

# Municipality Budget Management System

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Senior project submitted to the faculty of the  
Department of Computer Science  
College of Computer Studies, Ateneo de Naga University  
in partial fulfillment of the requirements for the degree of

Bachelor of Science  
Information Technology

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Rey Herman R. Vidallo, MCS  
Glenn G. Fabia

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The Senior Project entitled

**Municipality Budget Management System**

developed by

**Kevin Mark L. Montesclaros**

and submitted in partial fulfillment of the requirements of the Bachelor of Science in Information Technology degree has been rigorously examined and recommended for approval and acceptance.

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and submitted in partial fulfillment of the requirements of the Bachelor of Science in Information Technology degree is hereby approved and accepted by the Department of Computer Science, College of Computer Studies, Ateneo de Naga University.

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## **Municipality Budget Management System**

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### **Department of Computer Science, Ateneo de Naga University**

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I also declare that the intellectual content of this senior project is the product of my own work. I conceptualized, designed, encoded, and debugged the source code of the core programs in my senior project. The source code of third party APIs and library functions used in my program are explicitly cited and acknowledged in my senior project documentation. Also duly acknowledged are the assistance of others in minor details of editing and reproduction of the documentation.

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4 - Bachelor of Science in Information Technology

This declaration is witnessed by:

**Michelle Elija G. Buenagua**

Project Advisor

# Municipality Budget Management System

by

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Department of Computer Science

## **EXECUTIVE SUMMARY**

Municipality Budget Management System is a stand-alone system that will manage the budget preparations of a municipality. Its main purpose is to secure and automate all the process of managing the budgetary of a municipality fast and efficient by allowing the budget aide to take full control over budget entries, accounts and responsibility centres. It will also perform calculations of accounts, set up municipal profile, create user accounts, import accounts and responsibility centres, and generate a log file, statistics and reports in a specified format necessary in a municipality. Microsoft Visual C# and MySQL are the primary tools for the development and implementation of this project.

I dedicate this project to the Budget Aides and Budget Officers of the various municipalities in Bicol. This is for you guys!

# ACKNOWLEDGEMENTS

My senior project would not have been possible to accomplish without the help from my family, my mother Emylin Montesclaros specially because she was always there with full of love, for the encouragements, for the advices , the guidances and prayers. Also for assisting me the right attire and the right snacks for my defenses, not to mention scaring the heck out of me that I should pass my senior project, and of course for providing me some snacks when I'm hungry, my mom is the best. My family as a whole, my brother Simon Paul Montesclaros, my sister Anthea Mae Montesclaros, my little brother Ian Montesclaros and my father Tom Montesclaros. They were my fuel that drove me to completing my senior project, they are my inspirations in life. Not to forget my advicer Ms. Michelle Elija Buenagua whose knowledge and suggestions has guided me in this proejct, also I salute my panelists Mr. Joshua Martinez, Mr. Glenn Fabia and Mr. Rey Vidallo for making my whole senior project experience worthwhile and not so miresable. My girlfriend Julie Ann also takes a credit, for the unending encouragement when I'm discourage to continue, raising my hopes when I'm hopeless, giving light at my darkest hour, and for the silly jokes that always cheers me up when I'm down. She never failed me and I am blessed to have her. Finally and foremost I thank God for all these people, it's truely a blessing to have them in my life, I could not ask for more. Without them I could not have successfully finished my senior project. With God nothing is impossible, with God my senior project was like taking a candy from a baby.

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# Chapter 1

## Introduction

### 1.1 Project Context

Our municipalities already deployed use of computers for their daily operations, projectors for certain presentations and biometric scanners for the daily time records of the employees etc. Our municipalities though are still relying in using a logbook or Microsoft Excel for storing budgetary. This can lead to many problems because it has a higher risk of losing data, inconsistent and slow in processing information's. Every day in a municipality, there is always a new transaction which should be recorded in the OBR logbook by the budget aide, pass to the Responsibility Centres logbook, then save in an excel file, just the same single budget entry to be recorded in different logbooks. Generating budgetary reports takes much longer up to 3 hours according to the budgetary aide of Canaman because of manual computations, checking for duplicated entries and other errors. Why not something that can finish everything with just a click of a button, and print the budgetary reports with filters and options. What their lacking is a computerize system, and the knowledge of its capabilities. What is the purpose of the computers they have if they are not going to maximize its potentials? Municipal Budget Management System can resolve these problems and increase the productivity of the budget aide of a municipality.

## 1.2 Purpose and Description

Municipality Budget Management System will serve as a tool for the budget aide to accurately input daily budget records, monitor expenditures, import accounts and responsibility centers, perform auto computations, create user accounts and generate a log file and reports for faster and efficient processing of information's and prevent unwanted personnels access to the budgetary. This will fix the inconsistencies and errors of processing information's and replace the use of logbook or Microsoft Excel for storing data of their budgetary.

## 1.3 Objectives

### 1.3.1 General Objectives

The project aims to develop a stand-alone system for efficient and effective in managing and processing information of municipality budgets, providing them a helpful tool in organizing their daily operations.

### 1.3.2 Specific Objectives

The following must be accomplished in order to achieve the general objectives:

- research, identify and analyze the main processes of the budgetary management and expenditures of the municipality;
- undergo a survey and ask for suggestions from municipalities that are necessary for the project;
- gather and analyze the data that are necessary for the project;
- design and develop a module that will add, edit and delete budgetary entries;
- design and develop a module for customizing the profile for a specific Municipal;
- design and develop a module for creating of user accounts;
- design and develop a module for importing of accounts and responsibility centres;
- design and develop a module that will generate a log file of all the actions that have occurred done by the budget aide; and

- design and develop a module that will generate Annual or Monthly Reports of the budgetary which can be printed or exported to various file formats.

## **1.4 Scope and Limitations**

The project is designed to create a tool for the municipals that will allow the budget aide to manage the daily budget records effectively. Modules developed in order to provide necessary operations for the budget aide. This project is limited to certain functionalities. The budget aides are the primary client of this project. This system will only be a tool for the budget aide of a municipality to automate the process of managing the budgetary and minimize the time in doing such work.

## Chapter 2

# Review of Related Systems and Related Literature

### 2.1 Budget Advisor 3.0.9.0

Budget Advisor 3.0.9.0 is an application that allows you to take control of your monthly budget and keep track of your money. Budget Advisor will give you a detailed breakdown of your spending and also provides detailed reporting and graphs of what you have budgeted against what you actually spent allowing you to see whether you have been budgeting effectively. All reports and graphs can be printed out allowing you to keep written records.

### 2.2 BudgetSimple 1.1.0.53

BudgetSimple 1.1.0.53 is a simple application was designed to be easy to use budget software that will help you create and track your budget in minutes. Features detailed reports, easy to use creation wizards. BudgetSimple for Windows is powerful, yet simple piece of software for creating budgets. BudgetSimple for Windows can keep help you find out where your money goes, with detailed reports, customized expense tracking and more.

## 2.3 Accounts and Budget 6. 0.1

Accounts and Budget 6. 0.1 is an application that offers you all the necessary tools to manage your bank accounts and your budgets. Accounts and Budget 6. 0.1 lets you perform the following tasks:

- Enter all your banking transactions (Expenses, income and transfers)
- Plan your periodic transactions
- Consult the balances of your accounts
- Consult the list of transactions
- Consult the notification of next transactions
- Study the summary of transactions
- Plan your budget.
- Split the transactions.
- Display the budgetary differences.
- Manage several financial currencies.
- Consult the statistics.
- Manage your portfolio.
- Import QIF, OFX, CSV files.
- Export the data to CSV, HTML, QIF, OFX files.

## Chapter 3

# Technical Background

### 3.1 Software

In able to develop the proposed system, the following tools are utilized.

#### 3.1.1 C# 4.0

A language developed in parallel with creation of the .NET runtime and is based on the object-oriented paradigm. The C# is part of the lineage of C-based languages which explain most of its syntactic features and object-oriented concepts that are borrowed from C/C++ and the multiple inheritance of interface is on the other hand inspired by Java. It also has some features of Visual Basic. Moreover it provides also rich set of namespaces, classes, methods and events for developing applications with graphical capabilities. Microsoft Visual C# is the programming language to develop this project.

#### 3.1.2 Microsoft Visual Studio 2010

Microsoft Visual Studio 2010 is a powerful IDE that ensures quality code throughout the entire application lifecycle, from design to deployment. Whether you are developing applications for SharePoint, the web, Windows, Windows Phone, and beyond, Visual Studio is your ultimate all-in-one solution. It can be used for the development of console and graphical user interface applications. It supports

many programming languages like Visual Basic .NET, C#, C++ and ASP.NET. Microsoft Visual Studio 2010 is the primary tool for the development and implementation of this project.

### **3.1.3 Microsoft .Net Framework 4.0**

The .NET Framework is a software framework that runs primarily on Microsoft Windows. It includes a large library and supports several programming languages which allows language interoperability (each language can use code written in other languages). The .NET Framework's Base Class Library provides user interface, data access, database connectivity, cryptography, web application development, numeric algorithms, and network communications. The .NET Framework is intended to be used by most new applications created for the Windows platform. Microsoft also produces a popular integrated development environment largely for .NET software called Visual Studio.

### **3.1.4 MySql 5.5.8**

MySQL is the world's most popular open source database software. With its superior speed, reliability, and ease of use, MySQL has become the preferred choice for Web, Web 2.0, SaaS, ISV, Telecom companies and forward-thinking corporate IT Managers because it eliminates the major problems associated with downtime, maintenance and administration for modern, online applications. The proponent used this software as the backend or database of the project. Storing all the needed information for the system is the primary purpose of this database management system. Such information are budget entries, charts of accounts, responsibility centers, employees etc.

### **3.1.5 MySql Connector NET 6.4.4**

Connector/.NET enables developers to easily create .NET applications that require secure, high-performance data connectivity with MySQL. It implements the required ADO.NET interfaces and integrates into ADO.NET aware tools. The proponent used MySQL Connector Net 6.4.4 to build the project using .NET language and MySQL.

### **3.1.6 MySQL Connector/ODBC 5.1**

The MySQL Connector/ODBC provides access to a MySQL database using the industry standard Open Database Connectivity (ODBC) API. MySQL Connector/ODBC provides both driver-

manager based and native interfaces to the MySQL database, with full support for MySQL functionality, including stored procedures, transactions and, with Connector/ODBC 5.1, full Unicode compliance. MySQL Connector/ODBC allows you to connect through applications and programming environments such as Microsoft Excel and Microsoft Access. The proponent used MySQL Connector/ODBC 5.1 for retrieving informations such as accounts and responsibility centres from a Microsoft Excel file.

### 3.1.7 MySQL Workbench 5.2

MySQL Workbench is a unified visual tool for database architects, developers, and DBAs. MySQL Workbench provides data modeling, SQL development, and comprehensive administration tools for server configuration, user administration, and much more. MySQL Workbench enables a DBA, developer, or data architect to visually design, model, generate, and manage databases. MySQL Workbench delivers visual tools for creating, executing, and optimizing SQL queries. The SQL Editor provides color syntax highlighting, reuse of SQL snippets, and execution history of SQL. It also enables developers to easily manage database connections and provides instant access to database schema and objects. MySQL Workbench provides a visual console to easily administer MySQL environments and gain better visibility into databases. Developers and DBAs can use the visual tools for configuring servers, administering users, and viewing database health.

## 3.2 Hardware

In able to run the program efficiently the following are the requirements:

- Standard PC hardware (mouse, keyboard, monitor, CPU)
- Pentium 2.3-megahertz (MHz)
- At least 1 Gigabytes (GB) of RAM
- At least 2 Gigabytes (GB) of available space on the hard disk
- Video Card
- CD-ROM or DVD-ROM drive

## Chapter 4

# Methodology

In developing Municipal Budget Management System, prototyping methodology was used. A prototyping methodology is a software development process which allows developers to create portions of the solution to demonstrate functionality and make the needed refinements before developing the final solution.

### 4.1 Systems Analysis

For the analysis of the proposed system, following steps were followed:

- gathering of information about the current system;
- gathering of information about the system development;
- defining system requirements; and
- defining how system will work.

Gathering data and information is necessary for the system efficiency and project completion. Analysis of the current manual budgetary of a municipality helped realize the system requirements. This includes the porting of the current system into a computer system that gives budget aides the efficiency to manage budgetaries, import account codes and responsibility centres and create monthly or annual reports.

## 4.2 Systems Design

### 4.2.1 Context Level Data Flow Diagram

The user will create new budget entries, responsibility centres, accounts, reports and employees. The Municipal Budget Management System will then send back notifications and budget summary to the user.

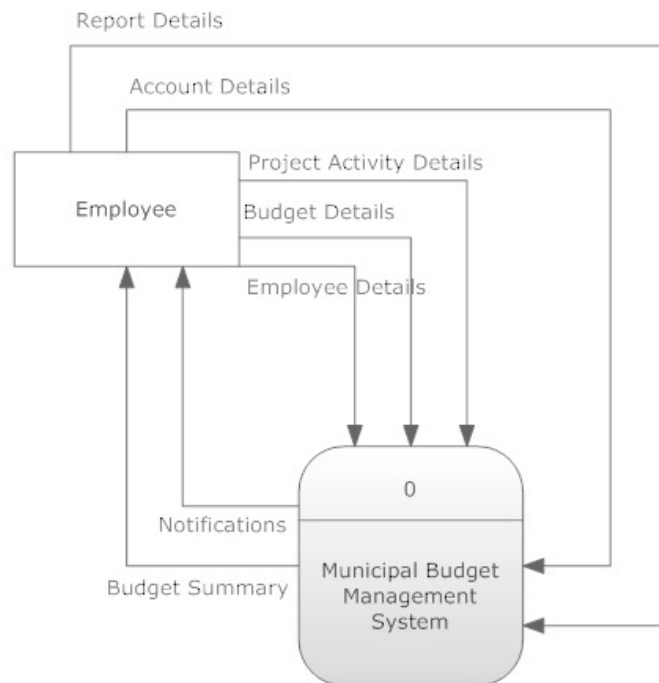


Figure 4.1: Context Level Data Flow Diagram

### 4.2.2 Level 1 Data Flow Diagram

The budget aide can create a new user account if none exists. The Register process will either save the information to the user's database or send back a notification if an invalid entry exist. The Login process will login the budget aide or send back a notification if user account is invalid. The budget aide proceeds with Create Entries process, inputting the budget detail which will either be

saved to the budget entries database or the process will send back a notification if budget entry is invalid. In setting up the Accounts and Responsibility Centres, the budget aide will input the account details and responsibility details to the Accounts database and Receptions, invalid Accounts and Responsibility Centres will send a notification to the budget aide. If desired, the budget aide can customize report details and content for the required report.

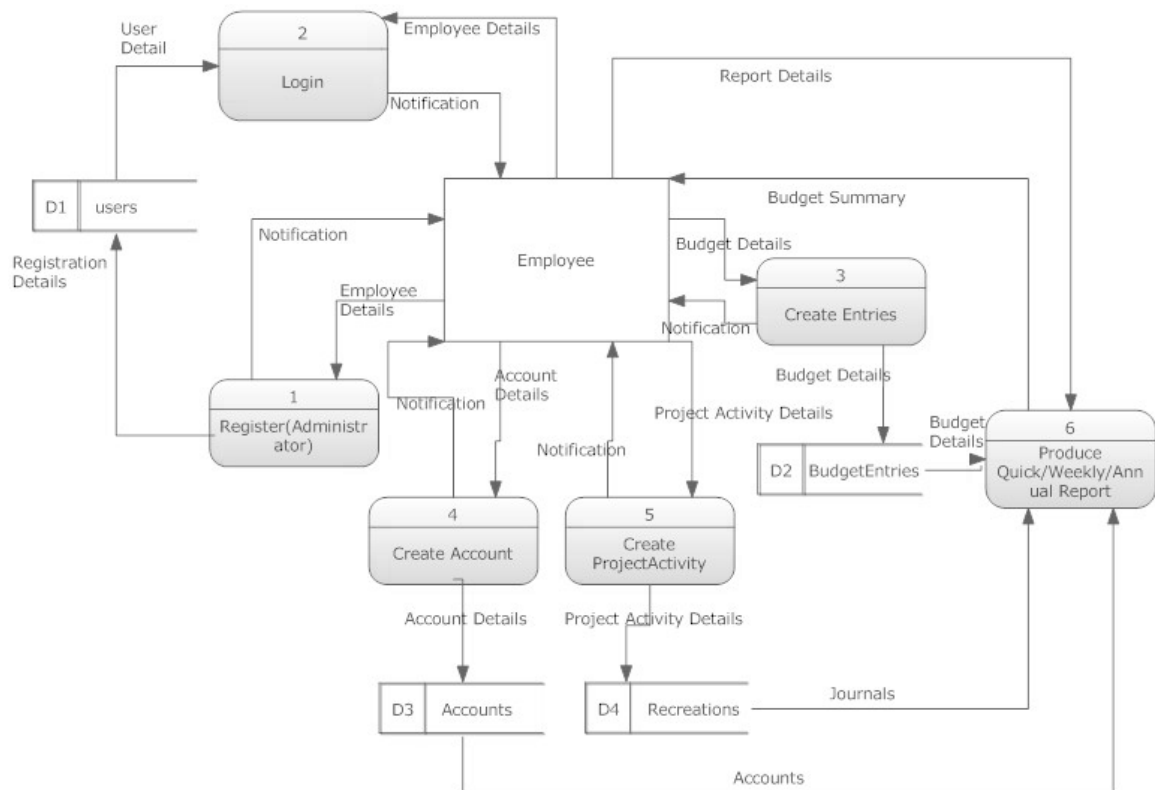


Figure 4.2: Level 1 Data Flow Diagram

### 4.2.3 Process Flow Diagram

The process starts with the user Login. If the username and password is valid, the budget aide can proceed to creating user accounts, setting up Budget Accounts and Responsibility Centres, creating new budget entries or creating reports. If the username and password is invalid, the budget aide

can retry to login until the username and password become valid or exit from the program.

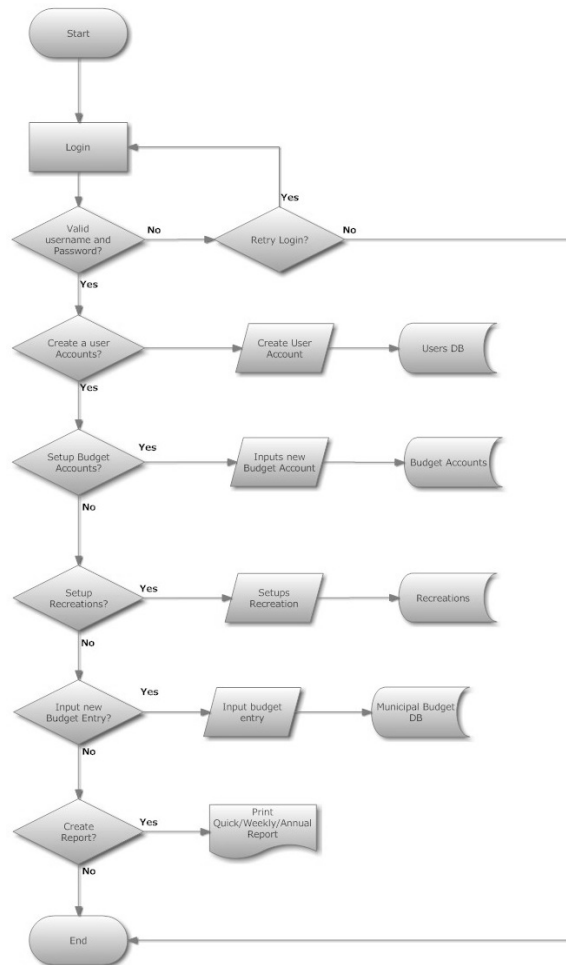


Figure 4.3: Process Flow Diagram

#### 4.2.4 Entity Relationship Diagram

An employee can create many budget entries. Budget entries will depend on one Account and one Responsibility Centre.

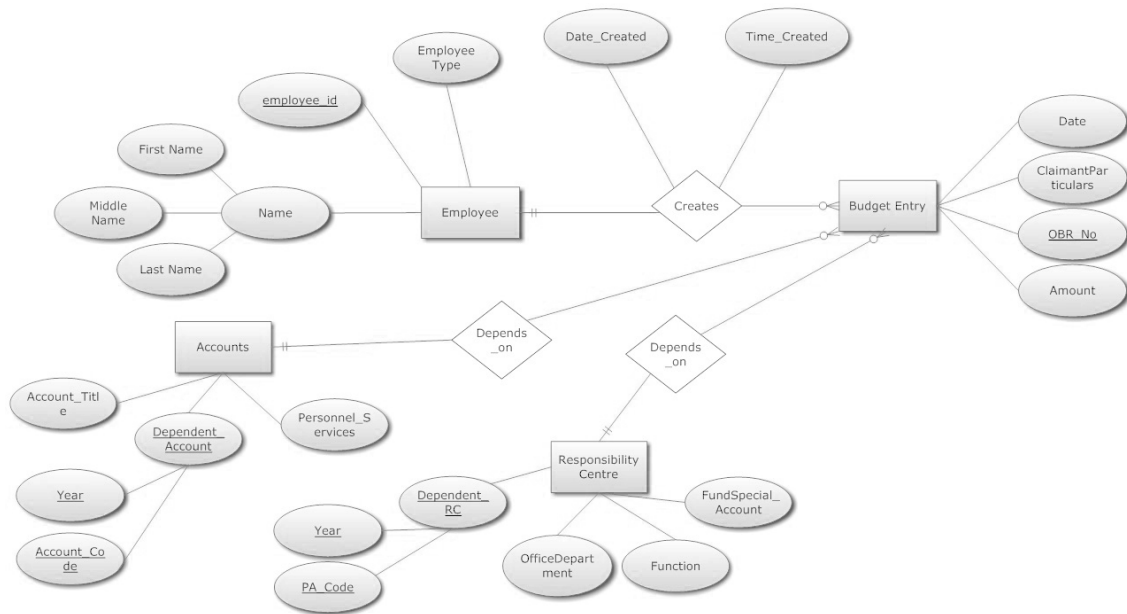


Figure 4.4: Entity Relationship Diagram

### 4.3 Requirements Specification

- Software
  - Windows Operating System
  - Microsoft Visual Studio 2010
  - Microsoft .Net Framework 4.0
  - MySQL Server 5.5.8
  - MySql Connector NET 6.4.4
  - MySQL Connector/ODBC 5.1
  - MySQL Workbench 5.2
- Hardware
  - Standard PC hardware (mouse, keyboard, monitor, CPU)
  - Pentium 2.3-megahertz (MHz)

- At least 1 Gigabytes (GB) of RAM
- At least 1 Gigabytes (GB) of RAM
- Video Card
- CD-ROM or DVD-ROM drive

## **4.4 Development and Testing**

The software was developed with the aid of Prototyping methodology wherein the Municipal Budget Management System was released and tested for revisions. It was tested in different platforms in various computers having a .Net Framework. As a stand-alone system it requires the .Net Framework to run properly.

## Chapter 5

# Contributions and Recommendations

The automation of processes in managing budgetaries of a municipality is the main contribution of this project. It will provide the budget aide an excellent management tool which is faster, more secure, accurate and effective in handling daily budgetaries of a municipality compared to the manual way of using logbook or Microsoft Excel. The system will cover the daily operational work of a budget aide such as adding daily budget entries, updating accounts and responsibility centres, and creating monthly or annual reports. It is generic so every municipality can make use of such program. Moreover, it is easy to install the system because of the built-in Installshield from Microsoft Visual Studio 2010 used for creating the installer. Although the system has many prerequisite programs, the installer will automatically detect missing prerequisite programs and install them automatically. The system is user friendly and flexible, has a clean and sleek interfaces, and is provided with step by step guides for setting up the connection string, municipal profile, accounts and responsibility centres; making it easy to operate. Further, it is cheaper as compared with online softwares as web administrator is not needed for maintenance.

# Appendix A

## Code Listing

### A.1 accountsDataGrid.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9
10 namespace MunicipalBudgetManagementSystem
11 {
12     public partial class accountsDataGrid : Form
13     {
14
15         accountsPageClass apClass = new accountsPageClass();
16
17
18         public static string id;
19
20         public static string a;
21
22         public accountsDataGrid ()
23         {
24             InitializeComponent ();
25         }
26
```

```
27     public string passYear { get; set; }
28
29
30
31
32
33
34     private void accountsDataGrid_Load(object sender, EventArgs e)
35     {
36
37         label3.Text = passYear;
38
39         apClass.GetData(passYear);
40
41         apClass.SelectedYear(dataGridView1, passYear);
42
43     }
44
45     private void button2_Click(object sender, EventArgs e)
46     {
47         Close();
48
49     }
50
51     private void button1_Click(object sender, EventArgs e)
52     {
53         DialogResult result = MessageBox.Show("Are you sure you want to Save?", "Save
54         Accounts?",
55         MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
56         Button2);
57
58         if (result == DialogResult.Yes)
59             apClass.SaveData();
60     }
61
62     private void dataGridView1_DataError(object sender, DataGridViewDataErrorEventArgs
63     e)
64     {
65         MessageBox.Show("Invalid entry or account code already exist", "Error",
66         MessageBoxButtons.OK, MessageBoxIcon.Error);
67     }
68
69     private void dataGridView1_CellClick(object sender, DataGridViewCellEventArgs e)
70     {
```

```
69         apClass.InitialiseDataAccessObjects2(passYear, dataGridView1);
70
71     }
72
73
74
75
76     }
77 }
```

## A.2 accountsPage.cs

```
1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;
4  using System.Data;
5  using System.Drawing;
6  using System.Linq;
7  using System.Text;
8  using System.Windows.Forms;
9  using System.Threading;
10
11 namespace MunicipalBudgetManagementSystem
12 {
13     public partial class accountsPage : Form
14     {
15         accountsPageClass apClass = new accountsPageClass();
16
17
18
19         public accountsPage()
20         {
21             InitializeComponent();
22         }
23
24         private void accountsPage_Load(object sender, EventArgs e)
25         {
26             // TODO: This line of code loads data into the 'mbmsDataSet.accounts' table.
27             You can move, or remove it, as needed.
28             //this.accountsTableAdapter.Fill(this.mbmsDataSet.accounts);
29             // TODO: This line of code loads data into the 'mbmsDataSet.accounts1' table.
30             You can move, or remove it, as needed.
31             this.accounts1TableAdapter.Fill(this.mbmsDataSet.accounts1);
32
33             apClass.InitialiseDataAccessObjects();
34             apClass.enableDeleteBtn(listBox1, button4);
35         }
36     }
37 }
```

```
33         apClass.enableEditBtn(listBox1, button3);
34
35     }
36
37
38     private void button1_Click(object sender, EventArgs e)
39     {
40
41
42         try
43         {
44
45             apClass.excel(accounts1TableAdapter, mbmsDataSet);
46
47             apClass.enableEditBtn(listBox1, button3);
48             apClass.enableDeleteBtn(listBox1, button4);
49         }
50
51         catch (Exception)
52         {
53             MessageBox.Show("The file has wrong formats or year already exists", "
54                 Error", MessageBoxButtons.OK, MessageBoxIcon.Error);
55         }
56
57     private void button3_Click(object sender, EventArgs e)
58     {
59         string selectedYear = listBox1.Text;
60
61         accountsDataGrid acctOpen = new accountsDataGrid();
62         acctOpen.passYear = selectedYear;
63         acctOpen.Show();
64     }
65
66     private void button4_Click(object sender, EventArgs e)
67     {
68         string selectedYear = listBox1.SelectedValue.ToString();
69
70
71         DialogResult result = MessageBox.Show("Are you sure you want to delete this
72             Year", "Delete Year",
73             MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
74                 Button2);
75
76         if (result == DialogResult.Yes)
77         {
```

```
76
77
78
79         accounts1BindingSource.RemoveCurrent();
80
81         this.accounts1TableAdapter.DeleteQuery(selectedYear);
82
83         apClass.enableEditBtn(listBox1, button3);
84         apClass.enableDeleteBtn(listBox1, button4);
85
86
87
88     }
89 }
90
91
92
93
94 }
95 }
```

### A.3 accountsPageClass.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using System.Data.OleDb;
10 using MySql.Data.MySqlClient;
11
12 namespace MunicipalBudgetManagementSystem
13 {
14     class accountsPageClass
15     {
16         public MySqlConnection connection = new MySqlConnection(loginPageClass.MyConnectionString);
17         public MySqlDataAdapter adapter;
18
19         public DataTable table = new DataTable();
20
21
22
```

```
23
24
25     public void InitialiseDataAccessObjects()
26     {
27
28
29         this.adapter = new MySqlDataAdapter("SELECT * FROM accounts", this.connection
30         );
31         MySqlCommand insert = new MySqlCommand("INSERT INTO accounts (acct_code ,
32         acct_title , acct_services , year) VALUES (@ac, @at, @as, @y)", this.
33         connection);
34
35         MySqlCommand update = new MySqlCommand("UPDATE accounts SET acct_code = @ac,
36         acct_title = @at, acct_services = @as, year = @y", this.connection);
37         MySqlCommand delete = new MySqlCommand("DELETE FROM accounts WHERE acct_code =
38         @ac", this.connection);
39
40         delete.Parameters.Add("@ac", MySqlDbType.Int32, 11, "acct_code");
41
42         insert.Parameters.Add("@ac", MySqlDbType.Int32, 11, "acct_code");
43         insert.Parameters.Add("@at", MySqlDbType.VarChar, 45, "acct_title");
44         insert.Parameters.Add("@as", MySqlDbType.VarChar, 45, "acct_services");
45         insert.Parameters.Add("@y", MySqlDbType.Year, 4, "year");
46
47         update.Parameters.Add("@ac", MySqlDbType.Int32, 11, "acct_code");
48         update.Parameters.Add("@at", MySqlDbType.VarChar, 45, "acct_title");
49         update.Parameters.Add("@as", MySqlDbType.VarChar, 45, "acct_services");
50         update.Parameters.Add("@y", MySqlDbType.Year, 4, "year");
51
52         this.adapter.DeleteCommand = delete;
53         this.adapter.InsertCommand = insert;
54         this.adapter.UpdateCommand = update;
55
56         this.adapter.MissingSchemaAction = MissingSchemaAction.AddWithKey;
57     }
58
59     public void enableEditBtn(ListBox lb, Button b)
60     {
61         if (lb.Text == "")
62
63             b.Enabled = false;
```

```
64         else
65
66             b.Enabled = true;
67     }
68
69     public void enableDeleteBtn(ListBox lb, Button b)
70     {
71         if (lb.Text == "")
72
73             b.Enabled = false;
74
75         else
76
77             b.Enabled = true;
78     }
79
80     public void InitialiseDataAccessObjects2(string passYear, DataGridView dg)
81     {
82         string a = dg["Account Code", dg.CurrentRow.Index].Value.ToString();
83
84         MySqlCommand update = new MySqlCommand("UPDATE accounts SET acct_code = @ac,
            acct_title = @at, acct_services = @as WHERE acct_code = '"+a+"' AND year =
            '" + passYear + "'", this.connection);
85
86
87         update.Parameters.Add("@ac", MySqlDbType.Int32, 11, "Account Code");
88
89         update.Parameters.Add("@at", MySqlDbType.VarChar, 45, "Account Title");
90         update.Parameters.Add("@as", MySqlDbType.VarChar, 45, "Account Services");
91
92         this.adapter.UpdateCommand = update;
93
94         this.adapter.MissingSchemaAction = MissingSchemaAction.AddWithKey;
95
96
97     }
98
99     public void getData(string passYear)
100    {
101
102        this.adapter = new MySqlDataAdapter("SELECT acct_code as 'Account Code',
            acct_title as 'Account Title', acct_services as 'Account Services' FROM
            accounts where year='"+passYear+"'", this.connection);
103
104        MySqlCommand insert = new MySqlCommand("INSERT INTO accounts (acct_code,
            acct_title, acct_services, year) VALUES (@ac, @at, @as, '" + passYear + "
```

```
        ')", this.connection);
105     MySqlCommand delete = new MySqlCommand("DELETE FROM accounts WHERE acct_code =
        @ac AND year = '" + passYear + "'", this.connection);
106
107
108     delete.Parameters.Add("@ac", MySqlDbType.Int32, 11, "Account Code");
109
110     insert.Parameters.Add("@ac", MySqlDbType.Int32, 11, "Account Code");
111     insert.Parameters.Add("@at", MySqlDbType.VarChar, 45, "Account Title");
112     insert.Parameters.Add("@as", MySqlDbType.VarChar, 45, "Account Services");
113
114     this.adapter.DeleteCommand = delete;
115     this.adapter.InsertCommand = insert;
116
117     this.adapter.MissingSchemaAction = MissingSchemaAction.AddWithKey;
118 }
119
120
121
122 public void GetData(DataGridView datagrid)
123 {
124     // Retrieve the data.
125
126
127     adapter.Fill(table);
128
129     datagrid.DataSource = table;
130
131
132     // The table can be used here to display and edit the data.
133     // That will most likely involve data-binding but that is not a data access
        issue.
134 }
135
136 public void excel(mbmsDataSetTableAdapters.accounts1TableAdapter TA, mbmsDataSet
        DS)
137 {
138     OpenFileDialog ofd = new OpenFileDialog();
139
140
141
142     if (ofd.ShowDialog() == DialogResult.OK)
143     {
144
145         string path = System.IO.Path.GetFullPath(ofd.FileName);
146
```

```
147         string query = "SELECT * FROM [Sheet1$]";
148
149         OleDbConnection conn = new OleDbConnection();
150
151         conn.ConnectionString = @"Provider=Microsoft.ACE.OLEDB.12.0;Data Source =
            '' + path + '' + @";Extended Properties=""Excel 8.0;HDR=YES;IMEX=1;
            ImportMixedTypes=Text;TypeGuessRows=0""";
152
153         OleDbDataAdapter fag = new OleDbDataAdapter(query, conn);
154
155         fag.AcceptChangesDuringFill = false;
156
157
158         fag.Fill(table);
159
160
161         this.adapter.Update(this.table);
162
163
164
165
166
167         MessageBox.Show("Account Year Uploaded", "Accounts", MessageBoxButtons.OK,
            MessageBoxIcon.Information);
168
169         TA.Fill(DS.accounts1);
170
171
172
173     }
174
175     else
176     {
177
178         ofd.Dispose();
179     }
180 }
181
182
183 public void SaveData()
184 {
185     // Save the data.
186     this.adapter.Update(this.table);
187
188 }
189
```

```
190     public void ShowYear(ListBox lb)
191     {
192
193
194
195         DataSet years = new DataSet();
196
197         string selectYear = "Select DISTINCT Year FROM accounts";
198         adapter.SelectCommand = new MySqlCommand(selectYear, connection);
199
200
201         adapter.Fill(years);
202
203         int numero_righe = years.Tables[0].Rows.Count;
204         for (int i = 0; i <= numero_righe - 1; i++)
205         {
206             lb.Items.Add(years.Tables[0].Rows[i][0]);
207
208
209         };
210
211         lb.SelectedItem = years.Tables[0].Rows[0][0];
212
213     }
214     public void SelectedYear(DataGridView dg, string sy)
215     {
216
217
218         adapter.Fill(table);
219
220         dg.DataSource = table;
221
222
223     }
224
225 }
226 }
```

## A.4 budgetsPage.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
```

```
7 using System.Text;
8 using System.Windows.Forms;
9 using System.IO;
10
11 namespace MunicipalBudgetManagementSystem
12 {
13     public partial class budgetsPage : Form
14     {
15
16
17
18
19
20         public budgetsPage()
21         {
22             InitializeComponent();
23         }
24
25         private void bindingNavigatorAddNewItem_Click(object sender, EventArgs e)
26         {
27             newBudgetEntry newEnt = new newBudgetEntry();
28             newEnt.Show();
29         }
30
31
32
33         private void budgetsPage_Load(object sender, EventArgs e)
34         {
35
36             // TODO: This line of code loads data into the 'mbmsDataSet.budgets' table.
37             You can move, or remove it, as needed.
38             this.budgetsTableAdapter.Fill(this.mbmsDataSet.budgets);
39         }
40
41         private void splitContainer1_Panel2_Paint(object sender, PaintEventArgs e)
42         {
43
44         }
45
46         private void dataGridView1_CellContentClick(object sender,
47             DataGridViewCellEventArgs e)
48         {
49             toolStripButton1.Enabled = true;
50             bindingNavigatorDeleteItem.Enabled = true;
51         }
```

```
51
52     private void comboBox2_SelectedIndexChanged(object sender, EventArgs e)
53     {
54
55     }
56
57     private void comboBox1_SelectedIndexChanged(object sender, EventArgs e)
58     {
59
60     }
61
62     private void bindingNavigatorAddNewItem_Click_1(object sender, EventArgs e)
63     {
64
65         newBudgetEntry newEnt = new newBudgetEntry();
66
67         newEnt.DS = mbmsDataSet;
68         newEnt.Show();
69
70
71
72     }
73
74
75
76     private void bindingNavigatorDeleteItem_Click(object sender, EventArgs e)
77     {
78
79
80
81         DataGridViewSelectedRowCollection selectedRow = dataGridView1.SelectedRows;
82         DialogResult result = MessageBox.Show("Are you sure you want to delete this
83         row?", "Delete Row",
84         MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
85         Button2);
86         string obrDB;
87
88         if (result == DialogResult.Yes)
89
90             budgetsBindingSource.RemoveCurrent();
91
92         obrDB = ((DataRowView) budgetsBindingSource.Current)["obr_no"].ToString();
93
94         this.budgetsTableAdapter.Update(this.mbmsDataSet.budgets);
```

```
95         // Create a writer and open the file :
96         StreamWriter log;
97
98         if (!File.Exists("budgetlog.txt"))
99         {
100             log = new StreamWriter("budgetlog.txt");
101         }
102         else
103         {
104             log = File.AppendText("budgetlog.txt");
105         }
106
107         // Write to the file :
108         log.WriteLine(DateTime.Now + " " + loginPageClass.current_login + "
            Deleted Budget Entry Where OBR # = " + obrDB);
109
110
111         log.WriteLine();
112
113         // Close the stream :
114         log.Close();
115
116     }
117
118     private void toolStripButton1_Click(object sender, EventArgs e)
119     {
120         editBudgetEntry eBE = new editBudgetEntry();
121
122
123         eBE.bs = budgetsBindingSource;
124
125         eBE.Show();
126     }
127
128
129 }
130 }
```

## A.5 editBudgetEntry.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
```

```
7 using System.Text;
8 using System.Windows.Forms;
9 using MySql.Data.MySqlClient;
10 using System.IO;
11
12 namespace MunicipalBudgetManagementSystem
13 {
14     public partial class editBudgetEntry : Form
15     {
16         public editBudgetEntry()
17         {
18             InitializeComponent();
19         }
20
21
22
23         MySqlConnection connection = new MySqlConnection(loginPageClass.MyConString);
24         MySqlConnection connection2 = new MySqlConnection(loginPageClass.MyConString);
25
26         string acct_titleDB;
27         string pa_codeDB;
28         string id;
29         string obrDB;
30
31
32         public BindingSource bs { get; set; }
33
34         /*----- Accounts
35
36         */
37
38         public void showAccounts()
39         {
40
41             comboBox4.Items.Clear();
42             acTB.Text = null;
43             comboBox4.Text = null;
44
45             MySqlDataAdapter adapter = new MySqlDataAdapter();
46
47             DataSet accountTitles = new DataSet();
48
49             string selectAccounts = "Select acct_title FROM accounts WHERE year= '" +
50                                     comboBox2.Text + "'";
51
52             adapter.SelectCommand = new MySqlCommand(selectAccounts, connection);
```

```
50
51
52     adapter.Fill(accountTitles);
53
54     int numero_righe = accountTitles.Tables[0].Rows.Count;
55     for (int i = 0; i <= numero_righe - 1; i++)
56     {
57         comboBox4.Items.Add(accountTitles.Tables[0].Rows[i][0]);
58
59
60     };
61
62
63
64
65
66
67     }
68
69     public void selectedAccounts()
70     {
71
72
73
74         string sqlSelect = "Select acct_code FROM accounts WHERE acct_title= '" +
75             comboBox4.SelectedItem.ToString() + "'";
76
77         MySqlCommand command = new MySqlCommand(sqlSelect, connection2);
78         command.Connection = connection2;
79         MySqlDataReader reader = null;
80         reader = command.ExecuteReader();
81
82         while (reader.Read())
83         {
84             acct_titleDB = reader["acct_code"].ToString();
85
86             acTB.Text = acct_titleDB;
87
88         }
89
90
91         reader.Close();
92
93
94
```

```
95     }
96
97     public void selectedAccountsCB()
98     {
99
100
101         string sqlSelect = "Select acct_title FROM accounts WHERE acct_code = '" +
102             acctB.Text + "'";
103
104         MySqlCommand command = new MySqlCommand(sqlSelect, connection);
105         command.Connection = connection;
106         MySqlDataReader reader = null;
107         reader = command.ExecuteReader();
108
109         while (reader.Read())
110         {
111             string acct_title = reader["acct_title"].ToString();
112
113             comboBox4.SelectedItem = acct_title;
114
115         }
116
117
118         reader.Close();
119
120
121     }
122
123
124     /*----- Responsibility Centre
125
126     public void showRC()
127     {
128
129         comboBox3.Items.Clear();
130         rcTB.Text = null;
131
132         comboBox3.Text = null;
133
134
135         MySqlDataAdapter adapter = new MySqlDataAdapter();
136
137         DataSet rcTitles = new DataSet();
```

```
138
139     string selectRC = "Select office_dept FROM departments WHERE year= '" +
140         comboBox1.Text + "'";
141
142     adapter.SelectCommand = new MySqlCommand(selectRC, connection);
143
144     adapter.Fill(rcTitles);
145
146     int numero_righe = rcTitles.Tables[0].Rows.Count;
147     for (int i = 0; i <= numero_righe - 1; i++)
148     {
149         comboBox3.Items.Add(rcTitles.Tables[0].Rows[i][0]);
150
151
152
153
154     };
155
156
157
158
159
160
161     }
162
163     public void selectedRC()
164     {
165
166
167
168
169
170     string sqlSelect = "Select pa_code FROM departments WHERE office_dept = '" +
171         comboBox3.SelectedItem.ToString() + "'";
172
173     MySqlCommand command = new MySqlCommand(sqlSelect, connection2);
174     command.Connection = connection2;
175     MySqlDataReader reader = null;
176     reader = command.ExecuteReader();
177
178     while (reader.Read())
179     {
180         pa_codeDB = reader["pa_code"].ToString();
181
```

```
182         rcTB.Text = pa_codeDB;
183
184     }
185
186
187     reader.Close();
188
189
190 }
191
192 public void selectedRCCB()
193 {
194
195     string sqlSelect = "Select office_dept FROM departments WHERE pa_code = '" +
196         rcTB.Text + "'";
197
198     MySqlCommand command = new MySqlCommand(sqlSelect, connection);
199     command.Connection = connection;
200     MySqlDataReader reader = null;
201     reader = command.ExecuteReader();
202
203     while (reader.Read())
204     {
205         string office_deptDB = reader["office_dept"].ToString();
206
207
208         comboBox3.SelectedItem = office_deptDB;
209
210     }
211
212
213     reader.Close();
214
215
216 }
217
218 /*
219
220
221 private void button2_Click(object sender, EventArgs e)
222 {
223     Close();
224 }
```

```
225
226     private void editBudgetEntry_Load(object sender, EventArgs e)
227     {
228         // TODO: This line of code loads data into the 'mbmsDataSet.accounts1' table.
                // You can move, or remove it, as needed.
229         this.accounts1TableAdapter.Fill(this.mbmsDataSet.accounts1);
230         // TODO: This line of code loads data into the 'mbmsDataSet.departments1'
                // table. You can move, or remove it, as needed.
231         this.departments1TableAdapter.Fill(this.mbmsDataSet.departments1);
232
233         connection.Open();
234         connection2.Open();
235
236         showRC();
237         showAccounts();
238
239         comboBox1.DataBindings.Add(new Binding("SelectedValue", bs, "dept_active"));
240         comboBox2.DataBindings.Add(new Binding("SelectedValue", bs, "acct_active"));
241         cpTB.DataBindings.Add(new Binding("Text", bs, "claimantparticulars"));
242         rcTB.DataBindings.Add(new Binding("Text", bs, "pa_code"));
243         acTB.DataBindings.Add(new Binding("Text", bs, "acct_code"));
244         obrTB.DataBindings.Add(new Binding("Text", bs, "obr_no"));
245         amTB.DataBindings.Add(new Binding("Text", bs, "amount"));
246         dateTimePicker1.DataBindings.Add(new Binding("Value", bs, "date"));
247
248         id = ((DataRowView)bs.Current)["id"].ToString();
249         obrDB = ((DataRowView)bs.Current)["obr_no"].ToString();
250
251
252
253
254     }
255
256     private void rcTB_TextChanged(object sender, EventArgs e)
257     {
258         selectedRCCB();
259     }
260
261     private void acTB_TextChanged(object sender, EventArgs e)
262     {
263         selectedAccountsCB();
264     }
265
266     private void comboBox1_SelectedIndexChanged(object sender, EventArgs e)
267     {
268         showRC();
```

```
269     }
270
271     private void comboBox2_SelectedIndexChanged(object sender, EventArgs e)
272     {
273         showAccounts();
274     }
275
276     private void comboBox3_SelectedIndexChanged(object sender, EventArgs e)
277     {
278         selectedRC();
279     }
280
281     private void comboBox4_SelectedIndexChanged(object sender, EventArgs e)
282     {
283         selectedAccounts();
284     }
285
286     private void amTB_KeyPress(object sender, KeyPressEventArgs e)
287     {
288         if (!char.IsControl(e.KeyChar)
289             && !char.IsDigit(e.KeyChar)
290             && e.KeyChar != '.')
291         {
292             e.Handled = true;
293         }
294
295         // only allow one decimal point
296         if (e.KeyChar == '.'
297             && (sender as TextBox).Text.IndexOf('.') > -1)
298         {
299             e.Handled = true;
300         }
301     }
302
303     private void button1_Click(object sender, EventArgs e)
304     {
305         DialogResult result = MessageBox.Show("Are you sure you want to Save?", "Save
306             Budget Entry",
307             MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
308             Button2);
309
310         if (result == DialogResult.Yes)
311         {
312             string deptYearActive = comboBox1.Text;
313             string acctYearActive = comboBox2.Text;
```

```

313
314
315
316     string claimantParticularsTB = cpTB.Text;
317     string recreationCodeTB = rcTB.Text;
318     string accountCodeTB = acTB.Text;
319
320     string obr = obrTB.Text;
321     string amountTB = amTB.Text;
322
323
324
325
326     string date = dateTimePicker1.Value.Year.ToString() + "-" +
        dateTimePicker1.Value.Month.ToString() + "-" + dateTimePicker1.Value.
        Day.ToString();
327
328     string inputDate = DateTime.Now.Year.ToString() + "-" + DateTime.Now.
        Month.ToString() + "-" + DateTime.Now.Day.ToString();
329     string inputTime = DateTime.Now.Hour.ToString() + ":" + DateTime.Now.
        Minute.ToString() + ":" + DateTime.Now.Second.ToString();
330
331     try
332     {
333         if (claimantParticularsTB == "" || recreationCodeTB == "" ||
            accountCodeTB == "" || amountTB == "" || obr == "")
334         {
335             MessageBox.Show("Required field cannot be left blank", "Missing
                Fields", MessageBoxButtons.OK, MessageBoxIcon.Information,
                MessageBoxDefaultButton.Button1);
336         }
337
338         else
339         {
340
341             if (accountCodeTB == acct_titleDB & recreationCodeTB == pa_codeDB
                )
342             {
343
344                 string insertquery = "UPDATE budgets SET date =" + date + "
                    ' , claimantparticulars = ' + claimantParticularsTB + "
                    ' , pa_code = ' + recreationCodeTB + "', acct_code = ' +
                    + accountCodeTB + "', obr_no = ' + obr + "', amount = ' +
                    + amountTB + "', acct_active = ' + acctYearActive + "',
                    dept_active = ' + deptYearActive + "' where id = ' +
                    id + "'";

```

```
345 MySqlCommand command = new MySqlCommand(insertquery ,
346     connection);
347 command.Connection = connection;
348
349 command.ExecuteNonQuery();
350
351 Close();
352
353
354 MessageBox.Show("Budget Entry Changes Saved", "Budget Entry",
355     MessageBoxButtons.OK, MessageBoxIcon.Information);
356
357 // Create a writer and open the file:
358 StreamWriter log;
359
360 if (!File.Exists("budgetlog.txt"))
361 {
362     log = new StreamWriter("budgetlog.txt");
363 }
364 else
365 {
366     log = File.AppendText("budgetlog.txt");
367 }
368
369 // Write to the file:
370 log.WriteLine(DateTime.Now + " " + loginPageClass.
371     current_login + " Edited Budget Entry Where OBR # = " +
372     obrDB + " To");
373 log.WriteLine("OBR #: " + obr + " Date: " + date + " Claimant
374     /Particulars: " + claimantParticularsTB);
375 log.WriteLine("Recreation Code: " + recreationCodeTB + "
376     Account Code: " + accountCodeTB + " Amount: " + amountTB
377     + " Account Active: " + acctYearActive + " RC Active: " +
378     deptYearActive);
379
380 log.WriteLine();
381
382 // Close the stream:
383 log.Close();
384
385
386
387
388
389
390
391 bs.ResetBindings(true);
392
```

```
383 //budgetsTableAdapter.Fill(DS.budgets);
384
385     }
386
387     else
388
389         MessageBox.Show("Invalid Responsibility Centre or Account
            Code", "Invalid Field", MessageBoxButtons.OK,
            MessageBoxIcon.Information, MessageBoxDefaultButton.
            Button1);
390
391
392     }
393
394     }
395
396
397     catch (Exception)
398     {
399         MessageBox.Show("OBR # Already Exist", "Invalid OBR #",
            MessageBoxButtons.OK, MessageBoxIcon.Information,
            MessageBoxDefaultButton.Button1);
400     }
401
402     }
403
404 }
405
406
407 private void obrTB_KeyPress(object sender, KeyPressEventArgs e)
408 {
409     if (!char.IsControl(e.KeyChar)
410         && !char.IsDigit(e.KeyChar)
411         && e.KeyChar != '-')
412     {
413         e.Handled = true;
414     }
415 }
416 }
417 }
```

## A.6 editUserAccount.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
```

```
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using System.Data.Common;
10 using MySql.Data.MySqlClient;
11
12
13 namespace MunicipalBudgetManagementSystem
14 {
15     public partial class editUserAccount : Form
16     {
17         public editUserAccount()
18         {
19             InitializeComponent();
20         }
21
22         public BindingSource bs { get; set; }
23
24
25
26         private void button2_Click(object sender, EventArgs e)
27         {
28             Dispose();
29         }
30
31         private void button1_Click(object sender, EventArgs e)
32         {
33             string fname = firstNameTB.Text;
34             string mname = middleNameTB.Text;
35             string lname = lastNameTB.Text;
36             string empID = empIDTB.Text;
37
38             string username = usernameTB.Text;
39             string password = passwordTB.Text;
40
41             string inputDate = DateTime.Now.Year.ToString() + "-" + DateTime.Now.Month.
                ToString() + "-" + DateTime.Now.Day.ToString();
42             string inputTime = DateTime.Now.Hour.ToString() + ":" + DateTime.Now.Minute.
                ToString() + ":" + DateTime.Now.Second.ToString();
43
44
45             MySqlConnection connection = new MySqlConnection(loginPageClass.MyConString);
46
47             try
```

```
48         {
49             connection.Open();
50             if (firstNameTB.Text == "" || middleNameTB.Text == "" || lastNameTB.Text
51                 == "" || usernameTB.Text == "" || passwordTB.Text == "")
52             {
53                 MessageBox.Show("Required field cannot be left blank", "Missing Fields
54                     ", MessageBoxButtons.OK, MessageBoxIcon.Information,
55                     MessageBoxDefaultButton.Button1);
56             }
57
58             else
59             {
60                 if (passwordTB.Text == rpPasswordTB.Text)
61                 {
62                     mbmsDataSet mbmsDS = new mbmsDataSet();
63
64                     string updatequery = "UPDATE employees SET emp_id = '" + empID + "
65                         ', fname = '" + fname + "', mname = '" + mname + "', lname = '
66                         " + lname + "' WHERE username = '" + username + "'";
67                     MySqlCommand command = new MySqlCommand(updatequery, connection);
68                     command.Connection = connection;
69
70                     command.ExecuteNonQuery();
71                     Close();
72                     MessageBox.Show("Changes Saved");
73
74                     bs.ResetBindings(true);
75                 }
76
77             else
78             {
79                 MessageBox.Show("Password Does not match", "Invalid Password",
80                     MessageBoxButtons.OK, MessageBoxIcon.Information,
81                     MessageBoxDefaultButton.Button1);
82             }
83
84         catch (Exception)
85         {
86             MessageBox.Show("Employee ID already exist");
```

```
87         }
88
89     }
90
91     private void newUserAccount_Load(object sender, EventArgs e)
92     {
93
94
95
96         empIDTB.DataBindings.Add(new Binding("Text", bs, "emp.id"));
97         firstNameTB.DataBindings.Add(new Binding("Text", bs, "fname"));
98         middleNameTB.DataBindings.Add(new Binding("Text", bs, "mname"));
99         lastNameTB.DataBindings.Add(new Binding("Text", bs, "lname"));
100        usernameTB.DataBindings.Add(new Binding("Text", bs, "username"));
101
102
103    }
104 }
105 }
```

## A.7 homePage.cs

```
1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;
4  using System.Data;
5  using System.Drawing;
6  using System.Linq;
7  using System.Text;
8  using System.Windows.Forms;
9
10 namespace MunicipalBudgetManagementSystem
11 {
12     public partial class homePage : Form
13     {
14
15
16
17         public budgetsPage openBudgets { get; set; }
18         public accountsPage openAccounts { get; set; }
19         public responsibilityCentre openProjectActivity { get; set; }
20         public reportPage openReports { get; set; }
21         public userAccountsPage uAP { get; set; }
22
23
24
```

```
25     public HomePage()
26     {
27         InitializeComponent();
28     }
29
30     private void label2_Click(object sender, EventArgs e)
31     {
32
33     }
34
35     private void HomePage_Load(object sender, EventArgs e)
36     {
37
38         mbmsDataSetTableAdapters.employeesTableAdapter eTA = new
39             mbmsDataSetTableAdapters.employeesTableAdapter();
40         mbmsDataSetTableAdapters.departments1TableAdapter dTA = new
41             mbmsDataSetTableAdapters.departments1TableAdapter();
42         mbmsDataSetTableAdapters.accounts1TableAdapter aTA = new
43             mbmsDataSetTableAdapters.accounts1TableAdapter();
44
45         label9.Text = eTA.ScalarQuery().ToString();
46         label10.Text = aTA.ScalarQuery().ToString();
47         label11.Text = dTA.ScalarQuery().ToString();
48         label8.Text = budgetsTableAdapter.ScalarQuery().ToString();
49         label7.Text = DateTime.Now.ToLongDateString();
50     }
51
52     private void button3_Click(object sender, EventArgs e)
53     {
54
55         openProjectActivity.MdiParent = ActiveForm;
56         openProjectActivity.Show();
57         openProjectActivity.BringToFront();
58     }
59
60     private void button2_Click(object sender, EventArgs e)
61     {
62
63         openAccounts.MdiParent = ActiveForm;
64         openAccounts.Show();
65         openAccounts.BringToFront();
66     }
67 }
```

```
68
69     private void button1_Click(object sender, EventArgs e)
70     {
71
72         openBudgets.MdiParent = ActiveForm;
73         openBudgets.Show();
74         openBudgets.BringToFront();
75     }
76
77     private void button4_Click(object sender, EventArgs e)
78     {
79         openReports.MdiParent = ActiveForm;
80         openReports.Show();
81         openReports.BringToFront();
82     }
83
84
85     private void button8_Click(object sender, EventArgs e)
86     {
87         string calc = "calc";
88
89         System.Diagnostics.Process.Start(calc);
90     }
91
92
93     private void button9_Click(object sender, EventArgs e)
94     {
95         uAP.MdiParent = ActiveForm;
96         uAP.Show();
97         uAP.BringToFront();
98     }
99
100    private void button5_Click_1(object sender, EventArgs e)
101    {
102        municipalProfile mP = new municipalProfile();
103
104        mP.Show();
105    }
106    }
107
108 }
109 }
```

## A.8 loginPage.cs

```
1 using System;
```

```
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using System.Configuration;
10
11
12
13 namespace MunicipalBudgetManagementSystem
14 {
15     public partial class loginPage : Form
16     {
17
18         homePage home = new homePage();
19         budgetsPage openBudgets = new budgetsPage();
20         accountsPage openAccounts = new accountsPage();
21         responsibilityCentre openProjectActivity = new responsibilityCentre();
22         reportPage openReports = new reportPage();
23         userAccountsPage uAP = new userAccountsPage();
24         loginPageClass IPC = new loginPageClass();
25         municipalProfile mP = new municipalProfile();
26
27
28         mbmsDataSet ds = new mbmsDataSet();
29
30         public loginPage()
31         {
32
33             InitializeComponent();
34
35         }
36
37
38
39         private void Form1_Load(object sender, EventArgs e)
40         {
41
42             IPC.getMunicipalProfile();
43             toolStripButton1.Enabled = false;
44             toolStripButton2.Enabled = false;
45             toolStripButton3.Enabled = false;
46             toolStripButton4.Enabled = false;
47             toolStripButton5.Enabled = false;
```

```
48         toolStripButton7.Enabled = false;
49
50         toolStripButton9.Enabled = false;
51         toolStripButton10.Enabled = false;
52
53         toolStripButton1.Text = loginPageClass.town;
54
55
56     }
57
58
59
60     private void button1_Click(object sender, EventArgs e)
61     {
62
63
64
65         // Get the application configuration file.
66         System.Configuration.Configuration config =
67             ConfigurationManager.OpenExeConfiguration(
68                 ConfigurationUserLevel.None);
69
70
71
72         config.Save(ConfigurationSaveMode.Modified);
73         // Create a connection string element and
74         // save it to the configuration file.
75
76
77         // Create a connection string element.
78         ConnectionStringSettings csSettings =
79             new ConnectionStringSettings("My Connection",
80                 "LocalSqlServer: data source=127.0.0.1;Integrated Security=SSPI;" +
81                 "Initial Catalog=aspnetdb", "System.Data.SqlClient");
82
83         // Get the connection strings section.
84         ConnectionStringsSection csSection =
85             config.ConnectionStrings;
86
87
88
89         // Add the new element.
90         //csSection.ConnectionStrings.Add(csSettings);
91
92
```

```
93
94     // Save the configuration file.
95     config.Save(ConfigurationSaveMode.Modified);
96
97     string usernametb = usernameBox.Text;
98     string passwordtb = passwordBox.Text;
99
100    if (loginPageClass.trylogin(usernametb, passwordtb) == true)
101    {
102
103
104        home.MdiParent = this;
105
106        home.Show();
107
108        panel1.Dispose();
109
110        toolStripButton1.Enabled = true;
111        toolStripButton2.Enabled = true;
112        toolStripButton3.Enabled = true;
113        toolStripButton4.Enabled = true;
114        toolStripButton5.Enabled = true;
115
116        toolStripButton7.Enabled = true;
117
118        toolStripButton9.Enabled = true;
119        toolStripButton10.Enabled = true;
120
121        home.openBudgets = openBudgets;
122        home.openAccounts = openAccounts;
123        home.openProjectActivity = openProjectActivity;
124        home.openReports = openReports;
125        home.uAP = uAP;
126
127
128        toolStripDropDownButton1.Visible = false;
129
130        toolStripStatusLabel1.Text = "You are login as " + usernametb;
131
132    }
133
134
135    else
136    {
137        label3.ForeColor = System.Drawing.Color.DeepPink;
138        label3.Text = "Incorrect Username or Password";
```

```
139         }
140     }
141
142     private void exitToolStripMenuItem_Click(object sender, EventArgs e)
143     {
144         Close();
145     }
146
147
148
149     private void toolStripButton1_Click(object sender, EventArgs e)
150     {
151
152
153         home.MdiParent = this;
154         home.Show();
155         home.BringToFront();
156
157     }
158
159     private void toolStripContainer1_ContentPanel_Load_1(object sender, EventArgs e)
160     {
161
162     }
163
164
165     private void toolStripButton8_Click(object sender, EventArgs e)
166     {
167         DialogResult result = MessageBox.Show("Are you sure you want to Exit?", "Exit"
168         ,
169         MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
170         Button2);
171
172         if (result == DialogResult.Yes)
173             Close();
174     }
175
176     private void toolStripButton2_Click(object sender, EventArgs e)
177     {
178
179         openBudgets.MdiParent = this;
180         openBudgets.Show();
181         openBudgets.BringToFront();
182     }
```

```
183
184     }
185
186     private void toolStripButton10_Click(object sender, EventArgs e)
187     {
188
189         openAccounts.MdiParent = this;
190         openAccounts.Show();
191         openAccounts.BringToFront();
192
193     }
194
195     private void toolStripButton3_Click(object sender, EventArgs e)
196     {
197
198         openProjectActivity.MdiParent = this;
199         openProjectActivity.Show();
200         openProjectActivity.BringToFront();
201
202     }
203
204
205     }
206
207     private void toolStripButton9_Click(object sender, EventArgs e)
208     {
209
210         openReports.MdiParent = this;
211         openReports.Show();
212         openReports.BringToFront();
213
214     }
215
216     private void toolStripButton4_Click(object sender, EventArgs e)
217     {
218
219         uAP.MdiParent = this;
220         uAP.Show();
221         uAP.BringToFront();
222
223     }
224
225     private void toolStripButton5_Click(object sender, EventArgs e)
226     {
227         string calc = "calc";
228
```

```
229
230     System.Diagnostics.Process.Start(calc);
231 }
232
233     private void toolStripButton7_Click(object sender, EventArgs e)
234     {
235         municipalProfile mP = new municipalProfile();
236         mP.Show();
237     }
238 }
239
240     private void toolStripDropDownButton1_Click(object sender, EventArgs e)
241     {
242         new setupConnection().Show();
243     }
244 }
245
246 }
247 }
248 }
```

## A.9 loginPageClass.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Text;
5 using System.Windows.Forms;
6 using MySql.Data.MySqlClient;
7 using System.Configuration;
8
9
10 namespace MunicipalBudgetManagementSystem
11 {
12     class loginPageClass
13     {
14
15         public static string current_login;
16
17         public static string MyConString = Properties.Settings.Default["
            mbmsConnectionString"].ToString();
18
19
20
21
22         // public static string mysqUID;
```

```
23     // public static string mysqlPassword;
24
25
26     public static string town;
27     public static string province;
28     public static string rurbanCode;
29     public static string budgetAide;
30     public static string budgetOfficer;
31     public static string mayor;
32
33     //loginPage AF = new loginPage();
34
35
36
37
38     public void checkEmployee()
39     {
40         mbmsDataSet ds = new mbmsDataSet();
41
42         if (ds.employees.Rows.Count == 0)
43         {
44
45             userAccountSetUp uAS = new userAccountSetUp();
46
47
48             uAS.Show();
49             //AF.Hide();
50         }
51     }
52
53     public static bool trylogin(string username, string password)
54     {
55
56
57         MySqlConnection connection = new MySqlConnection(MyConString);
58
59         try
60         {
61             connection.Open();
62         }
63
64         catch (Exception)
65         {
66             MessageBox.Show("Unable to connect");
67
68
```

```
69         }
70
71         string selectQuery = "SELECT * from employees";
72
73
74         MySqlCommand command = new MySqlCommand(selectQuery , connection);
75         //command.Connection = connection;
76         MySqlDataReader reader = null;
77         reader = command.ExecuteReader();
78
79
80         while (reader.Read())
81         {
82
83             string username = reader["username"].ToString();
84             string password = reader["password"].ToString();
85
86             current_login = username;
87
88             if (username == username && password == password)
89             {
90
91
92                 return true;
93
94
95             }
96
97         }
98
99     }
100
101     return false;
102 }
103
104
105 public void getMunicipalProfile()
106 {
107
108
109     MySqlConnection connection = new MySqlConnection(MyConnectionString);
110
111     try
112     {
113         connection.Open();
114
```

```
115         string selectQuery = "SELECT * from municipal_profile where id=1";
116
117
118         MySqlCommand command = new MySqlCommand(selectQuery, connection);
119         command.Connection = connection;
120         MySqlDataReader reader = null;
121         reader = command.ExecuteReader();
122
123
124         while (reader.Read())
125         {
126
127             town = reader["town"].ToString();
128             province = reader["province"].ToString();
129             rurbanCode = reader["rurban_code"].ToString();
130             budgetAide = reader["budget_aide"].ToString();
131             budgetOfficer = reader["budget_officer"].ToString();
132             mayor = reader["mayor"].ToString();
133
134
135
136
137         }
138
139         reader.Dispose();
140     }
141
142     catch (Exception)
143     {
144         MessageBox.Show("Unable to connect");
145
146
147     }
148
149
150 }
151
152
153
154 }
155
156
157 }
```

## A.10 mbmsDataSet1.cs

```
1 namespace MunicipalBudgetManagementSystem {
2
3
4     public partial class mbmsDataSet {
5         partial class municipal_profileDataTable
6         {
7         }
8
9         partial class budgetsDataTable
10        {
11        }
12    }
13 }
14
15 namespace MunicipalBudgetManagementSystem.mbmsDataSetTableAdapters {
16
17
18     public partial class departmentsTableAdapter {
19     }
20 }
```

## A.11 municipalProfile.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using System.Data.Common;
10 using MySql.Data.MySqlClient;
11
12 namespace MunicipalBudgetManagementSystem
13 {
14     public partial class municipalProfile : Form
15     {
16         loginPageClass IPC = new loginPageClass();
17
18         public municipalProfile()
19         {
20             InitializeComponent();
21         }
22
23         private void button2_Click(object sender, EventArgs e)
```

```
24     {
25         Close();
26     }
27
28     private void button1_Click(object sender, EventArgs e)
29     {
30         string municipalOf = mOfTB.Text;
31         string province = provinceTB.Text;
32         string rurbanCode = rcTB.Text;
33
34         string mayor = mayorTB.Text;
35
36         string budgetOfficer = boTB.Text;
37         string budgetAide = baTB.Text;
38
39         MySqlConnection connection = new MySqlConnection(loginPageClass.MyConString);
40
41         try
42         {
43             connection.Open();
44             if (mOfTB.Text == "" || provinceTB.Text == "" || rcTB.Text == "" ||
45                 mayorTB.Text == "" || boTB.Text == "" || baTB.Text == "")
46             {
47                 MessageBox.Show("Required field cannot be left blank", "Missing Fields",
48                     MessageBoxButtons.OK, MessageBoxIcon.Information,
49                     MessageBoxDefaultButton.Button1);
50             }
51
52             else
53             {
54
55                 mbmsDataSet mbmsDS = new mbmsDataSet();
56
57                 string updatequery = "UPDATE municipal_profile SET town = '" +
58                     municipalOf + "', province = '" + province + "', rurban_code =
59                     '" + rurbanCode + "', budget_aide = '" + budgetAide + "',
60                     budget_officer = '" + budgetOfficer + "', mayor = '" + mayor +
61                     "' WHERE id =1";
62                 MySqlCommand command = new MySqlCommand(updatequery, connection);
63                 command.Connection = connection;
64
65                 command.ExecuteNonQuery();
66                 Close();
67             }
68         }
69     }
70 }
```

```

63         municipalProfileBS.ResetBindings(true);
64
65         IPC.getMunicipalProfile();
66
67         MessageBox.Show("Municipal Profile Saved", "Municipal Profile",
68             MessageBoxButtons.OK, MessageBoxIcon.Information);
69     }
70
71     }
72
73
74     catch (Exception)
75     {
76         MessageBox.Show("Error");
77     }
78
79
80 }
81
82 private void municipalProfile_Load(object sender, EventArgs e)
83 {
84     // TODO: This line of code loads data into the 'mbmsDataSet.municipal_profile'
85     // table. You can move, or remove it, as needed.
86     this.municipal_profileTableAdapter.Fill(this.mbmsDataSet.municipal_profile);
87
88     mOfTB.DataBindings.Add(new Binding("Text", municipalProfileBS, "town"));
89     provinceTB.DataBindings.Add(new Binding("Text", municipalProfileBS, "province"
90     ));
91     rcTB.DataBindings.Add(new Binding("Text", municipalProfileBS, "rurban_code"));
92     mayorTB.DataBindings.Add(new Binding("Text", municipalProfileBS, "mayor"));
93     boTB.DataBindings.Add(new Binding("Text", municipalProfileBS, "budget_officer"
94     ));
95     baTB.DataBindings.Add(new Binding("Text", municipalProfileBS, "budget_aide"));
96
97 }
98 }

```

## A.12 newBudgetEntry.cs

```

1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;

```

```
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using MySql.Data.MySqlClient;
10 using System.IO;
11
12
13
14 namespace MunicipalBudgetManagementSystem
15 {
16     public partial class newBudgetEntry : Form
17     {
18
19
20
21         public mbmsDataSet DS { get; set; }
22
23
24
25         MySqlConnection connection = new MySqlConnection(loginPageClass.MyConString);
26         MySqlConnection connection2 = new MySqlConnection(loginPageClass.MyConString);
27
28         static string acct_titleDB;
29         static string pa_codeDB;
30
31         public newBudgetEntry()
32         {
33             InitializeComponent();
34         }
35
36         private void button2_Click(object sender, EventArgs e)
37         {
38             Dispose();
39         }
40
41 /*----- Accounts */
42
43         public void showAccounts()
44         {
45
46             comboBox4.Items.Clear();
47             acTB.Text = null;
48             comboBox4.Text = null;
```

```
49
50     MySqlConnection adapter = new MySqlConnection();
51
52     DataSet accountTitles = new DataSet();
53
54     string selectAccounts = "Select acct_title FROM accounts WHERE year= '" +
55         comboBox2.Text + "'";
56
57     adapter.SelectCommand = new MySqlCommand(selectAccounts, connection);
58
59     adapter.Fill(accountTitles);
60
61     int numero_righe = accountTitles.Tables[0].Rows.Count;
62     for (int i = 0; i <= numero_righe - 1; i++)
63     {
64         comboBox4.Items.Add(accountTitles.Tables[0].Rows[i][0]);
65
66
67     };
68
69
70 }
71
72 public void selectedAccounts()
73 {
74
75
76
77     string sqlSelect = "Select acct_code FROM accounts WHERE
78         acct_title= '" + comboBox4.SelectedItem.ToString() + "'";
79
80     MySqlCommand command = new MySqlCommand(sqlSelect, connection2);
81     command.Connection = connection2;
82     MySqlDataReader reader = null;
83     reader = command.ExecuteReader();
84
85     while (reader.Read())
86     {
87         acct_titleDB = reader["acct_code"].ToString();
88
89         acTB.Text = acct_titleDB;
90
91     }
92
```

```
93
94         reader.Close();
95
96
97
98     }
99
100     public void selectedAccountsCB()
101     {
102
103
104         string sqlSelect = "Select acct_title FROM accounts WHERE acct_code = '" +
105             acctTB.Text + "'";
106
107         MySqlCommand command = new MySqlCommand(sqlSelect, connection);
108         command.Connection = connection;
109         MySqlDataReader reader = null;
110         reader = command.ExecuteReader();
111
112         while (reader.Read())
113         {
114             string acct_title = reader["acct_title"].ToString();
115
116             comboBox4.SelectedItem = acct_title;
117
118         }
119
120
121         reader.Close();
122
123
124
125     }
126
127 /*----- Responsibility Centre -----*/
128
129     public void showRC()
130     {
131
132         comboBox3.Items.Clear();
133         rcTB.Text = null;
134
135         comboBox3.Text = null;
136
```

```
137
138     MySqlConnection adapter = new MySqlConnection();
139
140     DataSet rcTitles = new DataSet();
141
142     string selectRC = "Select office_dept FROM departments WHERE year= '" +
143         comboBox1.Text + "'";
144
145     adapter.SelectCommand = new MySqlCommand(selectRC, connection);
146
147     adapter.Fill(rcTitles);
148
149     int numero_righe = rcTitles.Tables[0].Rows.Count;
150     for (int i = 0; i <= numero_righe - 1; i++)
151     {
152         comboBox3.Items.Add(rcTitles.Tables[0].Rows[i][0]);
153
154
155
156
157     };
158
159 }
160
161 public void selectedRC()
162 {
163
164
165
166
167
168     string sqlSelect = "Select pa_code FROM departments WHERE office_dept = '" +
169         comboBox3.SelectedItem.ToString() + "'";
170
171     MySqlCommand command = new MySqlCommand(sqlSelect, connection2);
172     command.Connection = connection2;
173     MySqlDataReader reader = null;
174     reader = command.ExecuteReader();
175
176     while (reader.Read())
177     {
178         pa_codeDB = reader["pa_code"].ToString();
179
180         rcTB.Text = pa_codeDB;
```

```
181
182     }
183
184
185     reader.Close();
186
187 }
188
189 public void selectedRCCB()
190 {
191
192
193
194
195
196
197     string sqlSelect = "Select office_dept FROM departments WHERE pa_code = '" +
198         rcTB.Text + "'";
199
200     MySqlCommand command = new MySqlCommand(sqlSelect, connection);
201     command.Connection = connection;
202     MySqlDataReader reader = null;
203     reader = command.ExecuteReader();
204
205     while (reader.Read())
206     {
207         string office_deptDB = reader["office_dept"].ToString();
208
209         comboBox3.SelectedItem = office_deptDB;
210     }
211
212
213     reader.Close();
214
215 }
216
217 /*
218
219 */
220 private void button1_Click(object sender, EventArgs e)
221 {
222
223
```

```

224         string deptYearActive = comboBox1.Text;
225         string acctYearActive = comboBox2.Text;
226         string obr = obrTB.Text;
227
228
229         string claimantParticularsTB = cpTB.Text;
230         string recreationCodeTB = rcTB.Text;
231         string accountCodeTB = acTB.Text;
232
233         string amountTB = amTB.Text;
234
235
236
237
238         string date = dateTimePicker1.Value.Year.ToString() + "-" + dateTimePicker1.
                Value.Month.ToString() + "-" + dateTimePicker1.Value.Day.ToString();
239
240         string inputDate = DateTime.Now.Year.ToString() + "-" + DateTime.Now.Month.
                ToString() + "-" + DateTime.Now.Day.ToString();
241         string inputTime = DateTime.Now.Hour.ToString() + ":" + DateTime.Now.Minute.
                ToString() + ":" + DateTime.Now.Second.ToString();
242
243
244     try
245     {
246         if (claimantParticularsTB == "" || recreationCodeTB == "" || accountCodeTB
                == "" || amountTB == "" || obr == "")
247         {
248             MessageBox.Show("Required field cannot be left blank", "Missing Fields
                ", MessageBoxButtons.OK, MessageBoxIcon.Information,
                MessageBoxDefaultButton.Button1);
249         }
250
251     else
252     {
253
254         if (accountCodeTB == acct.titleDB & recreationCodeTB == pa.codeDB)
255         {
256
257             string insertquery = "INSERT INTO budgets (date,
                claimantparticulars, pa_code, acct_code, obr_no, amount,
                acct_active, dept_active, created_by, time_created,
                date_created) VALUES ('" + date + "', '" +
                claimantParticularsTB + "', '" + recreationCodeTB + "', '" +
                accountCodeTB + "', '" + obr + "', '" + amountTB + "', '" +
                acctYearActive + "', '" + deptYearActive + "', '" +

```

```
        loginPageClass.current_login + "','" + inputTime + "','" +
        inputDate + "') ";
258 MySqlCommand command = new MySqlCommand(insertquery , connection);
259 command.Connection = connection;
260
261
262 command.ExecuteNonQuery();
263
264
265
266 Close();
267
268
269 MessageBox.Show("Entry Successfully Added", "New Budget Entry",
        MessageBoxButtons.OK, MessageBoxIcon.Information);
270 budgetsTableAdapter.Fill(DS.budgets);
271
272
273
274 // Create a writer and open the file:
275 StreamWriter log;
276
277 if (!File.Exists("budgetlog.txt"))
278 {
279     log = new StreamWriter("budgetlog.txt");
280 }
281 else
282 {
283     log = File.AppendText("budgetlog.txt");
284 }
285
286 // Write to the file:
287 log.WriteLine(DateTime.Now + " " + loginPageClass.current_login +
        " Created New Budget entry");
288 log.WriteLine("OBR #: " + obr + " Date: " + date + " Claimant/
        Particulars: " + claimantParticularsTB);
289 log.WriteLine("Recreation Code: " + recreationCodeTB + " Account
        Code: " + accountCodeTB + " Amount: " + amountTB + " Account
        Active: " + acctYearActive + " RC Active: " + deptYearActive);
290
291 log.WriteLine();
292
293 // Close the stream:
294 log.Close();
295
296
```

```
297
298         }
299
300         else
301
302             MessageBox.Show("Invalid Responsibility Centre or Account Code", "
                Invalid Field", MessageBoxButtons.OK, MessageBoxIcon.
                Information, MessageBoxDefaultButton.Button1);
303
304
305     }
306 }
307
308     catch (Exception)
309     {
310         MessageBox.Show("OBR # Already Exist", "Invalid OBR #", MessageBoxButtons.
                OK, MessageBoxIcon.Information, MessageBoxDefaultButton.Button1);
311     }
312
313
314 }
315
316 private void label4_Click(object sender, EventArgs e)
317 {
318
319 }
320
321 private void rcTB_TextChanged(object sender, EventArgs e)
322 {
323     selectedRCCB();
324
325 }
326
327 private void acTB_TextChanged(object sender, EventArgs e)
328 {
329
330     selectedAccountsCB();
331
332 }
333
334
335
336
337 private void newBudgetEntry_Load(object sender, EventArgs e)
338 {
```

```
339         // TODO: This line of code loads data into the 'mbmsDataSet.accounts1' table.
340             You can move, or remove it, as needed.
341         this.accounts1TableAdapter.Fill(this.mbmsDataSet.accounts1);
342         // TODO: This line of code loads data into the 'mbmsDataSet.departments1'
343             table. You can move, or remove it, as needed.
344         this.departments1TableAdapter.Fill(this.mbmsDataSet.departments1);
345
346         connection.Open();
347         connection2.Open();
348
349         showRC();
350         showAccounts();
351
352     }
353
354     private void comboBox1_SelectedIndexChanged(object sender, EventArgs e)
355     {
356         showRC();
357     }
358
359     private void comboBox2_SelectedIndexChanged(object sender, EventArgs e)
360     {
361         showAccounts();
362     }
363
364     private void comboBox3_SelectedIndexChanged(object sender, EventArgs e)
365     {
366         selectedRC();
367     }
368
369     private void comboBox4_SelectedIndexChanged(object sender, EventArgs e)
370     {
371         selectedAccounts();
372     }
373
374     private void amTB_KeyPress(object sender, KeyPressEventArgs e)
375     {
376         if (!char.IsControl(e.KeyChar)
377             && !char.IsDigit(e.KeyChar)
378             && e.KeyChar != '.'))
379         {
380             e.Handled = true;
381         }
382     }
```

```
383         // only allow one decimal point
384         if (e.KeyChar == '.')
385             && (sender as TextBox).Text.IndexOf('.') > -1)
386         {
387             e.Handled = true;
388         }
389     }
390
391     private void obrTB_KeyPress(object sender, KeyPressEventArgs e)
392     {
393         if (!char.IsControl(e.KeyChar)
394             && !char.IsDigit(e.KeyChar)
395             && e.KeyChar != '-')
396         {
397             e.Handled = true;
398         }
399     }
400
401
402 }
403
404 }
405 }
```

### A.13 newUserAccount.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using MySql.Data.MySqlClient;
10
11 namespace MunicipalBudgetManagementSystem
12 {
13     public partial class newUserAccount : Form
14     {
15
16
17         public newUserAccount()
18         {
19             InitializeComponent();
20         }
```

```
21
22     public mbmsDataSet DS { get; set; }
23
24     private void button2_Click(object sender, EventArgs e)
25     {
26         Dispose();
27     }
28
29     private void button1_Click(object sender, EventArgs e)
30     {
31         string fname = firstNameTB.Text;
32         string mname = middleNameTB.Text;
33         string lname = lastNameTB.Text;
34         string empID = empIDTB.Text;
35
36         string username = usernameTB.Text;
37         string password = passwordTB.Text;
38
39
40
41         string inputDate = DateTime.Now.Year.ToString() + "-" + DateTime.Now.Month.
42             ToString() + "-" + DateTime.Now.Day.ToString();
43         string inputTime = DateTime.Now.Hour.ToString() + ":" + DateTime.Now.Minute.
44             ToString() + ":" + DateTime.Now.Second.ToString();
45
46         MySqlConnection connection = new MySqlConnection(loginPageClass.MyConString);
47
48         try
49         {
50             connection.Open();
51             if (firstNameTB.Text == "" || middleNameTB.Text == "" || lastNameTB.Text
52                 == "" || usernameTB.Text == "" || passwordTB.Text == "")
53             {
54                 MessageBox.Show("Required field cannot be left blank", "Missing Fields
55                     ", MessageBoxButtons.OK, MessageBoxIcon.Information,
56                     MessageBoxDefaultButton.Button1);
57             }
58
59             else
60             {
61                 if (passwordTB.Text == rpPasswordTB.Text)
62                 {
```

```
62
63         string insertquery = "INSERT INTO employees (emp_id,fname, mname,
                                lname, username, password, date_reg, time_reg) VALUES ('" +
                                empID + "'," + fname + "', '" + mname + "', '" + lname + "',
                                '" + username + "', '" + password + "', '" + inputDate + "'," +
                                + inputTime + "') ";
64         MySqlCommand command = new MySqlCommand(insertquery, connection);
65         command.Connection = connection;
66
67         command.ExecuteNonQuery();
68         Close();
69         MessageBox.Show("User Successfully Registered");
70         employeesTableAdapter.Fill(DS.employees);
71
72     }
73
74     else
75
76         MessageBox.Show("Password Does not match", "Invalid Password",
                            MessageBoxButtons.OK, MessageBoxIcon.Information,
                            MessageBoxDefaultButton.Button1);
77
78
79     }
80 }
81
82     catch (Exception)
83     {
84         MessageBox.Show("Employee ID or Username already exist");
85     }
86
87 }
88
89 }
90 }
```

## A.14 Program.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Windows.Forms;
5 using MySql.Data.MySqlClient;
6
7 namespace MunicipalBudgetManagementSystem
8 {
```

```
9
10
11  static class Program
12  {
13
14
15      /// <summary>
16      /// The main entry point for the application.
17      /// </summary>
18      [STAThread]
19      static void Main()
20      {
21          Application.EnableVisualStyles();
22          Application.SetCompatibleTextRenderingDefault(false);
23
24          MySqlConnection connection = new MySqlConnection(loginPageClass.MyConnectionString);
25
26          mbmsDataSetTableAdapters.employeesTableAdapter employee = new
                mbmsDataSetTableAdapters.employeesTableAdapter();
27          mbmsDataSetTableAdapters.municipal_profileTableAdapter municipal = new
                mbmsDataSetTableAdapters.municipal_profileTableAdapter();
28
29
30          //Application.Run(new setupConnection());
31          try
32          {
33              connection.Open();
34
35
36          }
37
38          catch (Exception)
39          {
40
41
42              Application.Run(new setupConnection());
43              loginPageClass.MyConnectionString = Properties.Settings.Default["
                mbmsConnectionString"].ToString();
44
45          }
46
47
48          try
49          {
50
51
```

```
52         string a = employee.ScalarQuery().ToString();
53         string b = municipal.ScalarQuery().ToString();
54
55         try
56         {
57             if (a == "0")
58             {
59                 Application.Run(new userAccountSetUp());
60
61             }
62
63             if (b == "0")
64             {
65
66                 Application.Run(new setupMunicipalProfile());
67
68             }
69
70
71             Application.Run(new loginPage());
72
73         }
74
75
76         catch (Exception)
77         {
78
79
80             if (b == "0")
81             {
82
83                 Application.Run(new setupMunicipalProfile());
84
85             }
86
87             Application.Run(new loginPage());
88
89         }
90
91
92
93
94     }
95
96     catch (Exception)
97     {
```

```
98         MessageBox.Show("Unable to connect to server", "Server Connection Failed",
99             MessageBoxButtons.OK, MessageBoxIcon.Error);
100     Application.Restart();
101     }
102
103
104
105     }
106
107 }
108 }
```

## A.15 ReportData.cs

```
1 namespace MunicipalBudgetManagementSystem {
2
3
4     public partial class ReportData {
5     }
6 }
7
8 namespace MunicipalBudgetManagementSystem.ReportDataTableAdapters {
9
10
11     public partial class reportDSTableAdapter
12     {
13     }
14 }
```

## A.16 reportPage.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using Microsoft.Reporting.WinForms;
10
11
12 namespace MunicipalBudgetManagementSystem
13 {
```

```
14     public partial class reportPage : Form
15     {
16
17         bool checktheme;
18         string reportTheme = null;
19
20         ReportParameter [] rp = new ReportParameter [7];
21
22         int pickYear;
23
24         int year;
25         int month;
26         int day;
27
28         DateTime chosenDate;
29
30         DateTime startDate;
31
32         public reportPage ()
33         {
34             InitializeComponent ();
35         }
36
37         private void reportPage_Load(object sender, EventArgs e)
38         {
39
40             for (int currentYear = DateTime.Today.Year; currentYear >= 2000; currentYear
41                 --)
42             {
43                 comboBox1.Items.Add(currentYear);
44
45
46             }
47
48             comboBox1.SelectedItem = DateTime.Today.Year;
49
50         }
51
52         private void reportViewer1_Load(object sender, EventArgs e)
53         {
54
55         }
56
57         private void button1_Click(object sender, EventArgs e)
58         {
```

```
59
60         checktheme = true;
61
62         year = dateTimePicker1.Value.Year;
63         month = dateTimePicker1.Value.Month;
64         day = dateTimePicker1.Value.Day;
65         pickYear = Int32.Parse(comboBox1.SelectedItem.ToString());
66
67         chosenDate = new DateTime(year, month, day);
68
69         startDate = new DateTime(pickYear, 01, 01);
70
71
72         if (corporateButton.Checked)
73             reportTheme = "MunicipalBudgetManagementSystem.Corporate.rdlc";
74
75         else if (forestButton.Checked)
76
77             reportTheme = "MunicipalBudgetManagementSystem.Forest.rdlc";
78
79         else if (genericButton.Checked)
80
81             reportTheme = "MunicipalBudgetManagementSystem.Generic.rdlc";
82
83         else if (mahoganyButton.Checked)
84             reportTheme = "MunicipalBudgetManagementSystem.Mahogany.rdlc";
85
86         else if (oceanButton.Checked)
87
88             reportTheme = "MunicipalBudgetManagementSystem.Ocean.rdlc";
89
90         else if (slateButton.Checked)
91
92             reportTheme = "MunicipalBudgetManagementSystem.Slate.rdlc";
93
94
95
96         // TODO: This line of code loads data into the 'DataSet1.DataTable1' table.
97             You can move, or remove it, as needed.
98         //this.DataTable1TableAdapter.Fill(this.DataSet1.DataTable1, startDate,
99             chosenDate);
100
101         //this.reportDSTableAdapter1.Fill(this.reportDS1.ReportData, startDate,
102             chosenDate);
```

```
101         this.reportDSTableAdapter1.Fill(this.reportData1.reportDS, startDate,
102             chosenDate);
103
104         rp[0] = new ReportParameter("date", dateTimePicker1.Text, false);
105         rp[1] = new ReportParameter("town", loginPageClass.town, false);
106         rp[2] = new ReportParameter("province", loginPageClass.province, false);
107         rp[3] = new ReportParameter("rurbancode", loginPageClass.rurbanCode, false);
108         rp[4] = new ReportParameter("budgetaide", loginPageClass.budgetAide, false);
109         rp[5] = new ReportParameter("budgetofficer", loginPageClass.budgetOfficer,
110             false);
111         rp[6] = new ReportParameter("mayor", loginPageClass.mayor, false);
112
113         this.reportViewer1.LocalReport.ReportEmbeddedResource = reportTheme;
114         this.reportViewer1.LocalReport.SetParameters(rp);
115         this.reportViewer1.RefreshReport();
116
117     }
118
119     private void dateTimePicker1_ValueChanged(object sender, EventArgs e)
120     {
121
122     }
123
124     private void reportViewer1_Load_1(object sender, EventArgs e)
125     {
126
127     }
128
129     private void comboBox1_SelectedIndexChanged(object sender, EventArgs e)
130     {
131
132         dateTimePicker1.Value = DateTime.Now;
133         int selectedYear = Int32.Parse(comboBox1.Text);
134         int currentYear = Int32.Parse(DateTime.Now.Year.ToString());
135
136         int chooseYear = currentYear - selectedYear;
137
138         dateTimePicker1.Value = dateTimePicker1.Value.AddYears(-chooseYear);
139
140
141
142     }
143
144     private void forestButton_CheckedChanged(object sender, EventArgs e)
```

```
145     {
146         if (checktheme == true)
147         {
148             reportTheme = "MunicipalBudgetManagementSystem.Forest.rdlc";
149             //this.DataTable1TableAdapter.Fill(this.DataSet1.DataTable1, startDate,
150                 chosenDate);
151
152
153             this.reportViewer1.LocalReport.ReportEmbeddedResource = reportTheme;
154             this.reportViewer1.LocalReport.SetParameters(rp);
155             this.reportViewer1.RefreshReport();
156
157         }
158     }
159 }
160
161 private void corporateButton_CheckedChanged(object sender, EventArgs e)
162 {
163     if (checktheme == true)
164     {
165         reportTheme = "MunicipalBudgetManagementSystem.Corporate.rdlc";
166         // this.DataTable1TableAdapter.Fill(this.DataSet1.DataTable1, startDate,
167             chosenDate);
168
169         this.reportViewer1.LocalReport.ReportEmbeddedResource = reportTheme;
170         this.reportViewer1.LocalReport.SetParameters(rp);
171         this.reportViewer1.RefreshReport();
172     }
173 }
174
175 private void genericButton_CheckedChanged(object sender, EventArgs e)
176 {
177     if (checktheme == true)
178     {
179         reportTheme = "MunicipalBudgetManagementSystem.Generic.rdlc";
180         // this.DataTable1TableAdapter.Fill(this.DataSet1.DataTable1, startDate,
181             chosenDate);
182
183         this.reportViewer1.LocalReport.ReportEmbeddedResource = reportTheme;
184         this.reportViewer1.LocalReport.SetParameters(rp);
185         this.reportViewer1.RefreshReport();
186     }
187 }
```

```
188
189     private void mahoganyButton_CheckedChanged(object sender, EventArgs e)
190     {
191         if (checktheme == true)
192         {
193             reportTheme = "MunicipalBudgetManagementSystem.Mahogany.rdlc";
194             // this.DataTable1TableAdapter.Fill(this.DataSet1.DataTable1, startDate,
                chosenDate);
195
196             this.reportViewer1.LocalReport.ReportEmbeddedResource = reportTheme;
197             this.reportViewer1.LocalReport.SetParameters(rp);
198             this.reportViewer1.RefreshReport();
199         }
200     }
201 }
202
203     private void oceanButton_CheckedChanged(object sender, EventArgs e)
204     {
205         if (checktheme == true)
206         {
207             reportTheme = "MunicipalBudgetManagementSystem.Ocean.rdlc";
208             // this.DataTable1TableAdapter.Fill(this.DataSet1.DataTable1, startDate,
                chosenDate);
209
210             this.reportViewer1.LocalReport.ReportEmbeddedResource = reportTheme;
211             this.reportViewer1.LocalReport.SetParameters(rp);
212             this.reportViewer1.RefreshReport();
213         }
214     }
215 }
216
217     private void slateButton_CheckedChanged(object sender, EventArgs e)
218     {
219         if (checktheme == true)
220         {
221             reportTheme = "MunicipalBudgetManagementSystem.Slate.rdlc";
222             // this.DataTable1TableAdapter.Fill(this.DataSet1.DataTable1, startDate,
                chosenDate);
223
224             this.reportViewer1.LocalReport.ReportEmbeddedResource = reportTheme;
225             this.reportViewer1.LocalReport.SetParameters(rp);
226             this.reportViewer1.RefreshReport();
227         }
228     }
229 }
230
```

```
231
232     }
233 }
```

## A.17 responsibilityCentre.cs

```
1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;
4  using System.Data;
5  using System.Drawing;
6  using System.Linq;
7  using System.Text;
8  using System.Windows.Forms;
9  using MySql.Data.MySqlClient;
10 using System.Data.OleDb;
11
12 namespace MunicipalBudgetManagementSystem
13 {
14     public partial class responsibilityCentre : Form
15     {
16         responsibilityCentreClass paClass = new responsibilityCentreClass();
17
18
19
20         public responsibilityCentre()
21         {
22             InitializeComponent();
23
24
25         }
26
27         private void projectsActivities_Load(object sender, EventArgs e)
28         {
29             // TODO: This line of code loads data into the 'mbmsDataSet.departments1'
30             table. You can move, or remove it, as needed.
31             this.departments1TableAdapter.Fill(this.mbmsDataSet.departments1);
32
33             paClass.InitialiseDataAccessObjects();
34
35             paClass.enableEditBtn(listBox1, button4);
36             paClass.enableDeleteBtn(listBox1, button1);
37
38         }
39
```

```
40
41
42
43     private void button2_Click(object sender, EventArgs e)
44     {
45         try
46         {
47             paClass.excel(departments1TableAdapter, mbmsDataSet);
48             //departments1BindingSource.ResetItem(0);
49             paClass.enableEditBtn(listBox1, button4);
50             paClass.enableDeleteBtn(listBox1, button1);
51         }
52
53         catch (Exception)
54         {
55             MessageBox.Show("The file has wrong formats or year already exists", "Error
56                 ", MessageBoxButtons.OK, MessageBoxIcon.Error);
57         }
58     }
59
60     private void button4_Click(object sender, EventArgs e)
61     {
62
63         string selectedYear = listBox1.Text;
64         ResponsibilityCentreDataGrid rcOpen = new ResponsibilityCentreDataGrid();
65         rcOpen.passYear = selectedYear;
66
67         rcOpen.Show();
68     }
69
70
71     private void button1_Click(object sender, EventArgs e)
72     {
73
74         string selectedYear = listBox1.SelectedValue.ToString();
75
76
77         DialogResult result = MessageBox.Show("Are you sure you want to delete this
78             Year", "Delete Year",
79             MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
80                 Button2);
81
82         if (result == DialogResult.Yes)
83         {
```

```
83
84         departments1BindingSource.RemoveCurrent();
85
86         this.departments1TableAdapter.DeleteQuery(selectedYear);
87
88         paClass.enableEditBtn(listBox1, button4);
89         paClass.enableDeleteBtn(listBox1, button1);
90
91     }
92 }
93
94
95
96
97
98
99
100
101
102
103
104
105     }
106 }
```

## A.18 responsibilityCentreClass.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9 using System.Data.OleDb;
10 using MySql.Data.MySqlClient;
11
12 namespace MunicipalBudgetManagementSystem
13 {
14     class responsibilityCentreClass
15     {
16
17
18         public MySqlConnection connection = new MySqlConnection(loginPageClass.
            MyConString);
```

```
19         public MySqlDataAdapter adapter;
20         public DataTable table = new DataTable();
21         public MySqlDataAdapter adapter2;
22
23         public mbmsDataSet.departmentsDataTable asd = new mbmsDataSet.
24             departmentsDataTable();
25
26         public mbmsDataSetTableAdapters.departmentsTableAdapter adapt = new
27             mbmsDataSetTableAdapters.departmentsTableAdapter();
28
29         public void InitialiseDataAccessObjects()
30         {
31
32             this.adapter = new MySqlDataAdapter("SELECT * FROM departments", this.
33                 connection);
34
35             //MySqlCommand delete = new MySqlCommand("DELETE FROM departments WHERE
36                 pa_code = @pc", this.connection);
37
38             MySqlCommand insert = new MySqlCommand("INSERT INTO departments (
39                 office_dept, function, proj_act, pa_code, fundspecial_acct, year)
40                 VALUES (@od, @f, @pa, @pc, @fa, @y)", this.connection);
41
42             MySqlCommand update = new MySqlCommand("UPDATE departments SET office_dept
43                 = @od, function = @f, proj_act = @pa, fundspecial_acct = @fa, year =
44                 @y WHERE pa_code = @pc", this.connection);
45
46             MySqlCommand delete = new MySqlCommand("DELETE FROM departments WHERE
47                 pa_code = @pc", this.connection);
48
49             delete.Parameters.Add("@pc", MySqlDbType.Int32, 11, "pa_code");
50
51             insert.Parameters.Add("@od", MySqlDbType.VarChar, 45, "office_dept");
52             insert.Parameters.Add("@f", MySqlDbType.VarChar, 45, "function");
53             insert.Parameters.Add("@pa", MySqlDbType.VarChar, 45, "proj_act");
54             insert.Parameters.Add("@pc", MySqlDbType.Int32, 4, "pa_code");
55             insert.Parameters.Add("@fa", MySqlDbType.VarChar, 8, "fundspecial_acct");
56             insert.Parameters.Add("@y", MySqlDbType.Year, 4, "year");
57
58             update.Parameters.Add("@od", MySqlDbType.VarChar, 45, "office_dept");
59             update.Parameters.Add("@f", MySqlDbType.VarChar, 45, "function");
60             update.Parameters.Add("@pa", MySqlDbType.VarChar, 45, "proj_act");
61             update.Parameters.Add("@pc", MySqlDbType.Int32, 4, "pa_code");
62             update.Parameters.Add("@fa", MySqlDbType.VarChar, 45, "fundspecial_acct");
63             update.Parameters.Add("@y", MySqlDbType.Year, 4, "year");
```

```
56
57
58
59     this.adapter.DeleteCommand = delete;
60     this.adapter.InsertCommand = insert;
61     this.adapter.UpdateCommand = update;
62
63     this.adapter.MissingSchemaAction = MissingSchemaAction.AddWithKey;
64
65 }
66
67 public void enableEditBtn(ListBox lb, Button b)
68 {
69     if (lb.Text == "")
70
71         b.Enabled = false;
72
73     else
74
75         b.Enabled = true;
76 }
77
78 public void enableDeleteBtn(ListBox lb, Button b)
79 {
80     if (lb.Text == "")
81
82         b.Enabled = false;
83
84     else
85
86         b.Enabled = true;
87 }
88
89 public void InitialiseDataAccessObjects2(string year, DataGridView dg)
90 {
91
92     string a = dg["Responsibility Centre", dg.CurrentRow.Index].Value.ToString
93         ();
94
95     MySqlCommand update = new MySqlCommand("UPDATE departments SET office_dept
96         = @od, function = @f, proj_act = @pa, pa_code = @pc, fundspecial_acct
97         = @fa WHERE pa_code = '"+a+"' AND year='"+ year + "'", this.
98         connection);
99
100    update.Parameters.Add("@od", MySqlDbType.VarChar, 45, "Office/Department")
101        ;
```

```
197         update.Parameters.Add("@f", MySqlDbType.VarChar, 45, "function");
198         update.Parameters.Add("@pa", MySqlDbType.VarChar, 45, "Project/Activity");
199         update.Parameters.Add("@pc", MySqlDbType.Int32, 4, "Responsibility Centre"
200             );
201         update.Parameters.Add("@fa", MySqlDbType.VarChar, 45, "Fund/Special
202             Account");
203
204         this.adapter2.UpdateCommand = update;
205
206         this.adapter2.MissingSchemaAction = MissingSchemaAction.AddWithKey;
207     }
208
209     public void adapter2asd(string year)
210     {
211
212         this.adapter2 = new MySqlDataAdapter("Select office_dept as 'Office/
213             Department', function as 'Function', proj_act as 'Project/Activity',
214             pa_code as 'Responsibility Centre', fundspecial_acct as 'Fund/Special
215             Account' FROM departments where year = '"+year+"' ", this.connection);
216
217         //MySqlCommand delete = new MySqlCommand("DELETE FROM departments WHERE
218             pa_code = @pc", this.connection);
219         MySqlCommand insert = new MySqlCommand("INSERT INTO departments (
220             office_dept, function, proj_act, pa_code, fundspecial_acct, year)
221             VALUES (@od, @f, @pa, @pc, @fa, '"+year+"' )", this.connection);
222
223         MySqlCommand delete = new MySqlCommand("DELETE FROM departments WHERE
224             pa_code = @pc AND year = ' " + year + " ' ", this.connection);
225
226         delete.Parameters.Add("@pc", MySqlDbType.Int32, 11, "Responsibility Centre
227             ");
228
229         insert.Parameters.Add("@od", MySqlDbType.VarChar, 45, "Office/Department")
230             ;
231         insert.Parameters.Add("@f", MySqlDbType.VarChar, 45, "function");
232         insert.Parameters.Add("@pa", MySqlDbType.VarChar, 45, "Project/Activity");
233         insert.Parameters.Add("@pc", MySqlDbType.Int32, 4, "Responsibility Centre"
234             );
235         insert.Parameters.Add("@fa", MySqlDbType.VarChar, 8, "Fund/Special Account
236             ");
```

```
130
131         //insert.Parameters.Add("@y", MySqlDbType.Year, 4, "year");
132
133
134
135
136
137
138
139
140
141
142         this.adapter2.DeleteCommand = delete;
143         this.adapter2.InsertCommand = insert;
144
145
146         this.adapter2.MissingSchemaAction = MissingSchemaAction.AddWithKey;
147
148     }
149
150
151
152     public void GetData(DataGridView datagrid)
153     {
154         // Retrieve the data.
155
156
157         adapter.Fill(table);
158
159         datagrid.DataSource = table;
160
161
162         // The table can be used here to display and edit the data.
163         // That will most likely involve data-binding but that is not a data
164         access issue.
165     }
166
167     public void excel(mbmsDataSetTableAdapters.departments1TableAdapter TA,
168                     mbmsDataSet DS)
169     {
170
171
172         if (ofd.ShowDialog() == DialogResult.OK)
173         {
```

```
174
175         string path = System.IO.Path.GetFullPath(ofd.FileName);
176
177         string query = "SELECT * FROM [Sheet1$]";
178
179         OleDbConnection conn = new OleDbConnection();
180
181         conn.ConnectionString = @"Provider=Microsoft.ACE.OLEDB.12.0;Data
            Source = ' + path + "' + @";Extended Properties=""Excel 8.0;HDR=
            YES;IMEX=1;ImportMixedTypes=Text;TypeGuessRows=0""";
182
183         OleDbDataAdapter fag = new OleDbDataAdapter(query, conn);
184
185
186
187         fag.AcceptChangesDuringFill = false;
188
189
190         fag.Fill(table);
191
192         this.adapter.Update(this.table);
193
194
195         MessageBox.Show("Responsibility Centre Year Uploaded", "Responsibility
            Centres", MessageBoxButtons.OK, MessageBoxIcon.Information);
196
197         TA.Fill(DS.departments1);
198
199         //datagrid.DataSource = table;
200
201
202
203
204
205     }
206
207     else
208     {
209
210         ofd.Dispose();
211
212     }
213 }
214
215
216 public void SaveData()
```

```
217         {
218
219
220
221             // Save the data.
222             //this.adapter.Update(this.table);
223
224             //adapt.Update(asd);
225             //adapt.Update(asd);
226
227             this.adapter2.Update(this.table);
228
229
230
231         }
232
233     public void ShowYear(ListBox lb)
234     {
235
236
237
238         DataSet years = new DataSet();
239
240         string selectYear = "Select DISTINCT Year FROM departments";
241         adapter.SelectCommand = new MySqlCommand(selectYear, connection);
242
243
244         adapter.Fill(years);
245
246         int numero_righe = years.Tables[0].Rows.Count;
247         for (int i = 0; i <= numero_righe - 1; i++)
248         {
249             lb.Items.Add(years.Tables[0].Rows[i][0]);
250         };
251
252         lb.SelectedItem = years.Tables[0].Rows[0][0];
253     }
254
255     public void SelectedYear(string sy, DataGridView dg)
256     {
257
258
259
260
261         /*
262         string path = System.IO.Path.GetFullPath(ofd.FileName);
```

```
263
264         string query = "SELECT * FROM [Sheet1$]";
265
266         OleDbConnection conn = new OleDbConnection();
267
268         conn.ConnectionString = @"Provider=Microsoft.ACE.OLEDB.12.0;Data
                Source = '" + path + "' + @";Extended Properties="Excel 8.0;HDR=
                YES;IMEX=1;ImportMixedTypes=Text;TypeGuessRows=0"";
269
270         OleDbDataAdapter fag = new OleDbDataAdapter(query, conn);
271
272
273
274         fag.AcceptChangesDuringFill = false;
275
276
277         fag.Fill(table);
278
279
280         datagrid.DataSource = table;
281
282         */
283
284
285
286
287         DataTable selectedYears = new DataTable();
288
289         string selectYear = "Select office_dept as 'Office/Department',
                function as 'Function', proj_act, pa_code, fundspecial_acct FROM
                departments WHERE year='"+sy+"'";
290
291         // adapter2.SelectCommand = new MySqlCommand(selectYear, connection);
292
293
294
295         adapter2.Fill(table);
296         //adapt.Fill(asd);
297         dg.DataSource = table;
298         //dg.DataSource = table;
299
300
301     }
302
303 }
304
```

```
305     }
```

## A.19 ResponsibilityCentreDataGrid.cs

```
1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;
4  using System.Data;
5  using System.Drawing;
6  using System.Linq;
7  using System.Text;
8  using System.Windows.Forms;
9
10
11 namespace MunicipalBudgetManagementSystem
12 {
13     public partial class ResponsibilityCentreDataGrid : Form
14     {
15         responsibilityCentreClass paClass = new responsibilityCentreClass();
16
17
18         public ResponsibilityCentreDataGrid()
19         {
20             InitializeComponent();
21         }
22
23         public string passYear { get; set; }
24
25
26         private void ResponsibilityCentre_Load(object sender, EventArgs e)
27         {
28             // TODO: This line of code loads data into the 'mbmsDataSet.departments' table
29             . You can move, or remove it, as needed.
30             //this.departmentsTableAdapter.FillBy(this.mbmsDataSet.departments, passYear);
31
32             label3.Text = passYear;
33             //paClass.InitialiseDataAccessObjects();
34
35             paClass.adapter2asd(passYear);
36
37             paClass.SelectedYear(passYear, dataGridView1);
38         }
39
40
41
```

```
42     private void button2_Click(object sender, EventArgs e)
43     {
44         Close();
45     }
46
47     private void button1_Click(object sender, EventArgs e)
48     {
49
50         DialogResult result = MessageBox.Show("Are you sure you want to Save?", "Save
51         new Departments",
52         MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
53         Button2);
54
55         if (result == DialogResult.Yes)
56
57             paClass.SaveData();
58
59     private void dataGridView1_DataError_1(object sender,
60     DataGridViewDataErrorEventArgs e)
61     {
62         MessageBox.Show("Invalid entry or responsibility code already exist", "Error",
63         MessageBoxButtons.OK, MessageBoxIcon.Error);
64
65     }
66
67     private void dataGridView1_CellClick(object sender, DataGridViewCellEventArgs e)
68     {
69         paClass.InitialiseDataAccessObjects2(passYear, dataGridView1);
70     }
71 }
```

## A.20 Settings.cs

```
1 namespace MunicipalBudgetManagementSystem.Properties {
2
3
4     // This class allows you to handle specific events on the settings class:
5     // The SettingChanging event is raised before a setting's value is changed.
6     // The PropertyChanged event is raised after a setting's value is changed.
7     // The SettingsLoaded event is raised after the setting values are loaded.
8     // The SettingsSaving event is raised before the setting values are saved.
9     internal sealed partial class Settings {
```

```
10
11     public Settings() {
12         // // To add event handlers for saving and changing settings, uncomment the
13             // lines below:
14         //
15         // this.SettingChanging += this.SettingChangingEventHandler;
16         //
17         // this.SettingsSaving += this.SettingsSavingEventHandler;
18         //
19     }
20
21     private void SettingChangingEventHandler(object sender, System.Configuration.
22         SettingChangingEventArgs e) {
23         // Add code to handle the SettingChangingEvent event here.
24     }
25
26     private void SettingsSavingEventHandler(object sender, System.ComponentModel.
27         CancelEventArgs e) {
28         // Add code to handle the SettingsSaving event here.
29     }
30 }
```

## A.21 setupConnection.cs

```
1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;
4  using System.Data;
5  using System.Drawing;
6  using System.Linq;
7  using System.Text;
8  using System.Windows.Forms;
9  using System.Configuration;
10
11 namespace MunicipalBudgetManagementSystem
12 {
13     public partial class setupConnection : Form
14     {
15
16         public static string connect;
17         public setupConnection()
18         {
19             InitializeComponent();
20         }
21     }
```

```
22     private void button1_Click(object sender, EventArgs e)
23     {
24         System.Configuration.Configuration config =
25             ConfigurationManager.OpenExeConfiguration(
26                 ConfigurationUserLevel.None);
27
28
29
30         //config.Save(ConfigurationSaveMode.Modified);
31         // Create a connection string element and
32         // save it to the configuration file.
33
34
35         // Create a connection string element.
36         ConnectionStringSettings csSettings =
37             new ConnectionStringSettings("MunicipalBudgetManagementSystem.
38                 Properties.Settings.mbmsConnectionString",
39                 "server="+serverTB.Text+" ";User Id="+uidTB.Text+" ";database="+dbTB.
40                 Text+" ";password="+pwTB.Text+" ";Persist Security Info=True", "
41                 MySql.Data.MySqlClient");
42
43         // Get the connection strings section.
44         ConnectionStringsSection csSection =
45             config.ConnectionStrings;
46
47         csSection.ConnectionStrings.Remove("MunicipalBudgetManagementSystem.Properties
48             .Settings.mbmsConnectionString");
49
50         // Add the new element.
51         csSection.ConnectionStrings.Add(csSettings);
52
53         config.Save(ConfigurationSaveMode.Modified);
54
55         ConfigurationManager.RefreshSection("connectionStrings");
56
57         Properties.Settings.Default.Reload();
58
59
60         Close();
61     }
62
63
```

```
64
65     private void button2_Click(object sender, EventArgs e)
66     {
67         Environment.Exit(1);
68     }
69 }
70 }
```

## A.22 setupMunicipalProfile.cs

```
1  using System;
2  using System.Collections.Generic;
3  using System.ComponentModel;
4  using System.Data;
5  using System.Drawing;
6  using System.Linq;
7  using System.Text;
8  using System.Windows.Forms;
9  using MySql.Data.MySqlClient;
10
11 namespace MunicipalBudgetManagementSystem
12 {
13     public partial class setupMunicipalProfile : Form
14     {
15
16         loginPageClass IPC = new loginPageClass();
17
18         public setupMunicipalProfile()
19         {
20             InitializeComponent();
21         }
22
23         private void button1_Click(object sender, EventArgs e)
24         {
25             string municipalOf = mOfTB.Text;
26             string province = provinceTB.Text;
27             string rurbanCode = rcTB.Text;
28
29             string mayor = mayorTB.Text;
30
31             string budgetOfficer = boTB.Text;
32             string budgetAide = baTB.Text;
33
34             MySqlConnection connection = new MySqlConnection(loginPageClass.MyConString);
35
36             try
```

```
37         {
38             connection.Open();
39             if (mOfTB.Text == "" || provinceTB.Text == "" || rcTB.Text == "" ||
40                 mayorTB.Text == "" || boTB.Text == "" || baTB.Text == "")
41             {
42                 MessageBox.Show("Required field cannot be left blank", "Missing Fields
43                     ", MessageBoxButtons.OK, MessageBoxIcon.Information,
44                     MessageBoxDefaultButton.Button1);
45             }
46         }
47     else
48     {
49
50         mbmsDataSet mbmsDS = new mbmsDataSet();
51
52         string updatequery = "INSERT INTO municipal_profile (id, town,
53             province, rurban_code, budget_aide, budget_officer, mayor) VALUES
54             (1, '"+municipalOf+' ', '"+province+' ', '"+rurbanCode+' ', '"+
55             budgetAide+' ', '"+budgetOfficer+' ', '"+mayor+' ');"
56         MySqlCommand command = new MySqlCommand(updatequery, connection);
57         command.Connection = connection;
58
59         command.ExecuteNonQuery();
60         Close();
61
62         MessageBox.Show("Municipal Profile Saved", "Municipal Profile",
63             MessageBoxButtons.OK, MessageBoxIcon.Information);
64     }
65 }
66 catch (Exception)
67 {
68     MessageBox.Show("Error");
69 }
70 }
71
72 private void button2_Click(object sender, EventArgs e)
73 {
74     Close();
75 }
```

```
76     }  
77 }
```

## A.23 userAccountSetUp.cs

```
1  using System;  
2  using System.Collections.Generic;  
3  using System.ComponentModel;  
4  using System.Data;  
5  using System.Drawing;  
6  using System.Linq;  
7  using System.Text;  
8  using System.Windows.Forms;  
9  using MySql.Data.MySqlClient;  
10  
11 namespace MunicipalBudgetManagementSystem  
12 {  
13     public partial class userAccountSetUp : Form  
14     {  
15         public userAccountSetUp()  
16         {  
17             InitializeComponent();  
18         }  
19  
20         private void button1_Click(object sender, EventArgs e)  
21         {  
22             string fname = firstNameTB.Text;  
23             string mname = middleNameTB.Text;  
24             string lname = lastNameTB.Text;  
25             string empID = empIDTB.Text;  
26  
27             string username = usernameTB.Text;  
28             string password = passwordTB.Text;  
29  
30  
31  
32             string inputDate = DateTime.Now.Year.ToString() + "-" + DateTime.Now.Month.  
                 ToString() + "-" + DateTime.Now.Day.ToString();  
33             string inputTime = DateTime.Now.Hour.ToString() + ":" + DateTime.Now.Minute.  
                 ToString() + ":" + DateTime.Now.Second.ToString();  
34  
35  
36  
37             MySqlConnection connection = new MySqlConnection(loginPageClass.MyConString);  
38  
39             try
```

```
40         {
41             connection.Open();
42             if (firstNameTB.Text == "" || middleNameTB.Text == "" || lastNameTB.Text
43                 == "" || usernameTB.Text == "" || passwordTB.Text == "")
44             {
45                 MessageBox.Show("Required field cannot be left blank", "Missing Fields
46                     ", MessageBoxButtons.OK, MessageBoxIcon.Information,
47                     MessageBoxDefaultButton.Button1);
48             }
49             else
50             {
51                 if (passwordTB.Text == rpPasswordTB.Text)
52                 {
53
54                     string insertquery = "INSERT INTO employees (emp_id, fname, mname,
55                         lname, username, password, date_reg, time_reg) VALUES (' +
56                         empID + " ', ' " + fname + " ', ' " + mname + " ', ' " + lname + " ',
57                         ' " + username + " ', ' " + password + " ', ' " + inputDate + " ', ' "
58                         + inputTime + " ' ) ";
59                     MySqlCommand command = new MySqlCommand(insertquery, connection);
60                     command.Connection = connection;
61
62                     command.ExecuteNonQuery();
63                     Dispose();
64                     MessageBox.Show("User Successfully Registered");
65                 }
66             }
67             else
68             {
69                 MessageBox.Show("Password Does not match", "Invalid Password",
70                     MessageBoxButtons.OK, MessageBoxIcon.Information,
71                     MessageBoxDefaultButton.Button1);
72             }
73         }
74     catch (Exception)
75     {
```

```
76         MessageBox.Show("Unable to connect to server", "Connection Failed",
77             MessageBoxButtons.OK, MessageBoxIcon.Information,
78             MessageBoxDefaultButton.Button1);
79     }
80 }
81
82
83 private void button2_Click(object sender, EventArgs e)
84 {
85     Environment.Exit(1);
86 }
87
88 private void empIDTB_KeyPress(object sender, KeyPressEventArgs e)
89 {
90     if (!char.IsControl(e.KeyChar)
91         && !char.IsDigit(e.KeyChar)
92         && e.KeyChar != '.')
93     {
94         e.Handled = true;
95     }
96
97     // only allow one decimal point
98     if (e.KeyChar == '.'
99         && (sender as TextBox).Text.IndexOf('.') > -1)
100    {
101        e.Handled = true;
102    }
103 }
104
105
106 }
107 }
```

## A.24 userAccountsPage.cs

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.Linq;
7 using System.Text;
8 using System.Windows.Forms;
9
```

```
10
11 namespace MunicipalBudgetManagementSystem
12 {
13     public partial class userAccountsPage : Form
14     {
15
16
17
18         public userAccountsPage ()
19         {
20             InitializeComponent ();
21         }
22
23         private void button1_Click(object sender, EventArgs e)
24         {
25
26
27             newUserAccount newAC = new newUserAccount ();
28
29             newAC.DS = mbmsDataSet;
30             newAC.Show ();
31
32         }
33
34         private void userAccountsPage_Load(object sender, EventArgs e)
35         {
36             // TODO: This line of code loads data into the 'mbmsDataSet.employees' table.
37             You can move, or remove it, as needed.
38             this.employeesTableAdapter.Fill(this.mbmsDataSet.employees);
39
40
41             label11.DataBindings.Add(new Binding("Text", employeesBindingSource, "emp_id")
42             );
43             label12.DataBindings.Add(new Binding("Text", employeesBindingSource, "fname"))
44             ;
45             label13.DataBindings.Add(new Binding("Text", employeesBindingSource, "mname"))
46             ;
47             label14.DataBindings.Add(new Binding("Text", employeesBindingSource, "lname"))
48             ;
49
50             label16.DataBindings.Add(new Binding("Text", employeesBindingSource, "date_reg
51             "));
52             label17.DataBindings.Add(new Binding("Text", employeesBindingSource, "time_reg
53             "));
```

```
49     }
50
51     private void button3_Click(object sender, EventArgs e)
52     {
53
54         DialogResult result = MessageBox.Show("Are you sure you want to delete this
55         User", "Delete User",
56         MessageBoxButtons.YesNo, MessageBoxIcon.Question, MessageBoxDefaultButton.
57         Button2);
58
59         if (result == DialogResult.Yes)
60         {
61             employeesBindingSource.RemoveCurrent();
62
63             employeesTableAdapter.Update(this.mbmsDataSet.employees);
64
65         }
66     }
67
68 }
69
70 private void button2_Click(object sender, EventArgs e)
71 {
72
73     editUserAccount editUA = new editUserAccount();
74
75     editUA.bs = employeesBindingSource;
76
77     editUA.Show();
78 }
79
80
81 private void listBox1_SelectedIndexChanged(object sender, EventArgs e)
82 {
83
84
85     if (listBox1.Text == "admin")
86     {
87         button3.Enabled = false;
88     }
89
90     else
91
92         button3.Enabled = true;
```

```
93  
94     }  
95 }  
96 }
```

# Appendix B

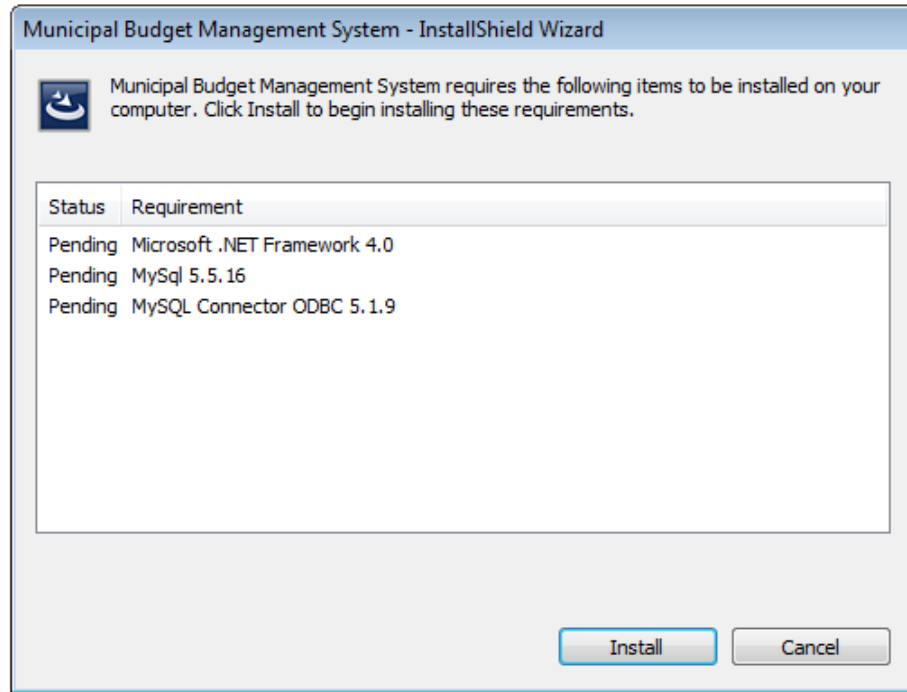
## User's Guide

### B.1 Installing Municipal Budget Management System

The Municipality Budget Management System has three pre-requisite programs.

- Microsoft .Net Framework 4.0
- MySQL Server 5.0
- MySQL Connector/ODBC 5.1

It is required you have these three pre-requisite programs installed first before you will be able to install Municipal Budget Management System.



### B.1.1 Installing Microsoft .Net Framework 4.0

1. Run setup.exe from the Municipal Budget Management System disk. The setup will detect if a Microsoft .Net Framework 4.0 is installed on the computer or an existing Microsoft .Net Framework meets the required version.
2. Click Install to begin the Setup Wizard of Microsoft .Net Framework 4.
3. Click Next.
4. Check the I have read and accept the license terms and click Install.
5. Once the installation of Microsoft .Net Framework 4.0 is finished, Click Finish.

### B.1.2 Installing MySQL Server 5.5

1. Run setup.exe from the Municipal Budget Management System disk. The setup will detect if a MySQL Server 5.5 is installed on the computer or an existing MySQL Server meets the required version.

2. Click Install to begin the Setup Wizard of MySQL Server 5.5.
3. Click Next.
4. Check the I accept the terms in the License Agreement and click Next.
5. Select Typical as your setup type.
6. Click Install.
7. Make sure the Launch the MySQL Instance Configuration Wizard is check, click Finish to begin the Configuration Wizard of MySQL.
8. Click Next.
9. Select Standard Configuration as your setup type, click Next.
10. Make sure Install as Service and Launch the MySQL Server automatically is checked. Leave MySQL as your Service Name and click Next.
11. Type the password for the MySQL Server and click Next.
12. Once the processing configuration of MySQL Server 5.5 is finished click Finish.

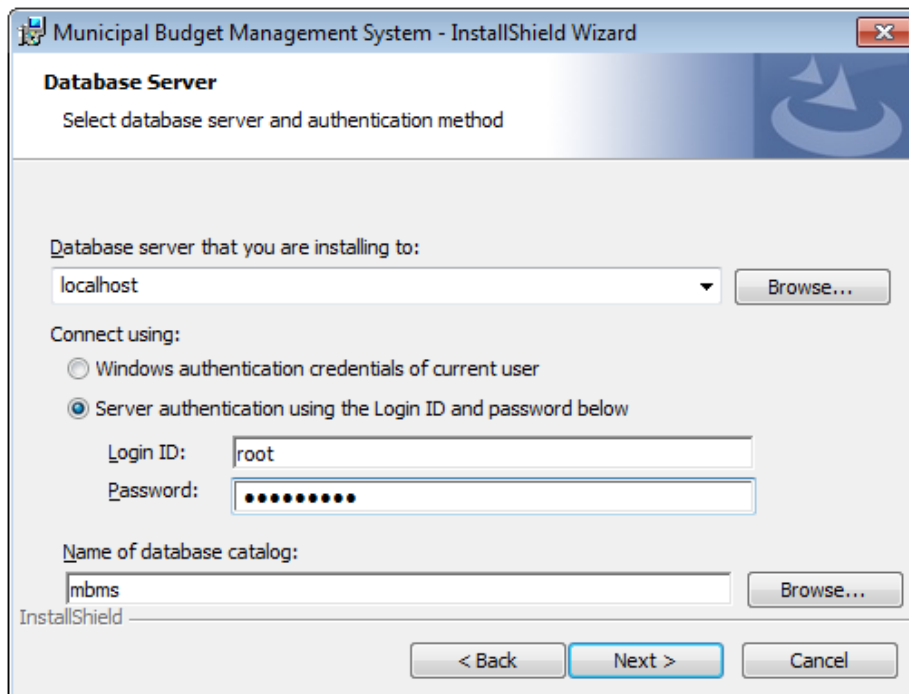
### **B.1.3 Installing MySQL Connector/ODBC 5.1**

1. Run setup.exe from the Municipality Budget Management System disk. The setup will detect if a MySQL Connector/ODBC 5.1 is installed on the computer or an existing Microsoft .Net Framework meets the required version.
2. Click Install to begin the Setup Wizard of MySQL Connector/ODBC 5.1.
3. Click Next.
4. Check the I accept the terms in the License Agreement and click Next.
5. Select Typical as your setup type and click Next.
6. Click Install.
7. Once the installation of MySQL Connector/ODBC 5.1 is finished, click Finish.

### B.1.4 Installing Municipality Budget Management System

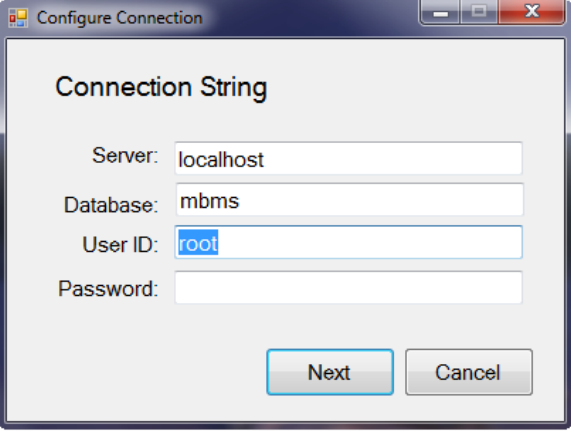
Once the three pre-requisite programs for Municipality Budget Management System are installed, you will be able to install Municipal Budget Management System.

1. Run setup.exe from the Municipal Budget Management System disk.
2. Click Next.
3. Click Change to install to a different folder, then click Next to install to the chosen folder.
4. Leave localhost as your database server that you are installing to. By default the Login ID is root, type the password that you have chosen for the MySQL Server 5.0. Leave mbms as your database catalog and click Next.



5. Click Install.
6. Once the installation of Municipality Budget Management System is finished, make sure Launch Municipal Budget Management System is check and click Finish.

- At the Configure Connection Form, leave localhost as your server, and mbms as your database. Leave root as your User ID, type the password that you have chosen for the MySQL Server 5.0 and click Next.



Configure Connection

Connection String

Server: localhost

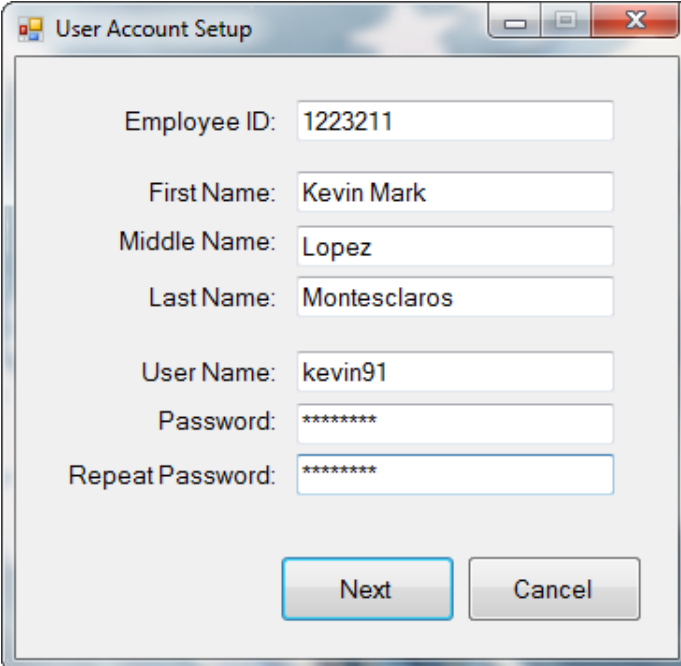
Database: mbms

User ID: root

Password:

Next Cancel

- At the User Account Setup Form fill your Employee ID, First Name, Middle Name, Last Name, User Name, Password and click Next.



User Account Setup

Employee ID: 1223211

First Name: Kevin Mark

Middle Name: Lopez

Last Name: Montesclaros

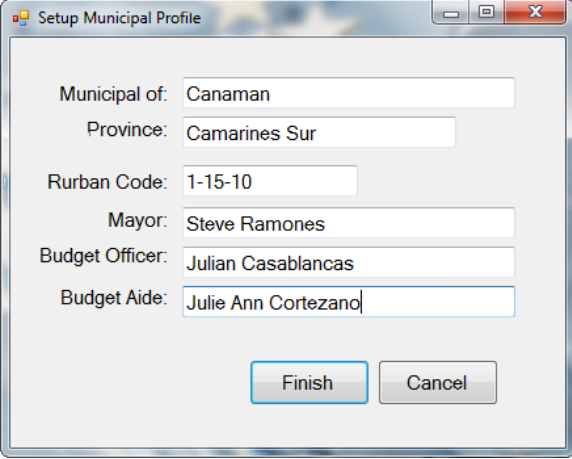
User Name: kevin91

Password: \*\*\*\*\*

Repeat Password: \*\*\*\*\*

Next Cancel

9. At the Setup Municipal Profile Form fill the Municipality of, Province, Rurban Code, Mayor, Budget Officer, Budget Aide and click Finish.



Setup Municipal Profile

Municipal of: Canaman

Province: Camarines Sur

Rurban Code: 1-15-10

Mayor: Steve Ramones

Budget Officer: Julian Casablanca

Budget Aide: Julie Ann Cortezano

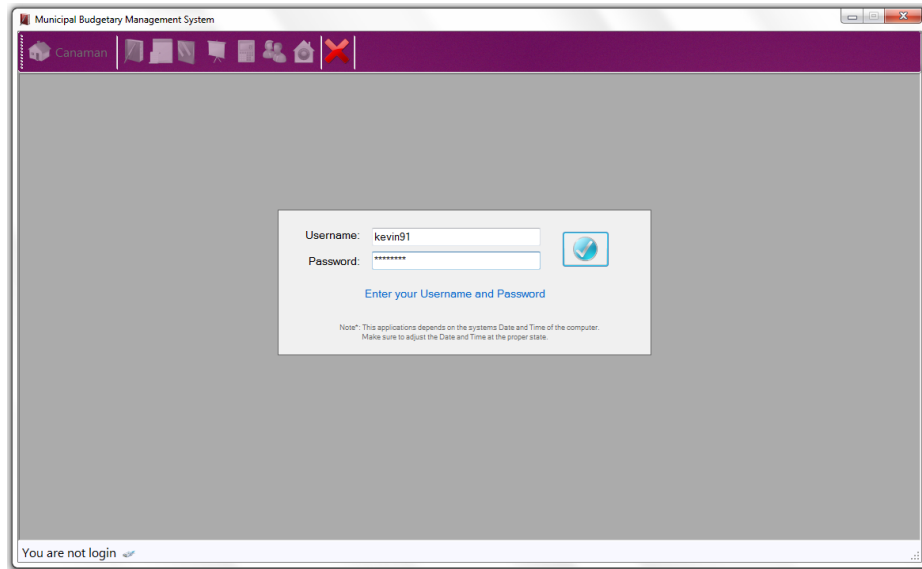
Finish Cancel

You are now ready to use Municipailty Budget Management System.

## B.2 Using Municipality Budget Management System

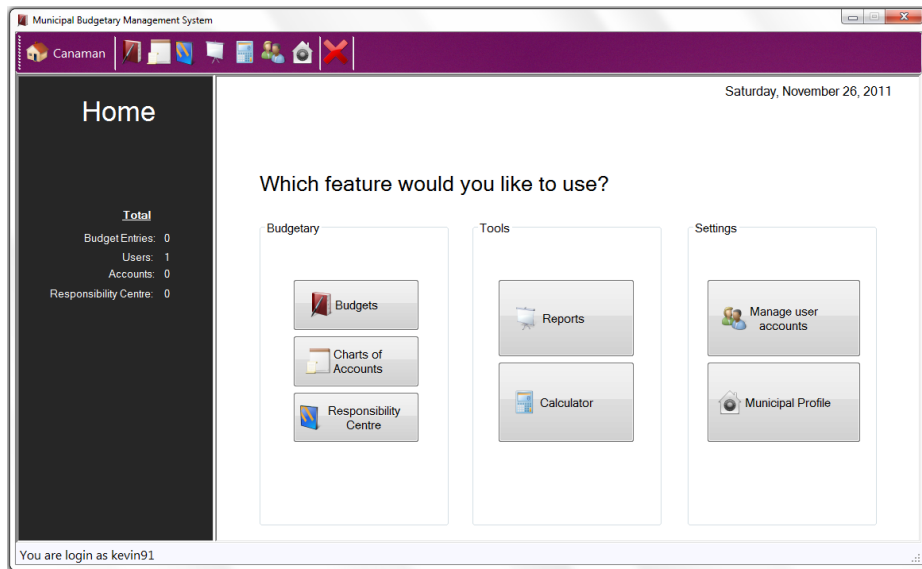
### B.2.1 Login Procedure

1. Run Municipality Budget Management System
2. At the Login Page, type your username and password and press Enter or click Login button.



## B.2.2 Setting up your Charts of Accounts

1. Select Charts of Accounts at the Home Page.



2. At the Charts of Accounts Page, click Import to browse for your excel file with your Charts of Accounts details.

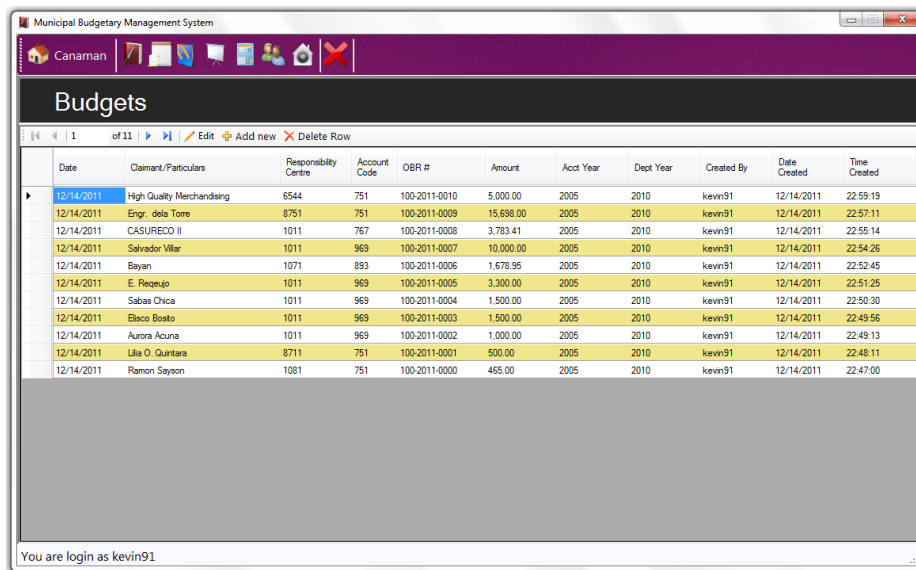
3. Click Open to import your Charts of Accounts.
4. Once the importing is finished, your Charts of Accounts year will appear at the list box.

### B.2.3 Setting up your Responsibility Centres

1. Select Responsibility Centre at the Home Page.
2. At the Responsibility Centres Page, click Import to browse for your excel file with your Responsibility Centre details.
3. Click Open to import your Responsibility Centre.
4. Once the importing is finished, your Responsibility Centre year will appear at the list box.

### B.2.4 Adding a Budget Entry

1. Select Budgets at the Home Page.
2. At the Budgets Page, click the Add new button to bring the New Budget Entry Form at front.

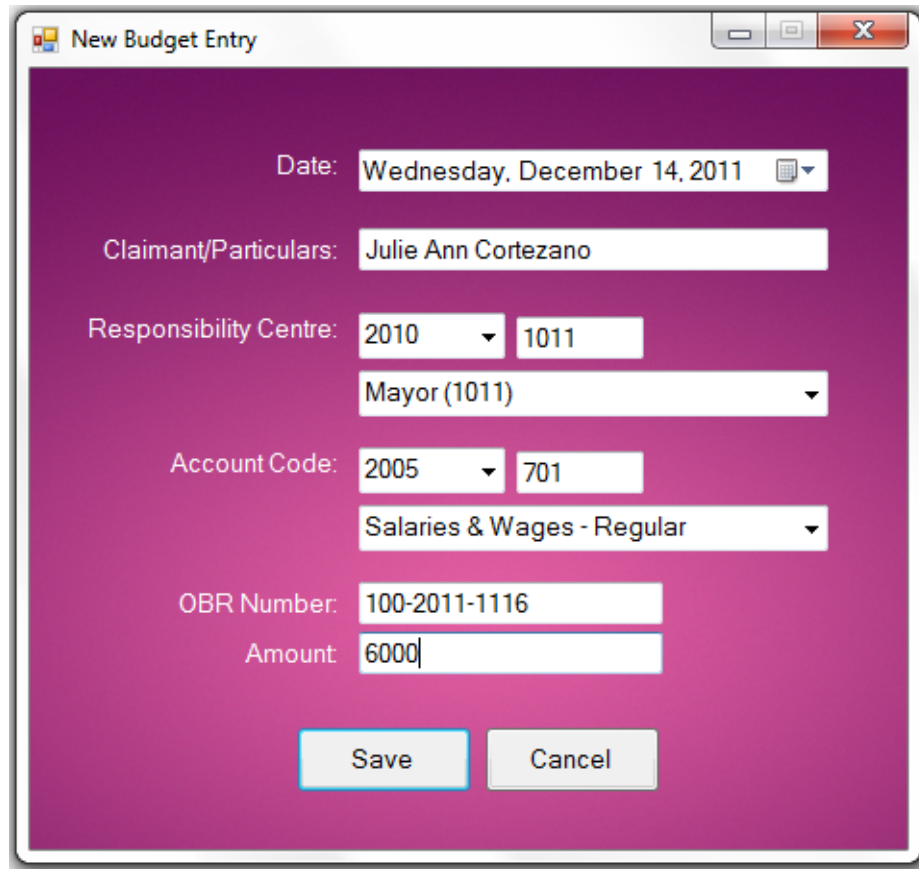


The screenshot shows a web application window titled "Municipal Budgetary Management System" with a user interface for "Budgets". The interface includes a navigation bar with "Canaman" and several icons. Below the title, there is a toolbar with "of 11" entries, "Edit", "Add new", and "Delete Row" options. The main area contains a table with the following columns: Date, Claimant/Particulars, Responsibility Centre, Account Code, OBR #, Amount, Acct Year, Dept Year, Created By, Date Created, and Time Created. The table lists 13 budget entries, each with a date of 12/14/2011 and a created time between 22:48:11 and 22:59:19. The user is logged in as kevin91.

Date	Claimant/Particulars	Responsibility Centre	Account Code	OBR #	Amount	Acct Year	Dept Year	Created By	Date Created	Time Created
12/14/2011	High Quality Merchandising	6544	751	100-2011-0010	5,000.00	2005	2010	kevin91	12/14/2011	22:59:19
12/14/2011	Engr. dela Torre	8751	751	100-2011-0009	15,698.00	2005	2010	kevin91	12/14/2011	22:57:11
12/14/2011	CASURECO II	1011	767	100-2011-0008	3,783.41	2005	2010	kevin91	12/14/2011	22:55:14
12/14/2011	Salvador Villar	1011	969	100-2011-0007	10,000.00	2005	2010	kevin91	12/14/2011	22:54:26
12/14/2011	Bayan	1071	893	100-2011-0006	1,678.95	2005	2010	kevin91	12/14/2011	22:52:45
12/14/2011	E. Rezejo	1011	969	100-2011-0005	3,300.00	2005	2010	kevin91	12/14/2011	22:51:25
12/14/2011	Sabas Chica	1011	969	100-2011-0004	1,500.00	2005	2010	kevin91	12/14/2011	22:50:30
12/14/2011	Elisco Bosto	1011	969	100-2011-0003	1,500.00	2005	2010	kevin91	12/14/2011	22:49:56
12/14/2011	Aurora Acuna	1011	969	100-2011-0002	1,000.00	2005	2010	kevin91	12/14/2011	22:49:13
12/14/2011	Lilia O. Quintara	8711	751	100-2011-0001	500.00	2005	2010	kevin91	12/14/2011	22:48:11
12/14/2011	Ramon Sayson	1081	751	100-2011-0000	465.00	2005	2010	kevin91	12/14/2011	22:47:00

You are login as kevin91

3. At the New Budget Entry Form, select the date of your budget entry from the date picker and fill the Claimant/Particulars, Responsibility Centre, Account Code, OBR Number and Amount of your budget entry.



**New Budget Entry**

Date: Wednesday, December 14, 2011

Claimant/Particulars: Julie Ann Cortezano

Responsibility Centre: 2010 1011  
Mayor (1011)

Account Code: 2005 701  
Salaries & Wages - Regular

OBR Number: 100-2011-1116

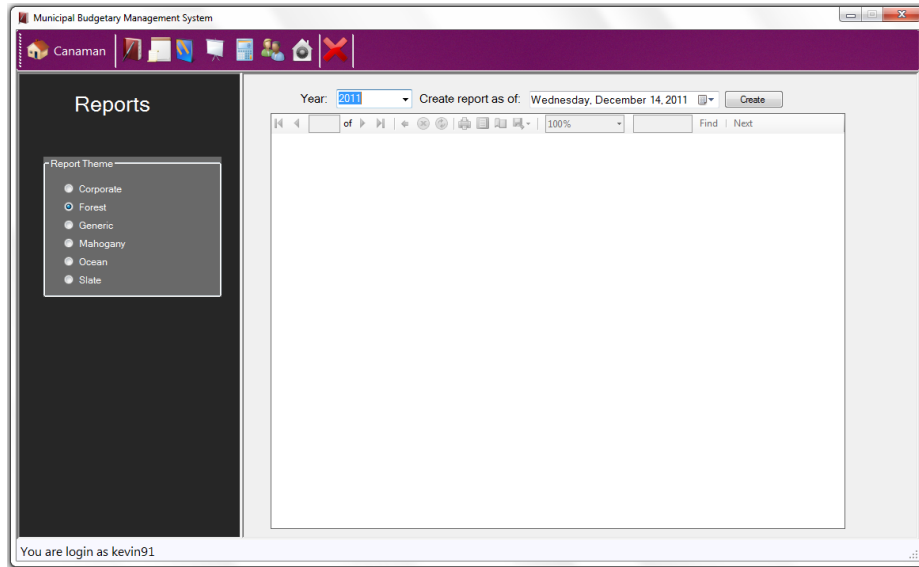
Amount: 6000

Save Cancel

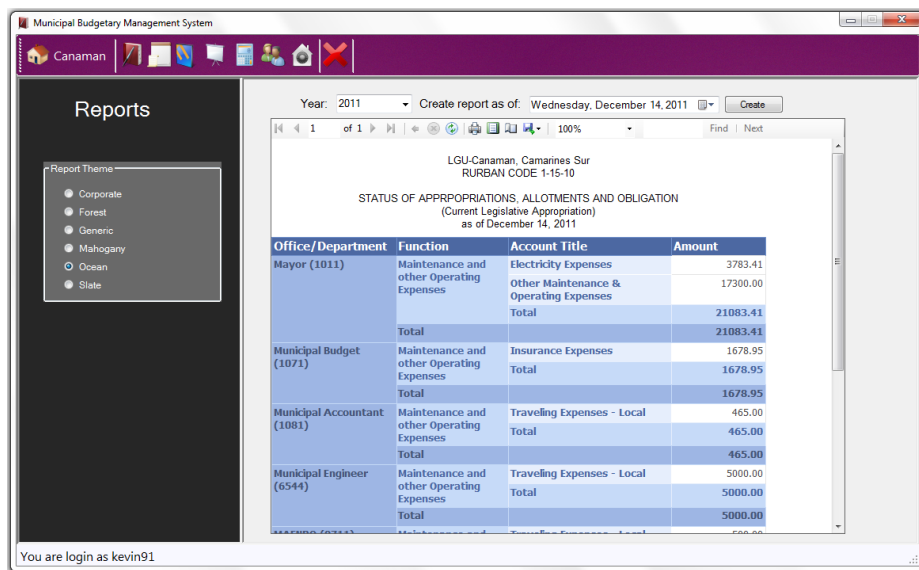
4. Click Save.
5. Once the adding is complete, the new budget entry will appear at the Data Grid View at the Budgets Page.

### B.2.5 Creating a Budget Report

1. Select Reports at the Home Page.
2. At the Budget Reports Page, select the year from the combo box Year that you want to create a budget report of.

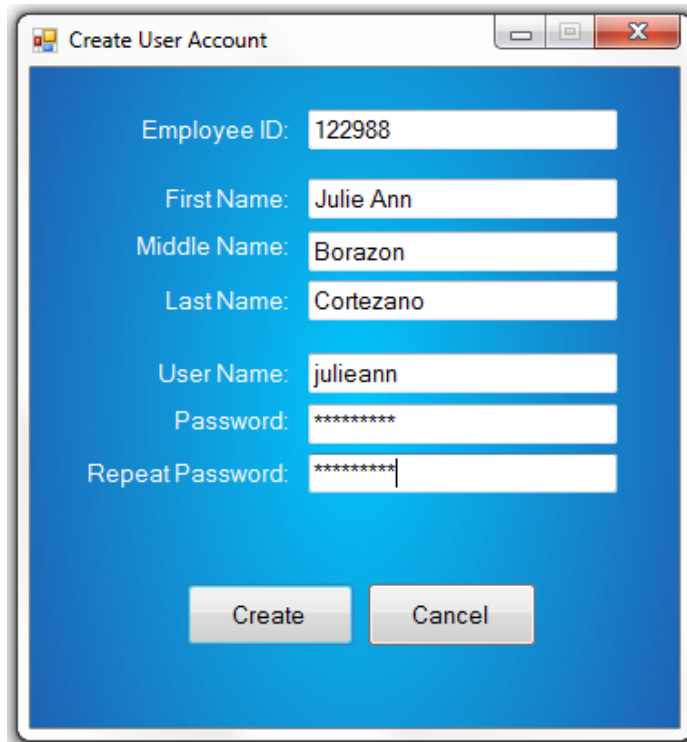


3. Select the date from the date picker that you want to create a budget report as of.
4. At the left side of the Reports Page, select a theme.
5. Click the Create button to create your budget report.
6. You may choose to export your created budget report to an Excel, PDF, or Word File by click the Export button, or simply print the budget report by clicking the Print button.



## B.2.6 Adding another User Account

1. Select Manage user accounts at the Home Page.
2. Click on Create New to bring the Create User Account Form at front.
3. At the Create User Account Form, fill the Employee ID, First Name, Middle Name, Last Name, User Name and Password of the new User Account.



The screenshot shows a window titled "Create User Account" with a blue background. It contains the following fields and values:

Field	Value
Employee ID:	122988
First Name:	Julie Ann
Middle Name:	Borazon
Last Name:	Cortezano
User Name:	julieann
Password:	*****
Repeat Password:	*****

At the bottom of the form, there are two buttons: "Create" and "Cancel".

4. Click Create button.
5. Once the registration is complete, the new user accounts username will be added at the list box.

# REFERENCES

- [1] Development Resources. [www.codeproject.com/](http://www.codeproject.com/)
- [2] W3Schools Online Web Tutorials <http://www.w3schools.com/>
- [3] Bill Sempf, Chuck Sphar, Stephen Randy Davis, C Sharp 2010 All In One For Dummies.

# VITA

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