PART – B

1) Consider the Database db_EMS (Employee Management System)
consisting of the following tables :
tbl_Designations (IdDesignation: int, Designation: string)
tbl_EmployeeDetails(IdEmployee: int, EmployeeName: string, ContactNumber: string, IdDesignation:
int, IdReportingTo: int)

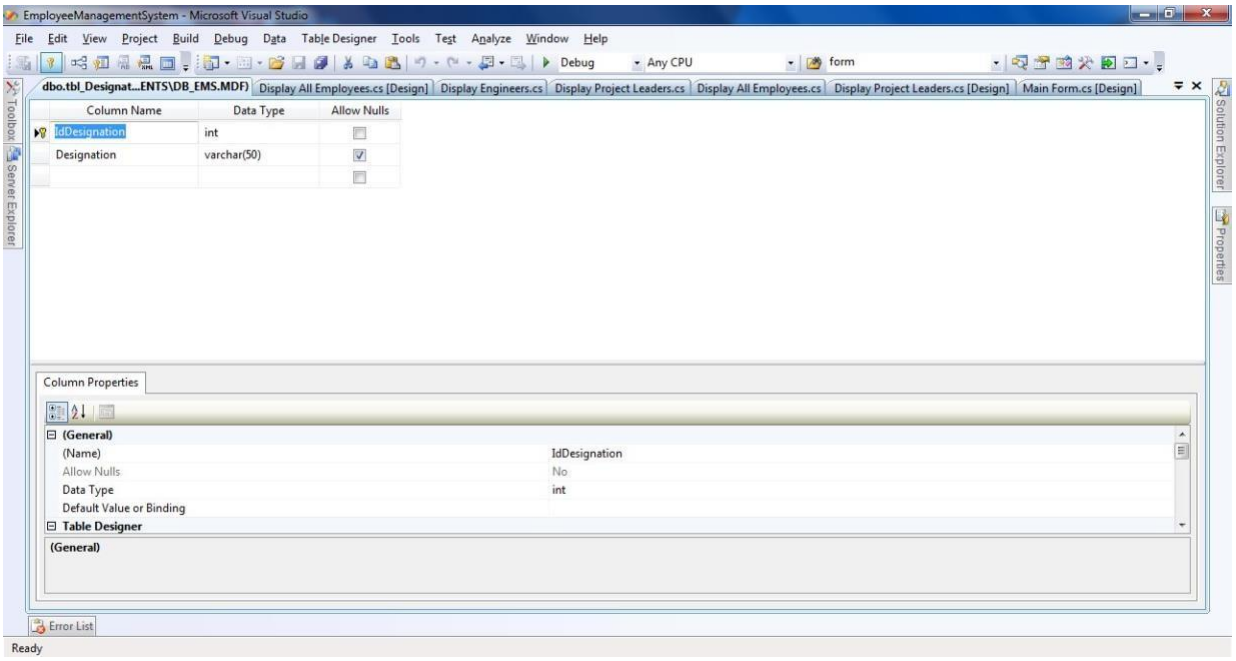
Develop a suitable window application using C#.NET having following options.

1. Enter new Employee details with designation & Reporting Manager.
2. Display all the Project Leaders (In a Grid) reporting to selected Project Managers (In a Combo box).
3. Display all the Engineers (In a Grid) reporting to selected Project Leader (In a Combo box).
4. Display all the Employees (In a Grid) with their reporting Manager (No Value for PM).

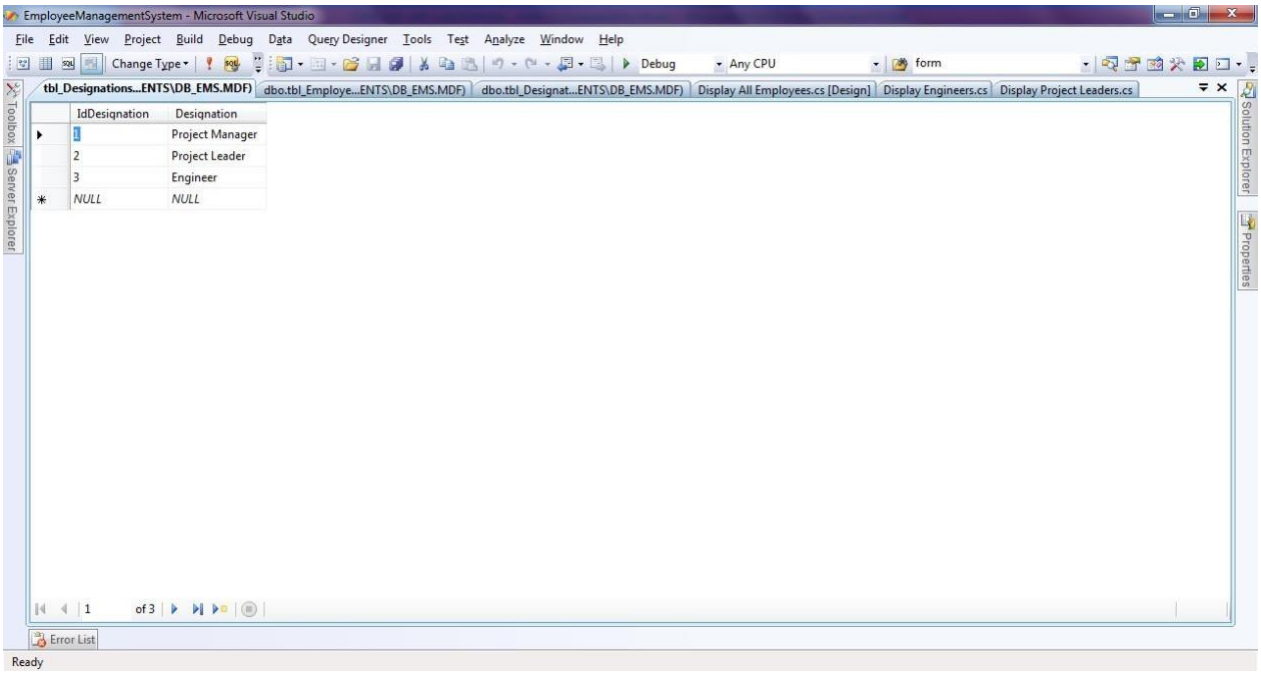
NOTE: tbl_Designation is a static table containing the following Rows in it.

1	Project Manager
2	Project Leader
3	Engineer

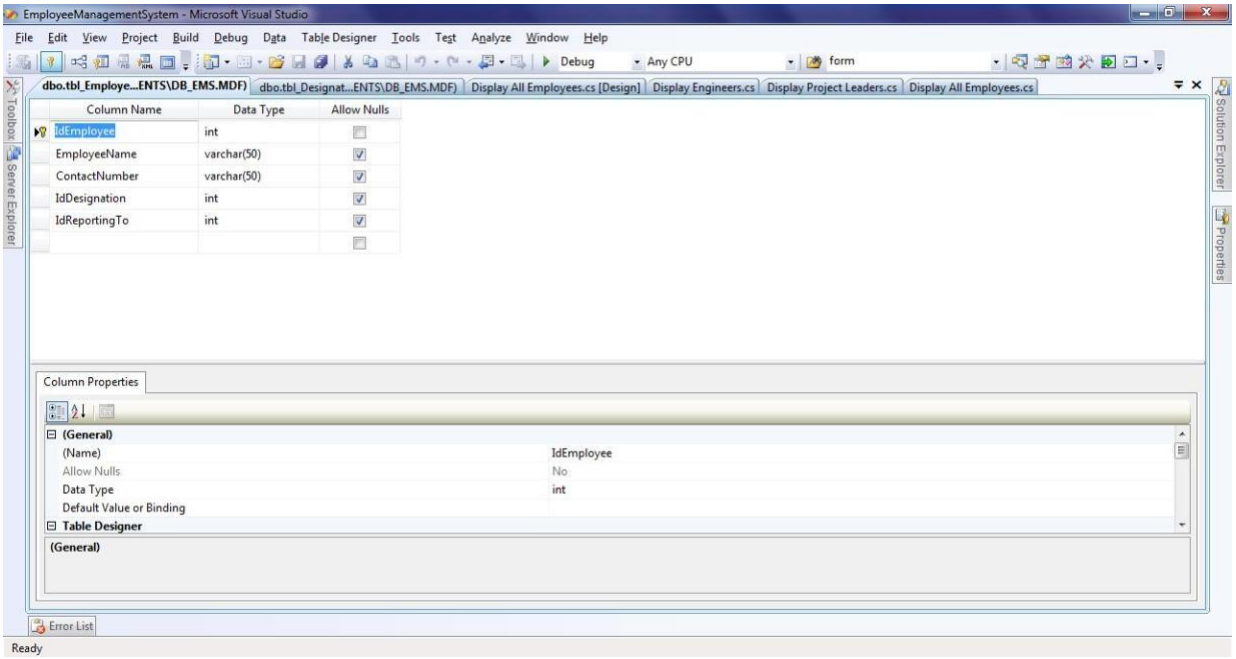
1) tbl_Designations – Table Design:



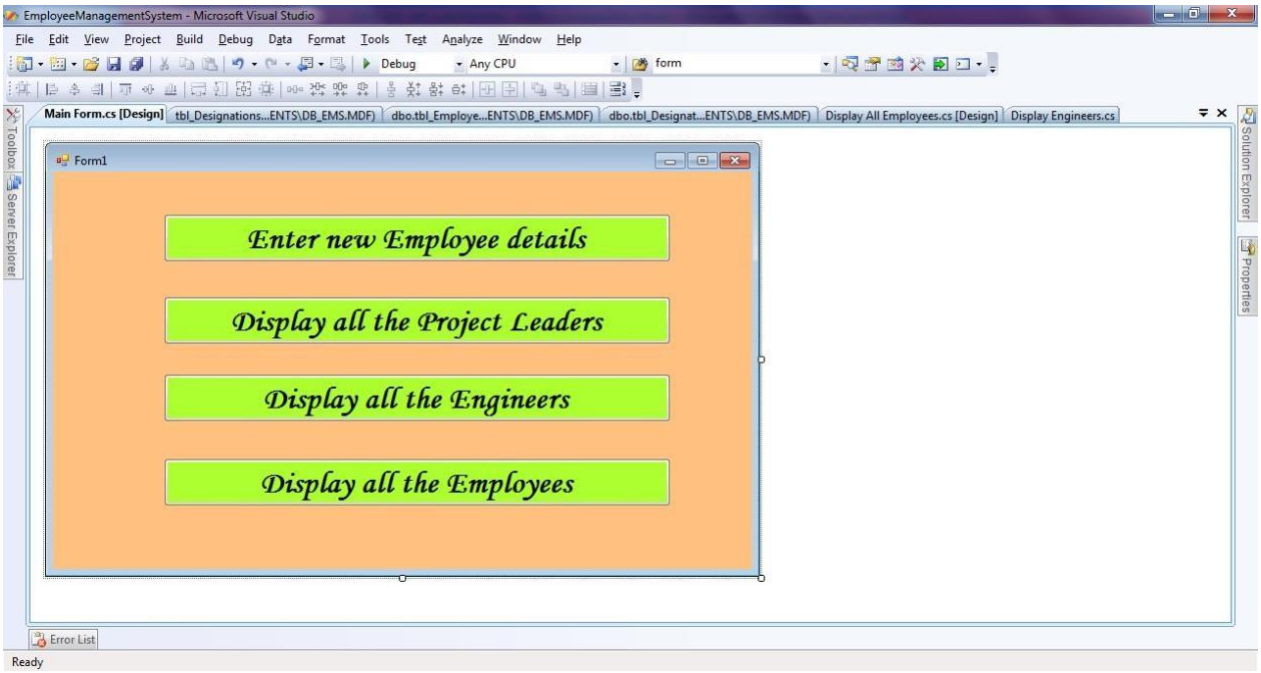
tbl_Designations – Static Table:



2) tbl_EmployeeDetails – Table Design:



1) Main Form – Design:

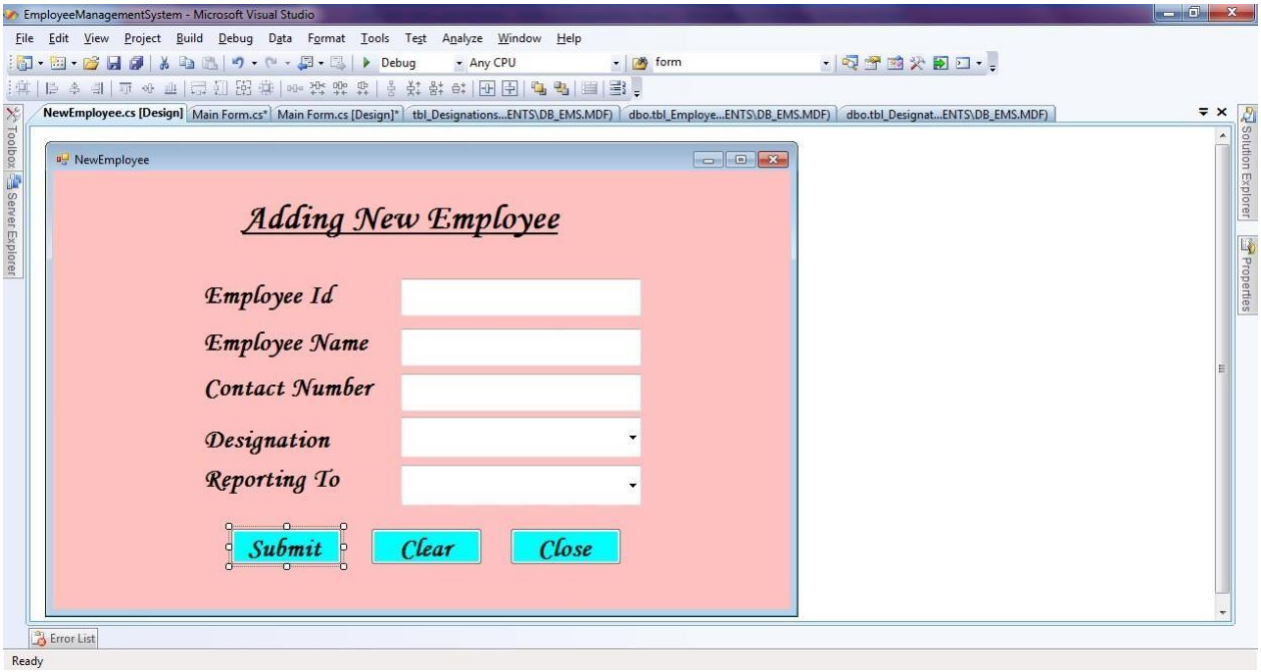


Main Form – Code:

```
using System;
using System.Text;
using System.Windows.Forms;

namespace EmployeeManagementSystem
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            Display_Project_Leaders obj = new Display_Project_Leaders();
            obj.Show();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            NewEmployee obj = new NewEmployee();
            obj.Show();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Display_Engineers obj=new Display_Engineers();
            obj.Show();
```

```
        }

        private void button4_Click(object sender, EventArgs e)
        {
            Display_All_Employees obj = new Display_All_Employees();
            obj.Show();
        }


    }
}
```

2) New Employee Form – Design:



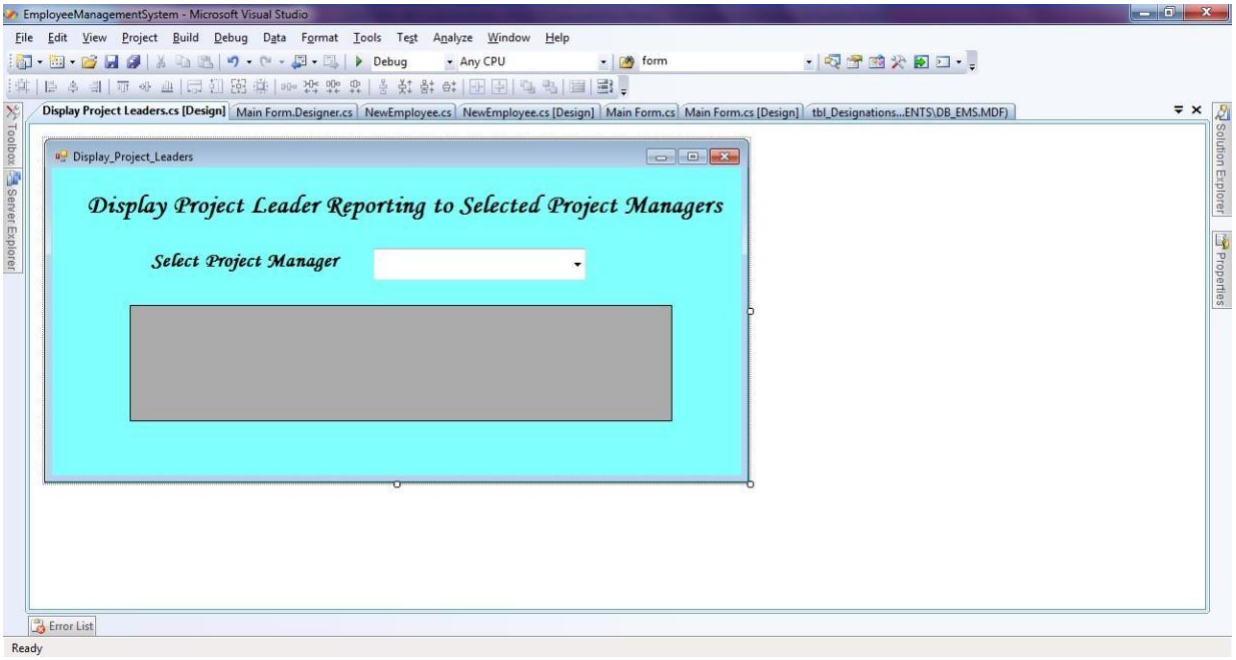
New Employee Form – Code:

```
using System;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace EmployeeManagementSystem
{
    public partial class NewEmployee : Form
    {

        public NewEmployee()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
```

```
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_EMS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            int iddesignation = comboBox1.SelectedIndex+1;
            int idreport=0;
            if (comboBox2.SelectedValue != null)
                idreport =int.Parse( comboBox2.SelectedValue.ToString());

            string query = "insert into tbl_EmployeeDetails
(IdEmployee,EmployeeName,ContactNumber,IdDesignation,IdReportingTo) values(" +
textBox1.Text + ",'" + textBox2.Text + "','" + textBox3.Text + "'," + iddesignation
+ "," + idreport + ")";
            SqlCommand cmd = new SqlCommand(query, con);
            int i = cmd.ExecuteNonQuery();
            if (i > 0)
            {
                MessageBox.Show("New Emplyee'" + textBox2.Text + "' Added
Sucessfully");
            }
            else
            {

                MessageBox.Show("INSERTION FAILED");
            }
            con.Close();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            textBox1.Text = "";
            textBox2.Text = "";
            textBox3.Text = "";
            comboBox1.SelectedIndex = -1;
            comboBox2.SelectedIndex = -1;
        }

        private void NewEmployee_Load(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_EMS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string sqlstr = "select IdDesignation from tbl_Designations   ";
            SqlDataAdapter sda = new SqlDataAdapter(sqlstr, con);
            DataSet ds = new DataSet();
            sda.Fill(ds);
            comboBox1.DataSource = ds.Tables[0];
            comboBox1.ValueMember = "IdDesignation";
            comboBox1.DisplayMember = "IdDesignation";

            string sqlstr1 = "select IdEmployee from tbl_EmployeeDetails where
IdDesignation=" + comboBox1.SelectedIndex + "    ";
            SqlDataAdapter sda1 = new SqlDataAdapter(sqlstr1, con);
            DataSet ds1 = new DataSet();
            sda1.Fill(ds1);
            comboBox2.DataSource = ds1.Tables[0];
```

```
            comboBox2.ValueMember = "IdEmployee";
            comboBox2.DisplayMember = "IdEmployee";

            con.Close();
        }

        private void comboBox1_SelectionChangeCommitted(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\adminz1\\Documents\\db_EMS.mdf;Int
egrated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string sqlstr1 = "select IdEmployee from tbl_EmployeeDetails where
IdDesignation=" + comboBox1.SelectedIndex + "    ";
            SqlDataAdapter sda1 = new SqlDataAdapter(sqlstr1, con);
            DataSet ds1 = new DataSet();
            sda1.Fill(ds1);
            comboBox2.DataSource = ds1.Tables[0];
            comboBox2.ValueMember = "IdEmployee";
            comboBox2.DisplayMember = "IdEmployee";
            con.Close();

        }

        private void button3_Click(object sender, EventArgs e)
        {
            this.Close();
        }
    }
}
```

3) Display all the Project Leaders Form – Design:

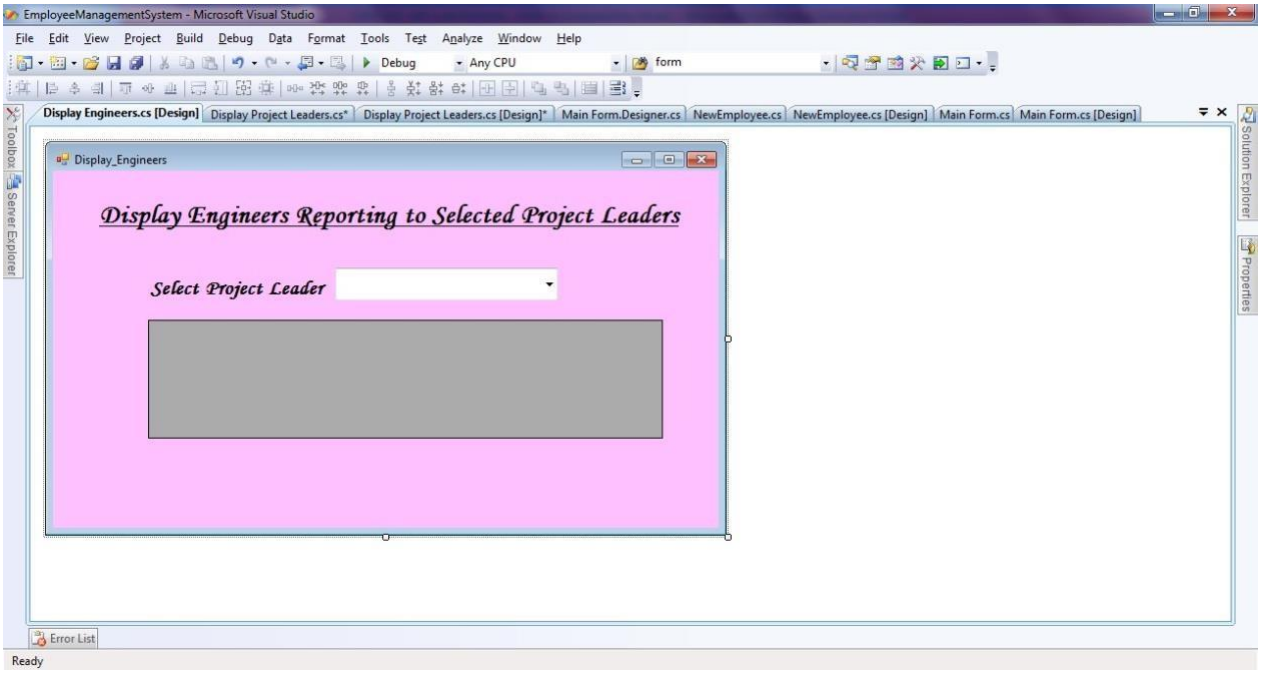


Display all the Project Leaders Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace EmployeeManagementSystem
{
    public partial class Display_Project_Leaders : Form
    {
        public Display_Project_Leaders()
        {
            InitializeComponent();
        }

        private void Display_Project_Leaders_Load(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_EMS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string sqlstr = "select IdEmployee from tbl_EmployeeDetails where
IdDesignation=" + 1 + " ";
            SqlDataAdapter sda = new SqlDataAdapter(sqlstr, con);
            DataSet ds = new DataSet();
            sda.Fill(ds);
            comboBox1.DataSource = ds.Tables[0];
            comboBox1.ValueMember = "IdEmployee";
            comboBox1.DisplayMember = "IdEmployee";

            string sqlstr1 = "select * from tbl_EmployeeDetails where
tbl_EmployeeDetails.IdReportingTo=" + comboBox1.SelectedValue + "";
            SqlDataAdapter sda1 = new SqlDataAdapter(sqlstr1, con);
            DataSet ds1 = new DataSet();
            sda1.Fill(ds1);
            dataGridView1.DataSource = ds1.Tables[0];
        }



        private void comboBox1_SelectionChangeCommitted(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\adminz1\\Documents\\db_EMS.mdf;Int
egrated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string sqlstr1 = "select * from tbl_EmployeeDetails where
tbl_EmployeeDetails.IdReportingTo=" + comboBox1.SelectedValue + "";
            SqlDataAdapter sda1 = new SqlDataAdapter(sqlstr1, con);
```

```
            DataSet ds1 = new DataSet();
            sda1.Fill(ds1);
            dataGridView1.DataSource = ds1.Tables[0];
            con.Close();

        }

    }
}
```

4) Display all the Project Engineers Form – Design:

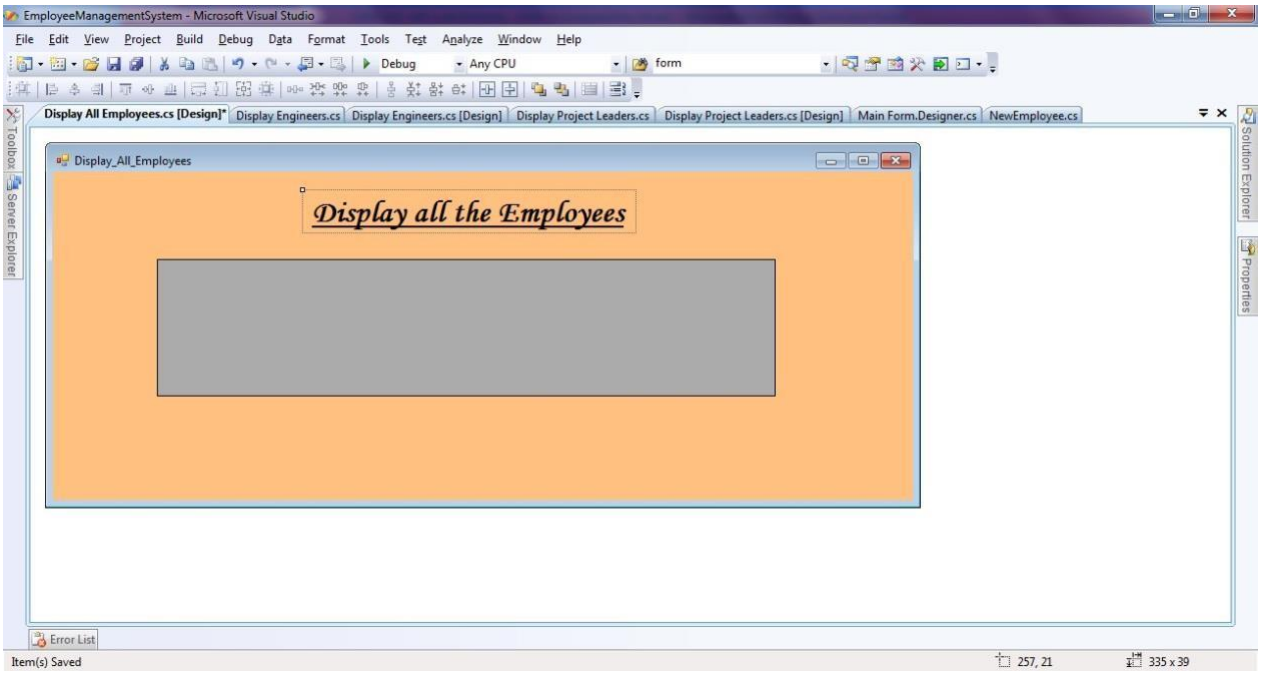


Display all the Project Engineers Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace EmployeeManagementSystem
{
    public partial class Display_Engineers : Form
    {
        public Display_Engineers()
        {
            InitializeComponent();
        }
```

```
        private void Display_Engineers_Load(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_EMS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string sqlstr = "select IdEmployee from tbl_EmployeeDetails where
IdDesignation=" + 2 + " ";
            SqlDataAdapter sda = new SqlDataAdapter(sqlstr, con);
            DataSet ds = new DataSet();
            sda.Fill(ds);
            comboBox1.DataSource = ds.Tables[0];
            comboBox1.ValueMember = "IdEmployee";
            comboBox1.DisplayMember = "IdEmployee";


            string sqlstr1 = "select * from tbl_EmployeeDetails where
tbl_EmployeeDetails.IdReportingTo=" + comboBox1.SelectedValue + "";
            SqlDataAdapter sda1 = new SqlDataAdapter(sqlstr1, con);
            DataSet ds1 = new DataSet();
            sda1.Fill(ds1);
            dataGridView1.DataSource = ds1.Tables[0];

        }

        private void comboBox1_SelectionChangeCommitted(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\adminz1\\Documents\\db_EMS.mdf;Int
egrated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string sqlstr1 = "select * from tbl_EmployeeDetails where
tbl_EmployeeDetails.IdReportingTo=" + comboBox1.SelectedValue + "";
            SqlDataAdapter sda1 = new SqlDataAdapter(sqlstr1, con);
            DataSet ds1 = new DataSet();
            sda1.Fill(ds1);
            dataGridView1.DataSource = ds1.Tables[0];

        }
    }
}
```

5) Display all the Employees Form – Design:



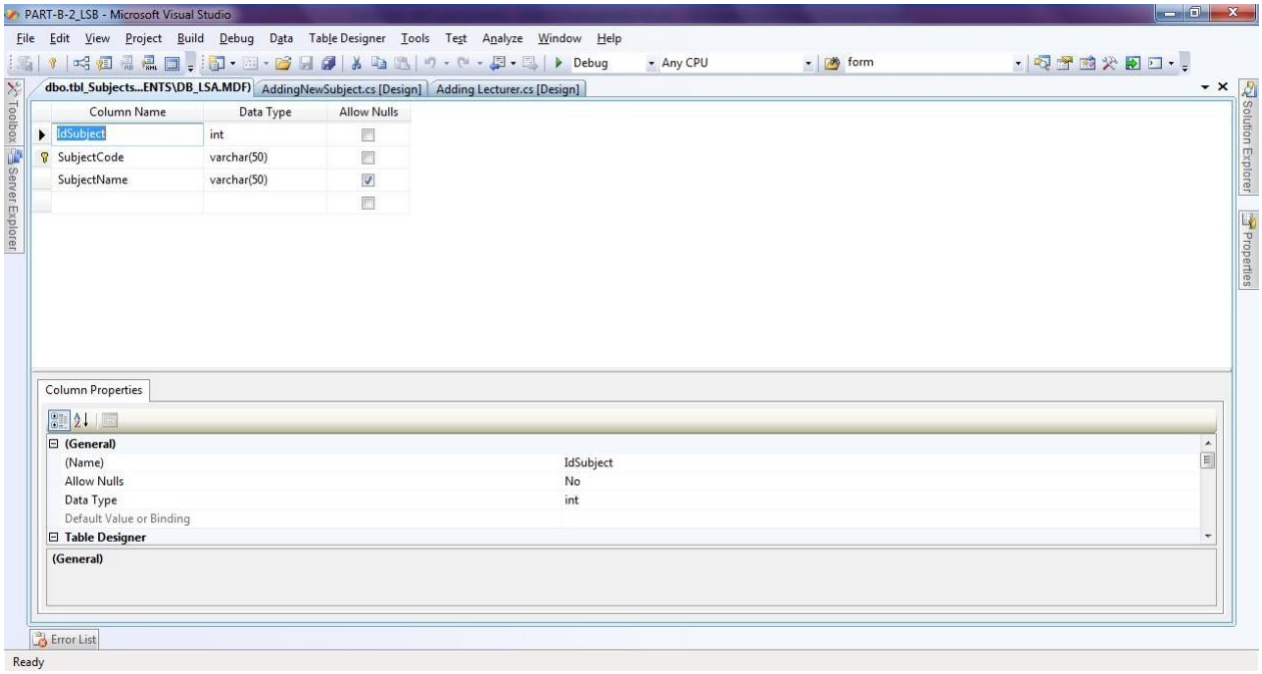
Display all the Employees Form – Code:

```
using System;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace EmployeeManagementSystem
{
    public partial class Display_All_Employees : Form
    {
        public Display_All_Employees()
        {
            InitializeComponent();
        }

        private void Display_All_Employees_Load(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_EMS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string sqlstr1 = "select * from tbl_EmployeeDetails";
            SqlDataAdapter sda1 = new SqlDataAdapter(sqlstr1, con);
            DataSet ds1 = new DataSet();
            sda1.Fill(ds1);
            dataGridView1.DataSource = ds1.Tables[0];

        }
    }
}
```

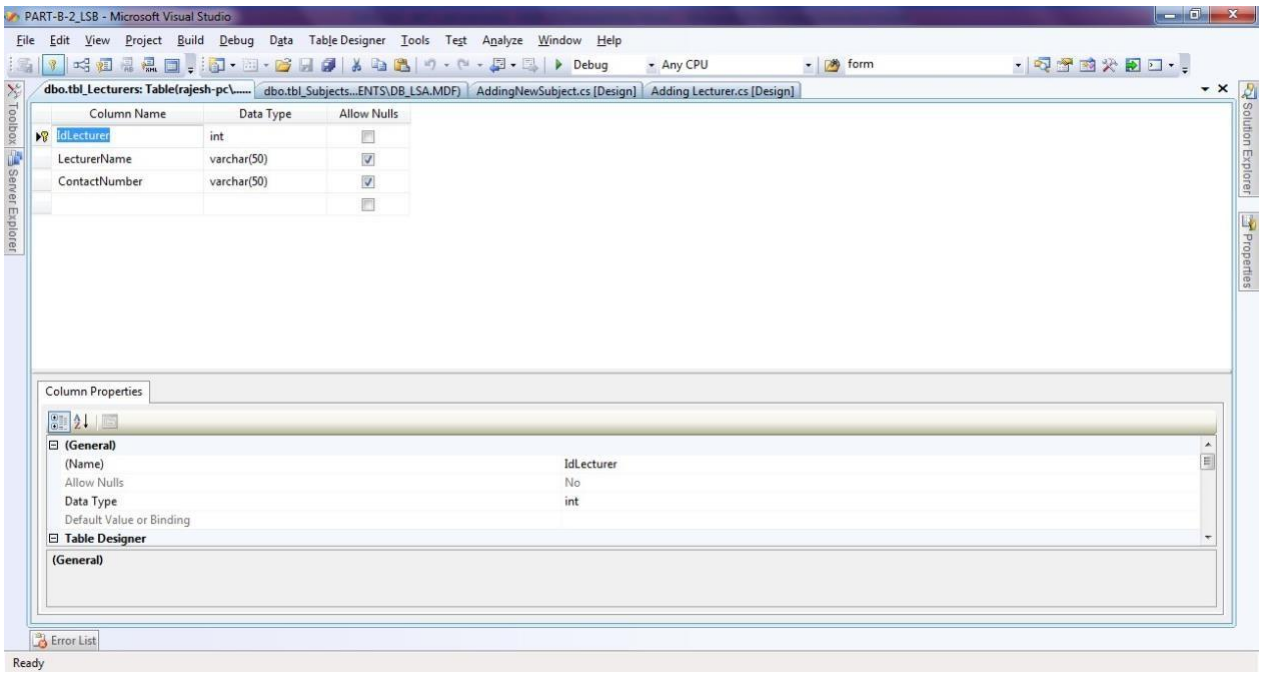
2) Consider the Database db_LSA (Lecturer Subject Allocation) consisting of the following tables:
tbl_Subjects(IdSubject: int, SubjectCode: string, SubjectName: string)
tbl_Lecturers(IdLecturer: int, LecturerName: string, ContactNumber: string)
tbl_LecturerSubjects(IdSubject: int, SubjectCode: string, IdLecturer: int)

Develop a suitable window application using C#.NET having following options.
1. Enter new Subject Details.
2. Enter New Lecturer Details.
3. Subject Allocation with Lecturer Name in a Combo box and subjects to be allocated in Grid with checkboxColumn.
4. Display all the subjects allocated (In a Grid) to the selected Lecturer (In a Combo Box).

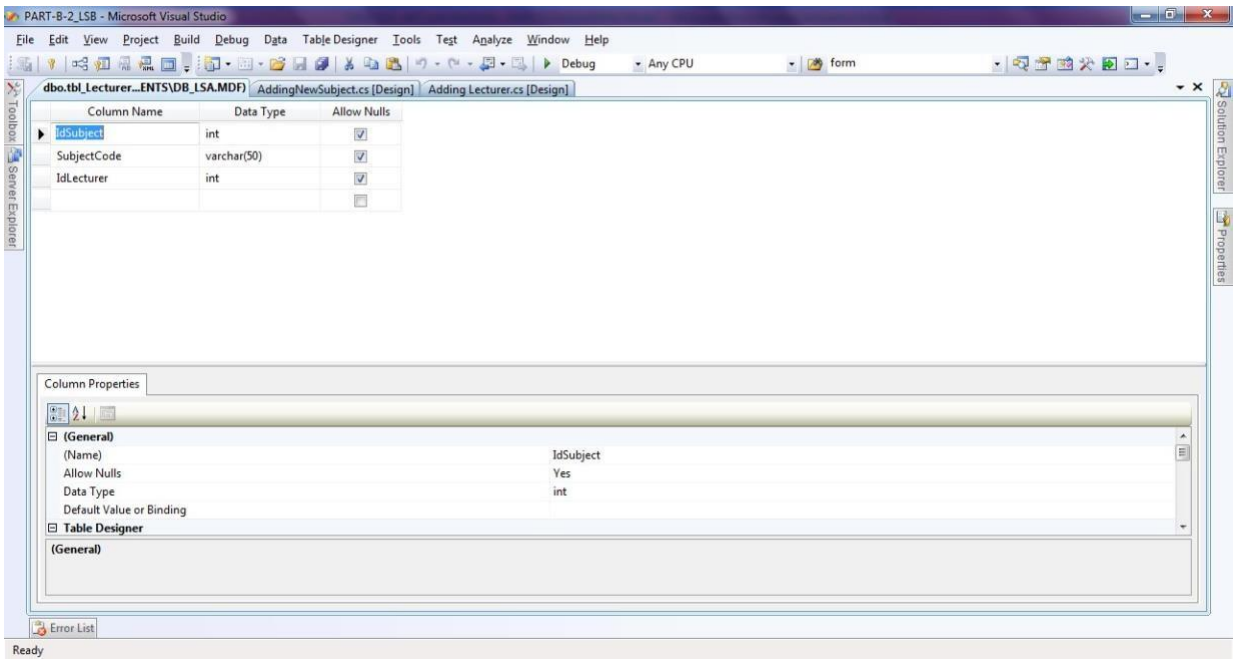
1) tbl_Subjects – Table Design

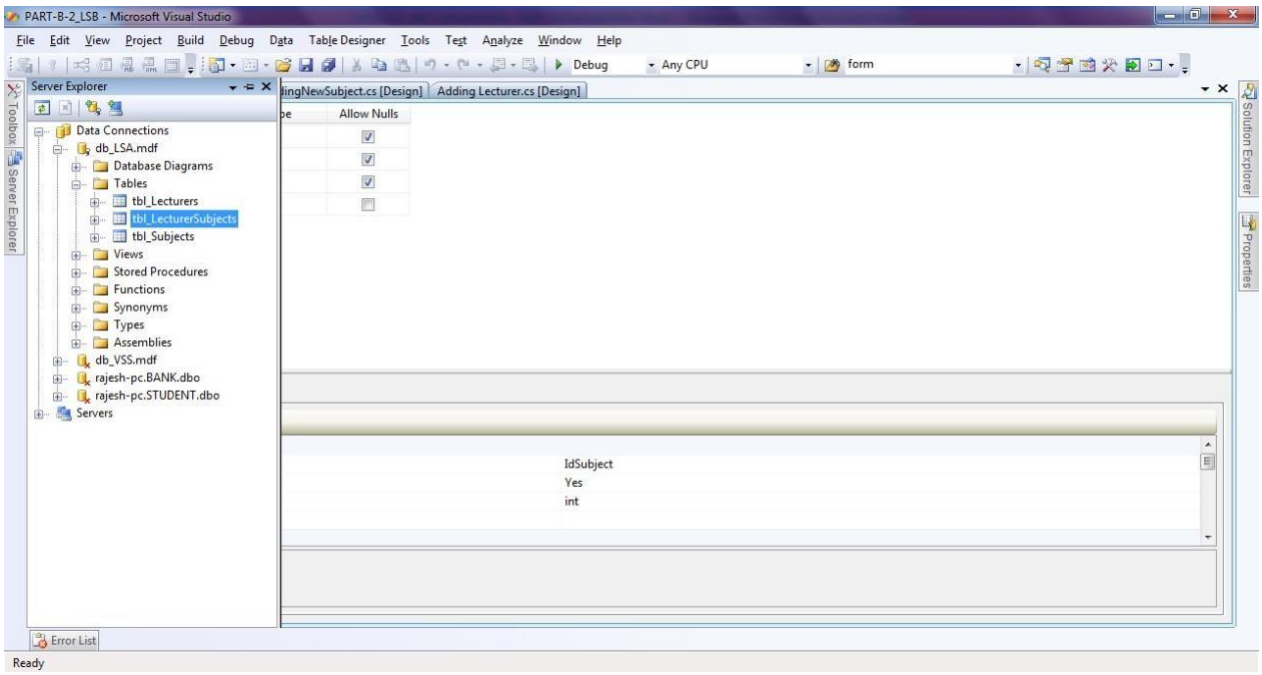


2) tbl_Lectures – Table Design

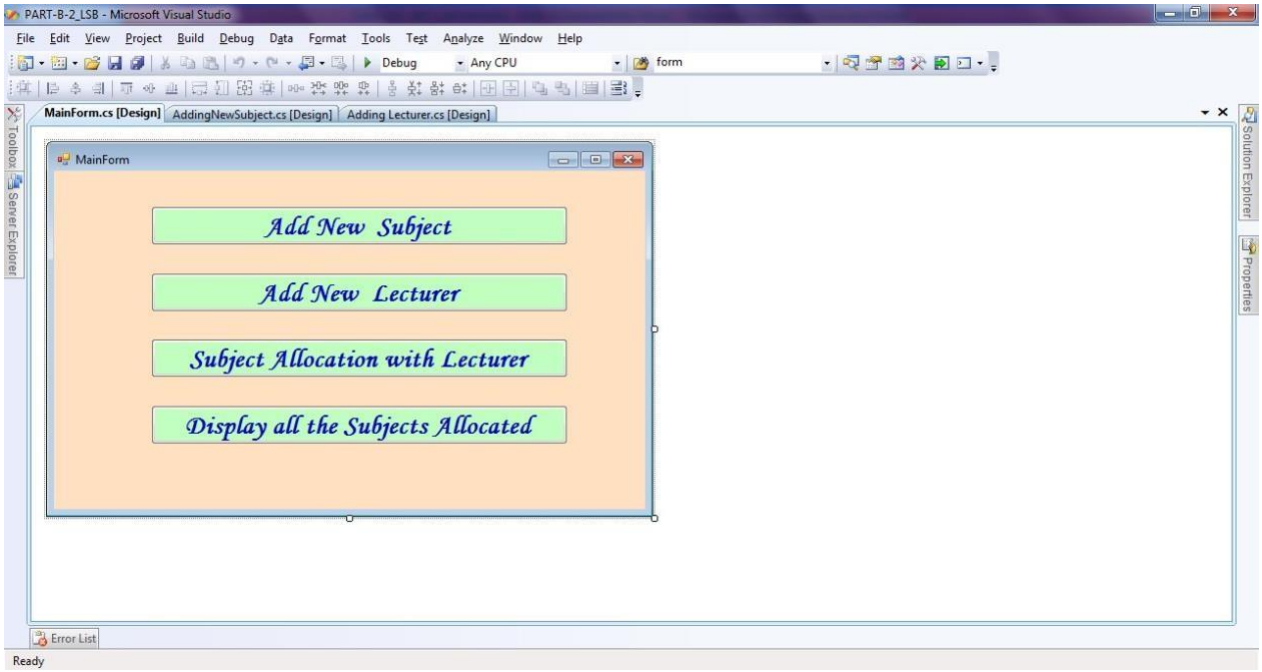


3) tbl_LecturerSubjects – Table Design





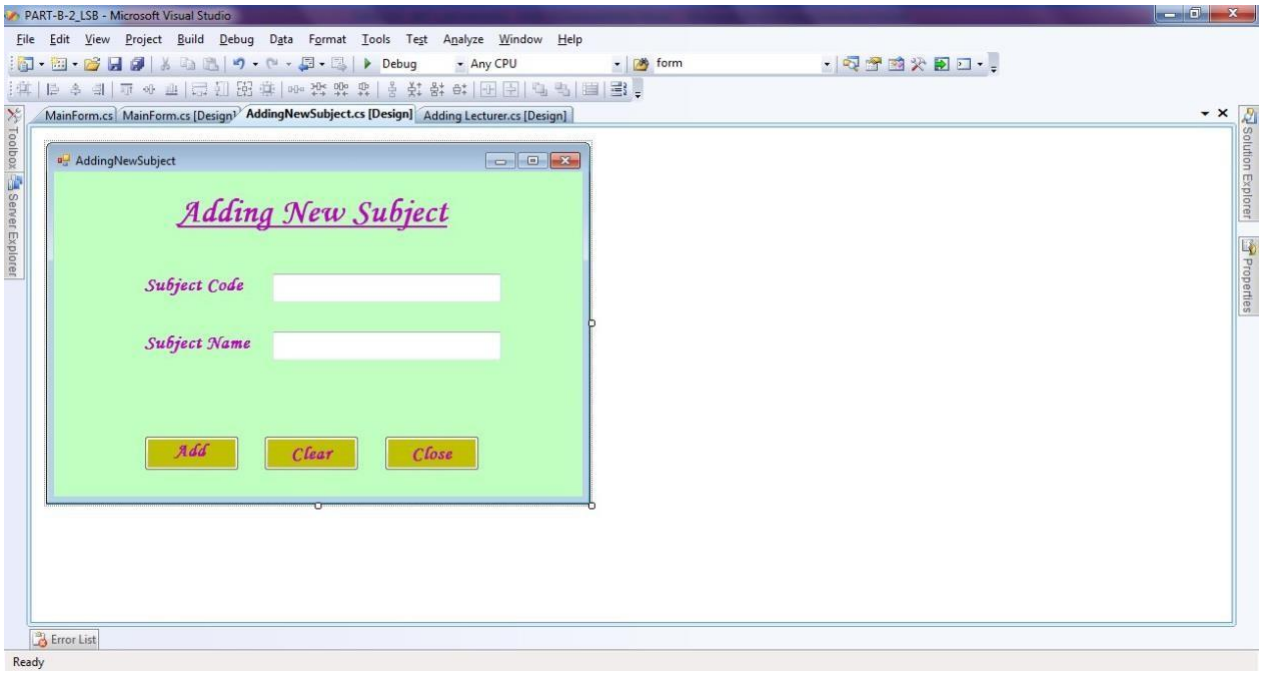
1) Main Form – Design:



Main Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace PART_B_2_LSB
{
    public partial class MainForm : Form
    {
        public MainForm()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            AddingNewSubject obj = new AddingNewSubject();
            obj.Show();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            Adding_Lecturer obj = new Adding_Lecturer();
            obj.Show();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Subject_Allocation obj = new Subject_Allocation();
            obj.Show();
        }

        private void button4_Click(object sender, EventArgs e)
        {
            Display_All_Subjects_Alloted_to_a_Faculty obj = new
Display_All_Subjects_Alloted_to_a_Faculty();
            obj.Show();
        }

    }
}
```

2) Adding New Subject Form – Design:

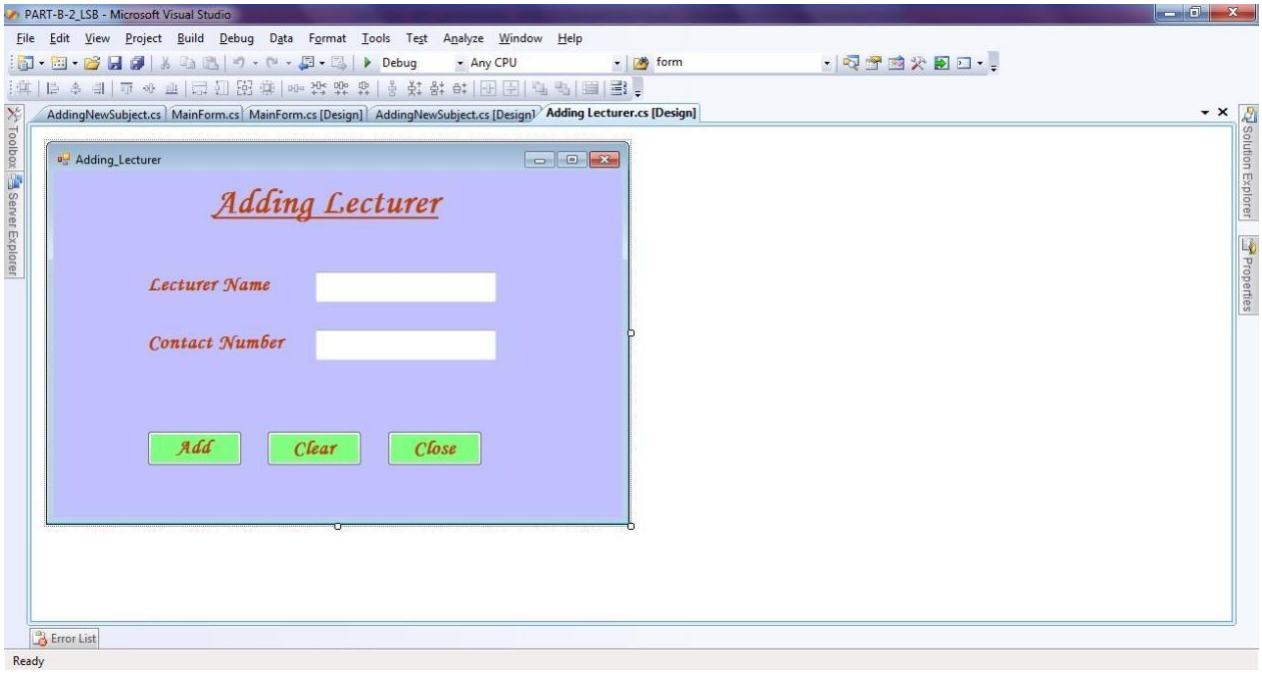


Adding New Subject Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace PART_B_2_LSB
{
    public partial class AddingNewSubject : Form
    {
        public AddingNewSubject()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_LSA.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string query = "insert into tbl_Subjects (SubjectCode,SubjectName)
values ('" + textBox2.Text + "','" + textBox3.Text + "')";
            SqlCommand cmd = new SqlCommand(query, con);
            int j = cmd.ExecuteNonQuery();
```

```
            if (j > 0)
                MessageBox.Show("New Subject '" + textBox3.Text + "' Added
Sucessfully");
            else
                MessageBox.Show("Insertion Failed");
            con.Close();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            textBox2.Text = "";
            textBox3.Text = "";
        }

        private void button3_Click(object sender, EventArgs e)
        {
            this.Close();
        }
    }
}
```

3) Adding Faculty Form – Design:

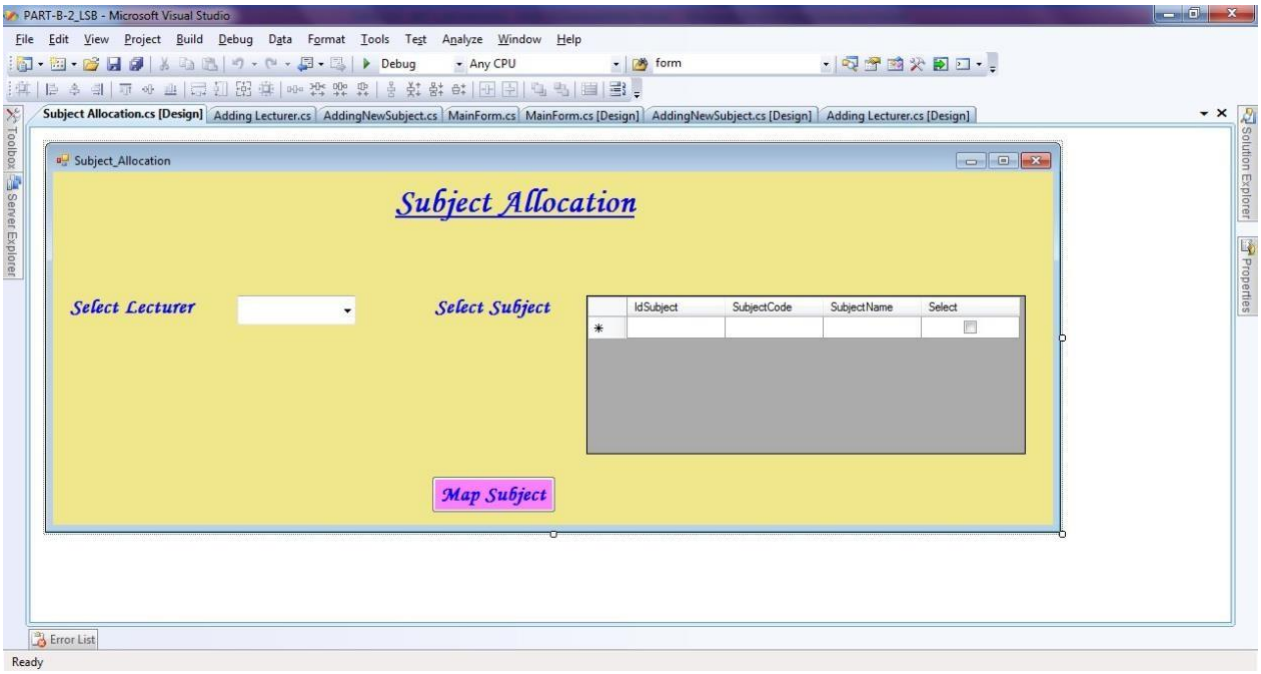


Adding Faculty Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
```

```
using System.Windows.Forms;
using System.Data.SqlClient;

namespace PART_B_2_LSB
{
    public partial class Adding_Lecturer : Form
    {
        public Adding_Lecturer()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_LSA.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string query = "insert into tbl_Lecturers (LecturerName,ContactNumber)
values ('" + textBox2.Text + "','" + textBox3.Text + "')";
            SqlCommand cmd = new SqlCommand(query, con);
            int j = cmd.ExecuteNonQuery();
            if (j > 0)
                MessageBox.Show("New Lecturer '" + textBox2.Text + "' Added
Sucessfully");
            else
                MessageBox.Show("Insertion Failed");
            con.Close();

        }

        private void button2_Click(object sender, EventArgs e)
        {
            textBox2.Text = "";
            textBox3.Text = "";
        }

        private void button3_Click(object sender, EventArgs e)
        {
            this.Close();
        }
    }
}
```

4) Subject Mapping Form – Design:

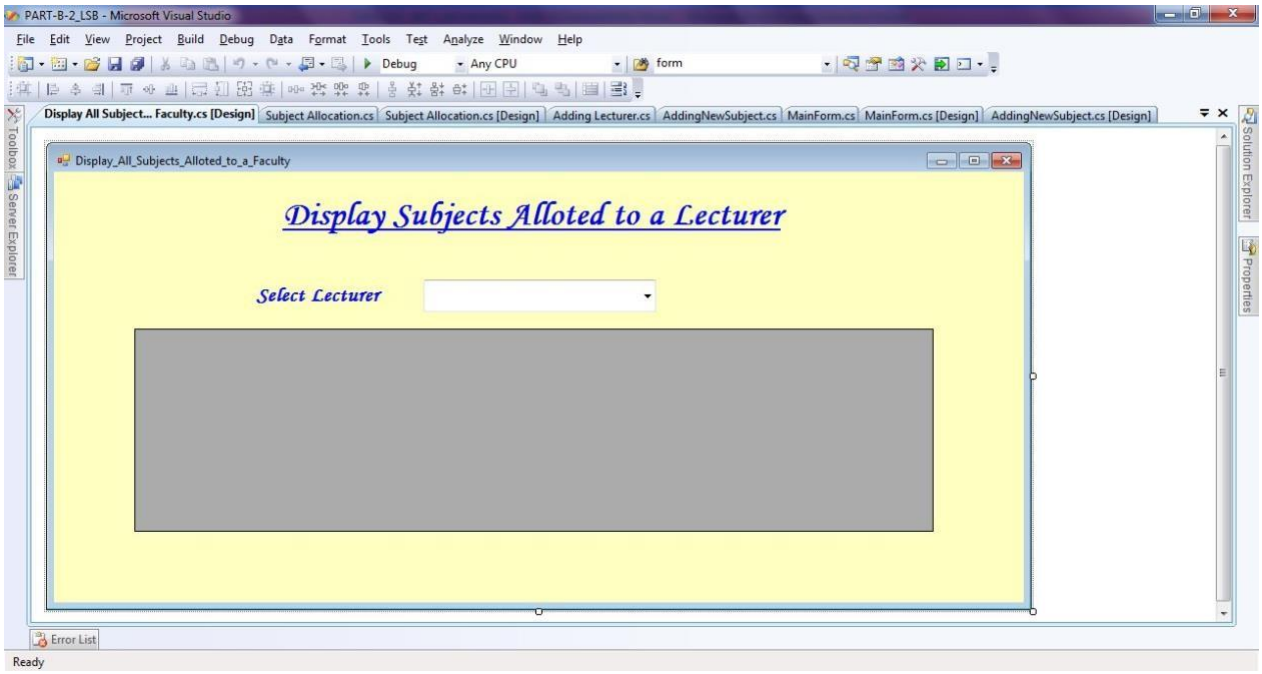


Subject Mapping Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace PART_B_2_LSB
{
    public partial class Subject_Allocation : Form
    {

        public Subject_Allocation()
        {
            InitializeComponent();
        }

        private void Subject_Allocation_Load(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_LSA.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string query = "select LecturerName from tbl_Lecturers";
            SqlDataAdapter sda = new SqlDataAdapter(query, con);
            DataTable dt = new DataTable();
            sda.Fill(dt);
```

```
            comboBox1.DataSource = dt;
            comboBox1.DisplayMember = "LecturerName";
            comboBox1.ValueMember = "LecturerName";

            string query1 = "select * from tbl_Subjects";
            SqlDataAdapter sda1 = new SqlDataAdapter(query1, con);
            DataTable dt1 = new DataTable();
            sda1.Fill(dt1);
            dataGridView1.DataSource = dt1;
            con.Close();


        }

        private void button1_Click(object sender, EventArgs e)
        {
            foreach (DataGridViewRow row in dataGridView1.Rows)
            {
                bool isSelected=Convert.ToBoolean(row.Cells["Select"].Value);
                if (isSelected)
                {
                    SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_LSA.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
                    con.Open();
                    string query = "select IdLecturer from tbl_Lecturers where
LecturerName='"+comboBox1.SelectedValue+"'";
                    SqlDataAdapter sda=new SqlDataAdapter (query,con);
                    DataTable dt = new DataTable();
                    sda.Fill(dt);
                    int lectr_id = int.Parse(dt.Rows[0][0].ToString());
                    int sub_id = int.Parse(row.Cells[1].Value.ToString());
                    string sub_code = row.Cells[2].Value.ToString();

                    string query1 = "insert into
tbl_LecturerSubjects(IdSubject,SubjectCode,IdLecturer) values (" + sub_id + ",'" +
sub_code + "'," + lectr_id + ")";
                    SqlCommand cmd = new SqlCommand(query1, con);
                    int j = cmd.ExecuteNonQuery();
                    if (j > 0)
                        MessageBox.Show("Subject  Mapped Sucessfully");
                    else
                        MessageBox.Show("Maping  Failed");
                    con.Close();

                }
            }

        }

    }
}
```

5) Display Mapped Subject Alloted to Faculty Form – Design:



Display Mapped Subject Alloted to Faculty Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace PART_B_2_LSB
{
    public partial class Display_All_Subjects_Alloted_to_a_Faculty : Form
    {
        public Display_All_Subjects_Alloted_to_a_Faculty()
        {
            InitializeComponent();
        }

        private void Display_All_Subjects_Alloted_to_a_Faculty_Load(object sender,
EventArgs e)
        {

            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_LSA.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string query = "select LecturerName from tbl_Lecturers";
            SqlDataAdapter sda = new SqlDataAdapter(query, con);
            DataTable dt = new DataTable();
```

```
            sda.Fill(dt);
            comboBox1.DataSource = dt;
            comboBox1.DisplayMember = "LecturerName";
            comboBox1.ValueMember = "LecturerName";


            string query1 = "select distinct IdLecturer from tbl_Lecturers where
LecturerName='" + comboBox1.SelectedValue + "'";
            SqlDataAdapter sda1 = new SqlDataAdapter(query1, con);
            DataTable dt1 = new DataTable();
            sda1.Fill(dt1);
            int lectid = int.Parse(dt1.Rows[0][0].ToString());

            string query2 = "select distinct * from tbl_LecturerSubjects where
IdLecturer= "+lectid +" ";
            SqlDataAdapter sda2 = new SqlDataAdapter(query2, con);
            DataTable dt2 = new DataTable();
            sda2.Fill(dt2);
            dataGridView1.DataSource = dt2;
            con.Close();
        }

        private void comboBox1_SelectionChangeCommitted(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_LSA.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();

            string query1 = "select distinct IdLecturer from tbl_Lecturers where
LecturerName='" + comboBox1.SelectedValue + "'";
            SqlDataAdapter sda1 = new SqlDataAdapter(query1, con);
            DataTable dt1 = new DataTable();
            sda1.Fill(dt1);
            int lectid = int.Parse(dt1.Rows[0][0].ToString());

            string query2 = "select distinct * from tbl_LecturerSubjects where
IdLecturer= " + lectid + " ";
            SqlDataAdapter sda2 = new SqlDataAdapter(query2, con);
            DataTable dt2 = new DataTable();
            sda2.Fill(dt2);
            dataGridView1.DataSource = dt2;
            con.Close();
        }
    }
}
```

3) Consider the database db_VSS (Vehicle Service Station) consisting of the following tables:
tbl_VehicleTypes(IdVehicleType: int, VehicleType: string, ServiceCharge: int)
tbl_ServiceDetails(IdService: int, VehicleNumber: string, ServiceDetails: string, IdVehicleType: int)

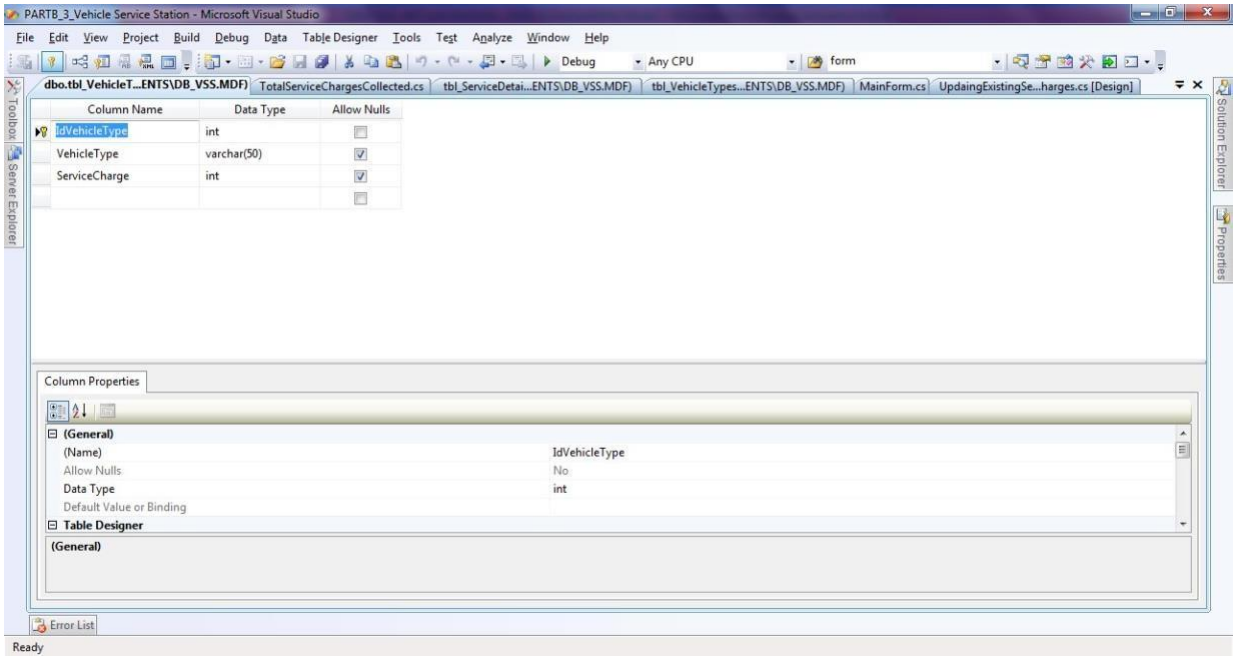
Develop a suitable window application using C#.NET having following options.

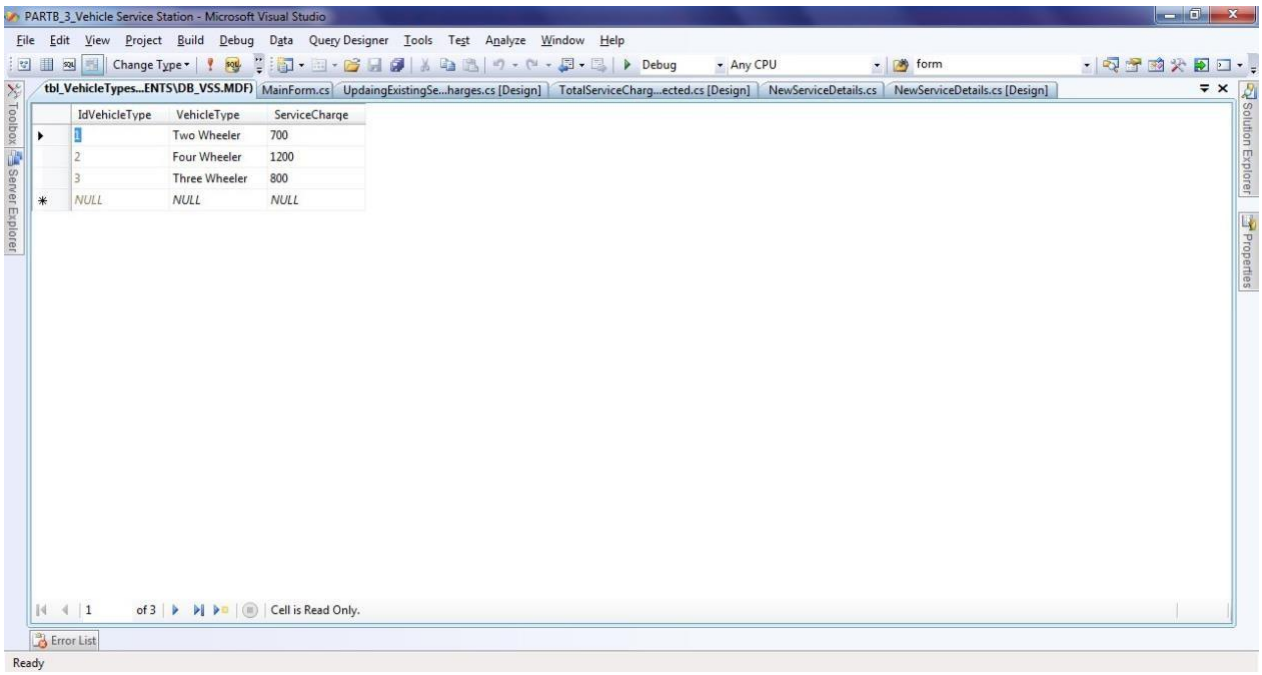
1. Enter new Service Details for the Selected Vehicle Type (In a Combo Box).
2. Update the Existing Service Charges to Database.
3. Total Service Charges Collected for the Selected Vehicle (In a Combo box) with total amount displayed in a text box.

NOTE: tbl_VehicleType is a static table containing the following Rows in it.

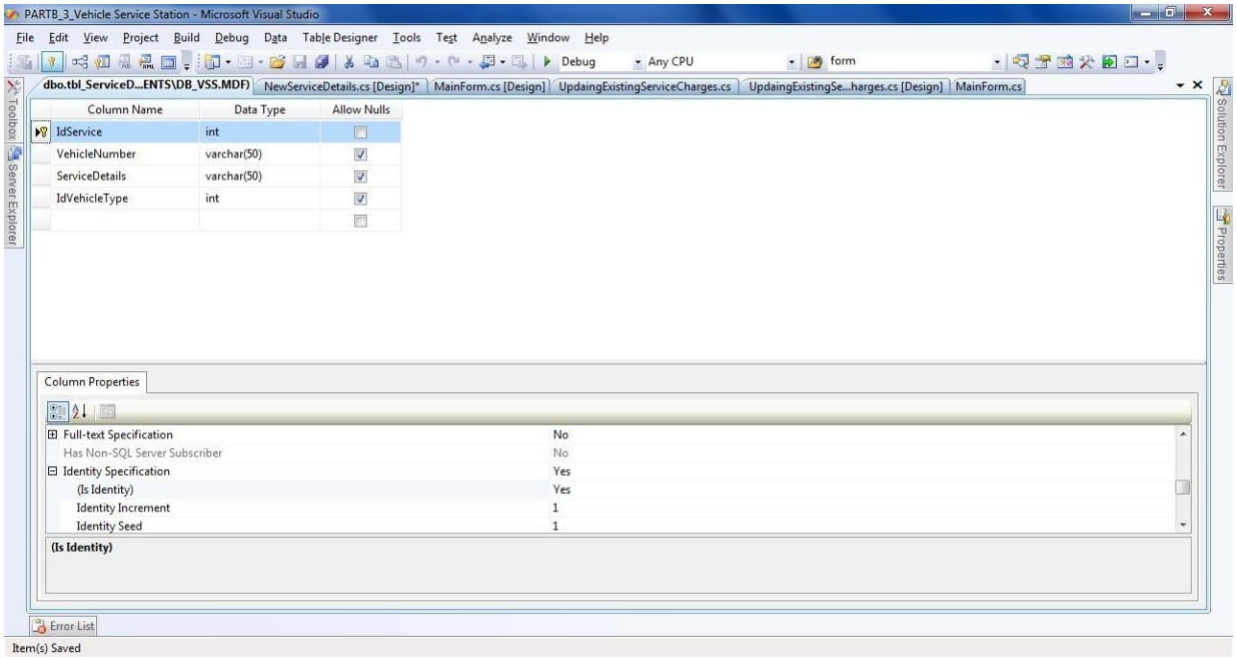
1	Two Wheeler	500
2	Four Wheeler	1000
2	Three Wheeler	700

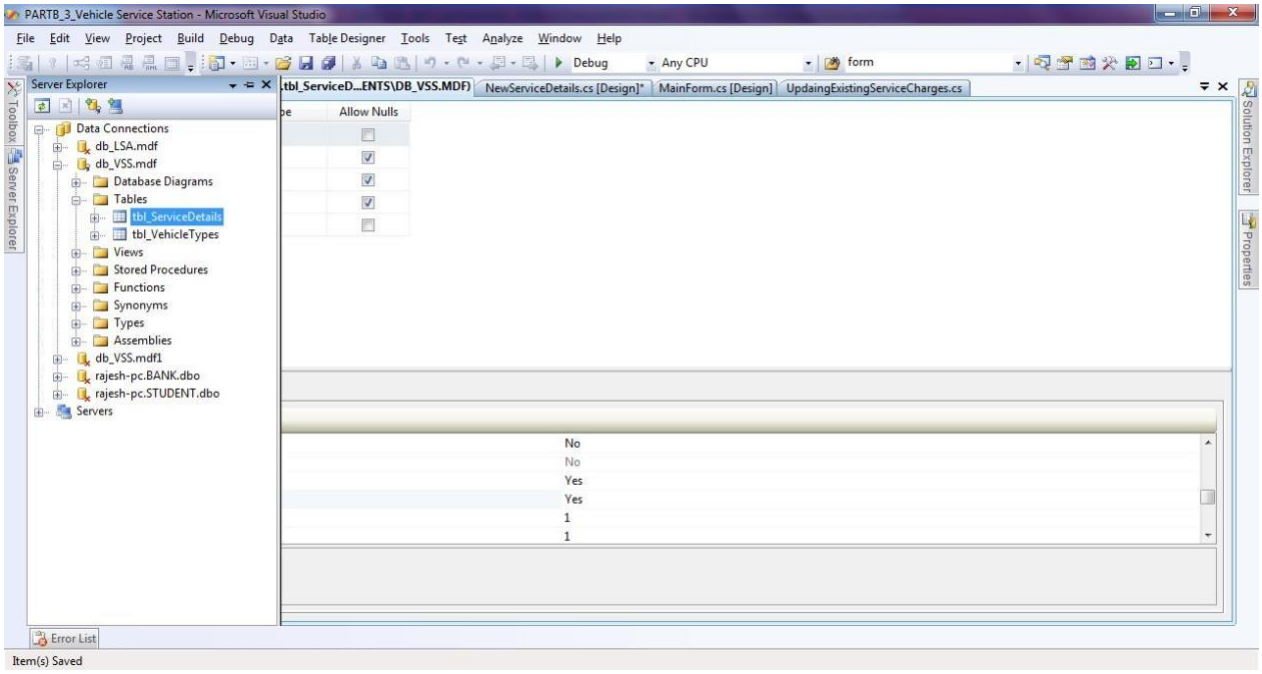
1) tbl_VehicleTypes – Table:



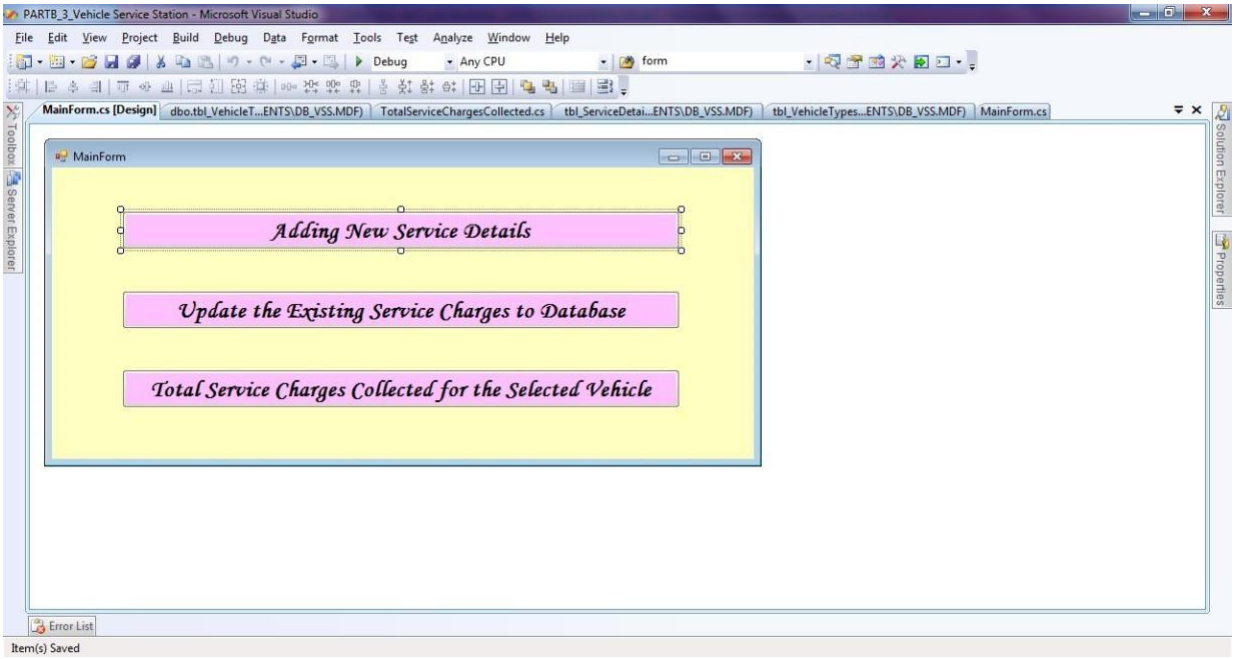


2) tbl_ServiceDetails – Table:





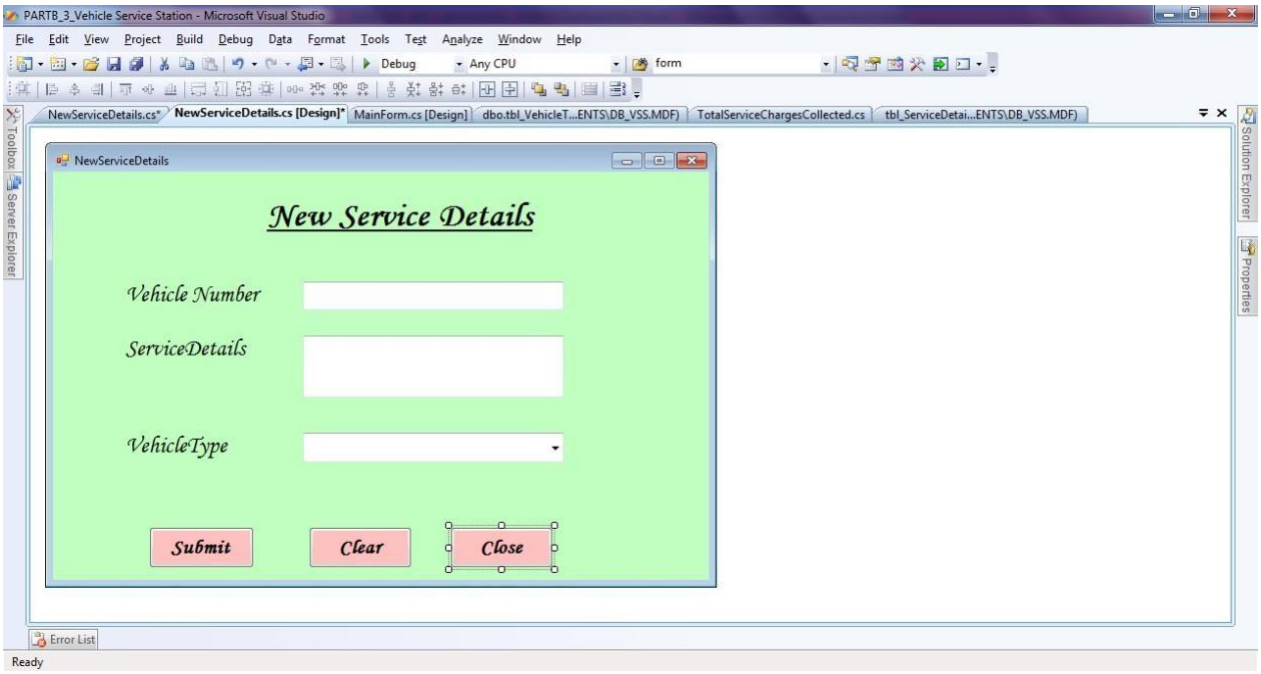
1) MainForm – Design:



MainForm – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

namespace PARTB_3_Vehicle_Service_Station
{
    public partial class MainForm : Form
    {
        public MainForm()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            NewServiceDetails obj = new NewServiceDetails();
            obj.Show();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            TotalServiceChargesCollected obj = new TotalServiceChargesCollected();
            obj.Show();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            UpdaingExistingServiceCharges obj = new
UpdaingExistingServiceCharges();
            obj.Show();
        }

    }
}
```

2) New Service Form – Design:

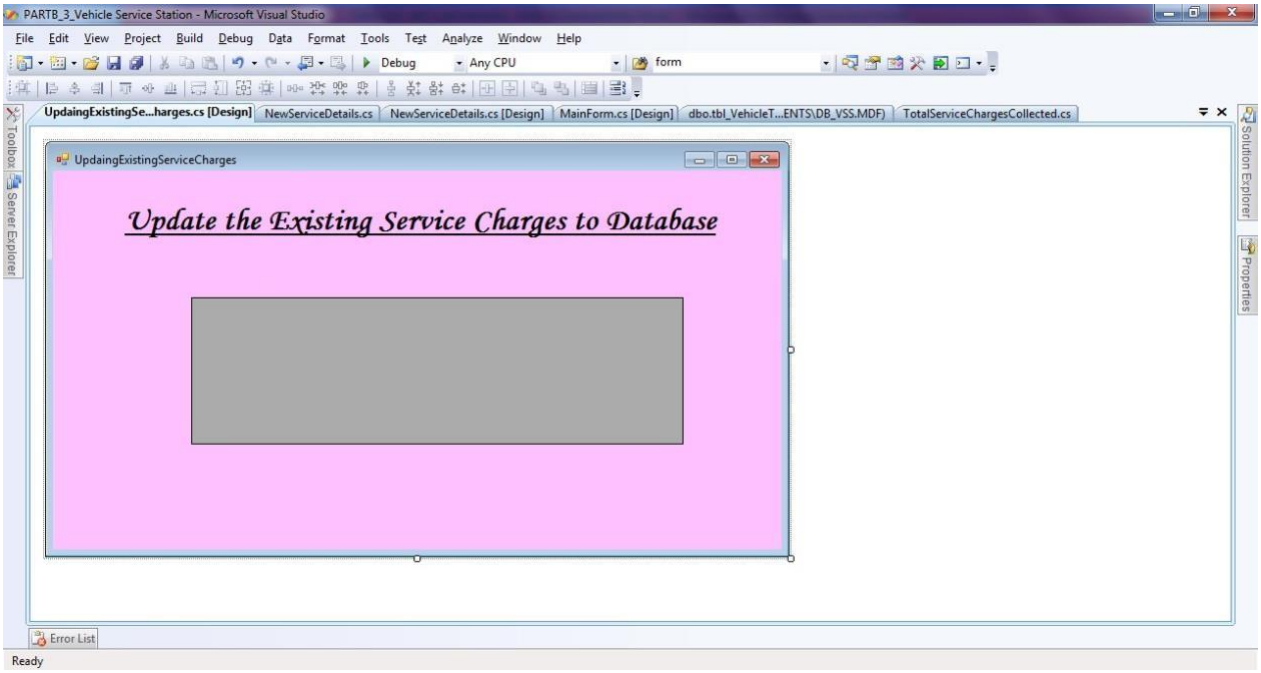


New Service Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;


namespace PARTB_3_Vehicle_Service_Station
{
    public partial class NewServiceDetails : Form
    {
        public NewServiceDetails()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_VSS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            int idvechtype = comboBox1.SelectedIndex + 1;
```

```
            string query = "insert into tbl_ServiceDetails
(VehicleNumber,ServiceDetails,IdVehicleType) values ('" + textBox2.Text + "','" +
textBox3.Text + "','"+idvechtype+")";
            SqlCommand cmd = new SqlCommand(query, con);
            int j = cmd.ExecuteNonQuery();
            if (j > 0)
                MessageBox.Show("Service Done for '" + textBox2.Text + "'
Sucessfully");
            else
                MessageBox.Show("Insertion Failed");
            con.Close();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            textBox2.Text = "";
            textBox3.Text = "";
            comboBox1.SelectedIndex= -1;
        }

        private void button3_Click(object sender, EventArgs e)
        {
            this.Close();
        }
    }
}
```

3) Update Service Charge Form – Design:

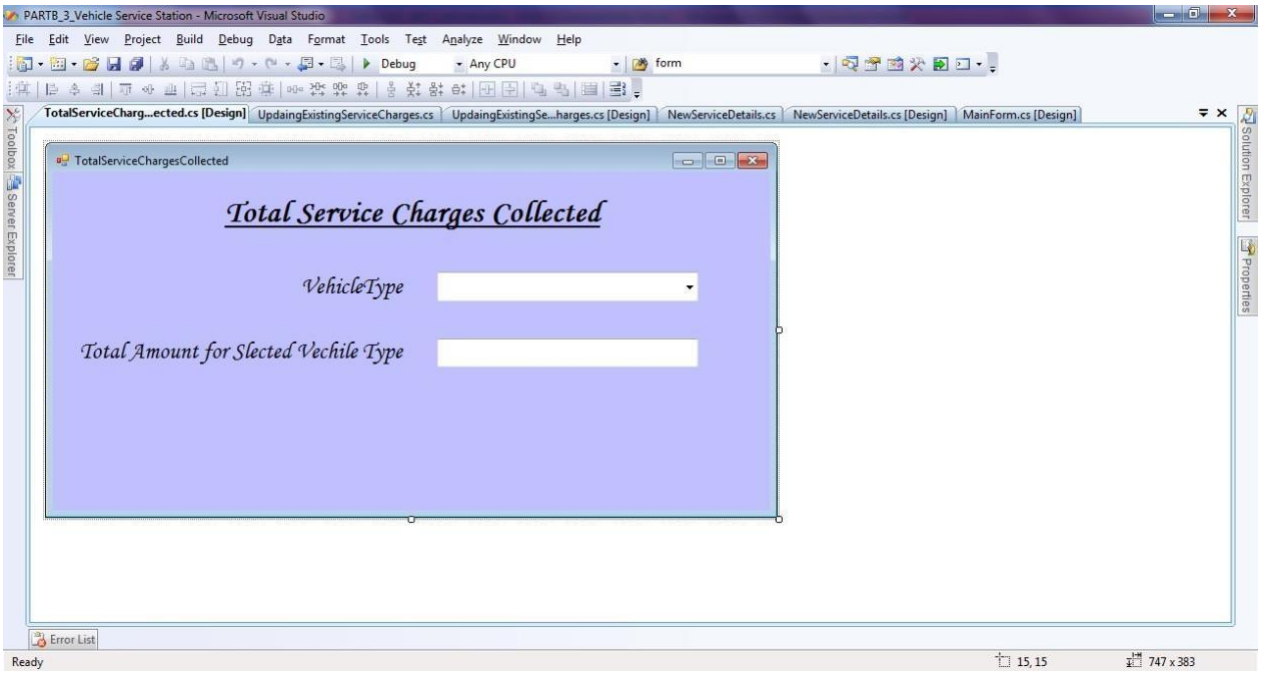


Update Service Charge Form – Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
```

```
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace PARTB_3_Vehicle_Service_Station
{
    public partial class UpdaingExistingServiceCharges : Form
    {
        public UpdaingExistingServiceCharges()
        {
            InitializeComponent();
        }

        private void UpdaingExistingServiceCharges_Load(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_VSS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string query = "select * from tbl_VehicleTypes";
            SqlDataAdapter sda = new SqlDataAdapter(query, con);
            DataTable dt = new DataTable();
            sda.Fill(dt);
            dataGridView1.DataSource = dt;
            dataGridView1.Columns[0].ReadOnly = true;
            dataGridView1.Columns[1].ReadOnly = true;
            con.Close();
        }
        private void dataGridView1_CellValueChanged(object sender,
DataGridViewCellEventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_VSS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            DialogResult result;
            result = MessageBox.Show("Are You sure want to update?",
"Conformation", MessageBoxButtons.YesNo);
            if (result == System.Windows.Forms.DialogResult.Yes)
            {
               // for (int i = 0; i < dataGridView1.Rows.Count; i++)
                SqlCommand command = new SqlCommand("UPDATE tbl_VehicleTypes SET
ServiceCharge = " + dataGridView1.SelectedCells[0].Value.ToString() + " Where
IdVehicleType = '" + dataGridView1.CurrentRow.Cells[0].Value.ToString() + "'   ",
con);
                command.ExecuteNonQuery();
                MessageBox.Show("Updated Sucessfully");
            }
            con.Close();
        }
    }
}
```

4) Toatl Service Charges Collected Form – Design:



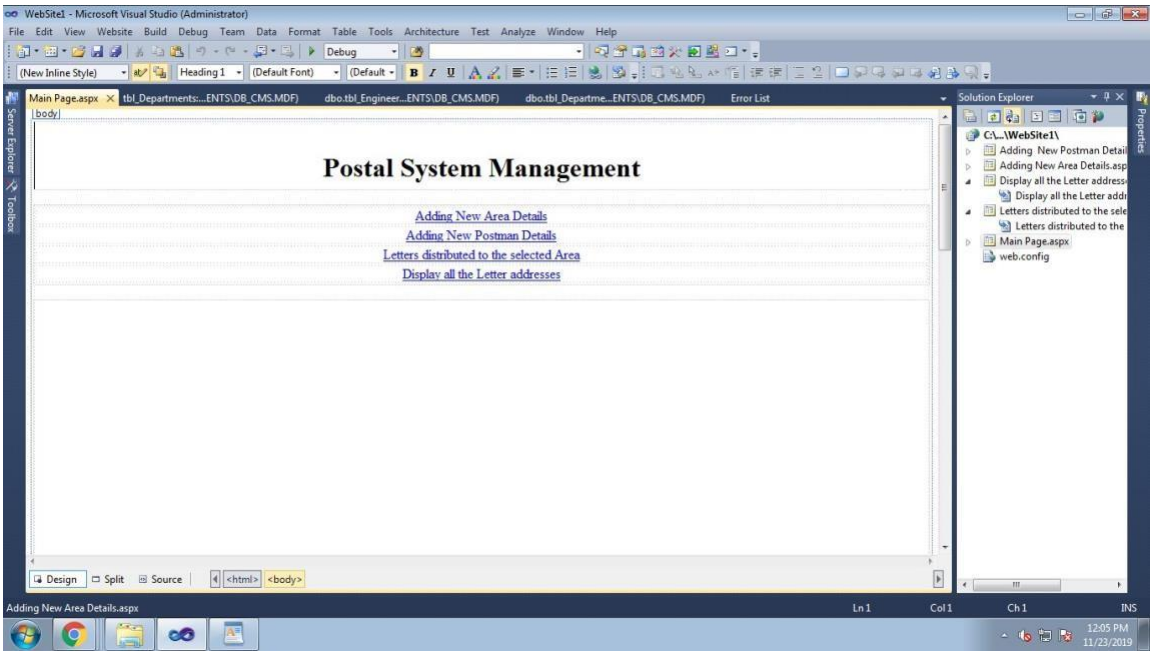
Toatl Service Charges Collected Form – Code:

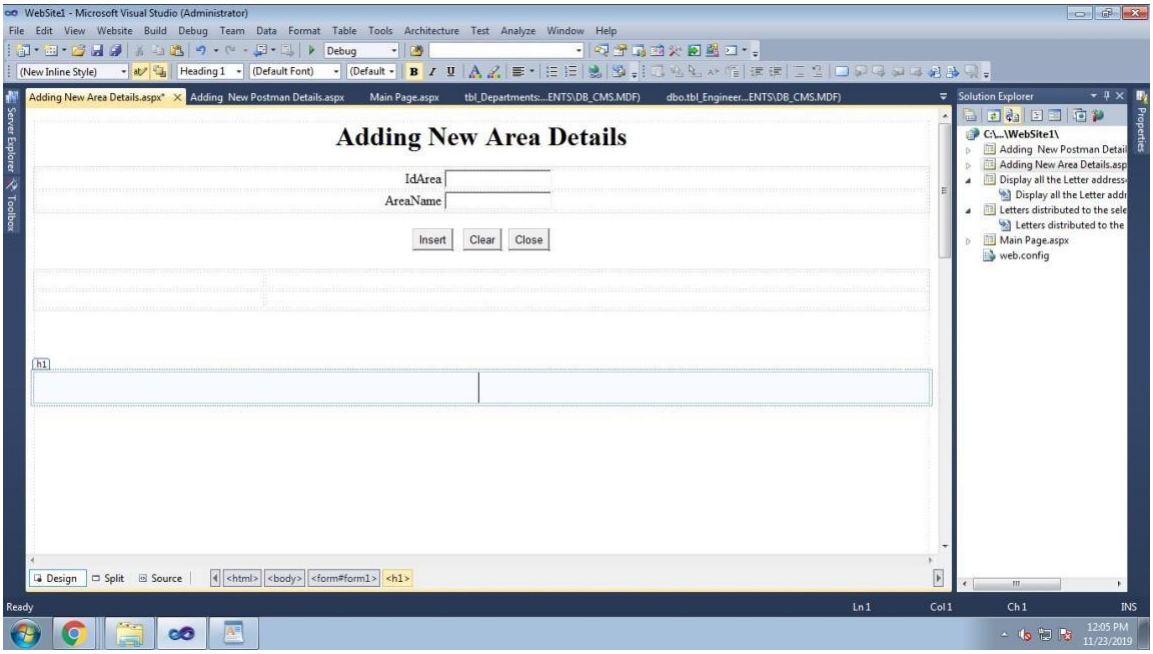
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace PARTB_3_Vehicle_Service_Station
{
    public partial class TotalServiceChargesCollected : Form
    {
        public TotalServiceChargesCollected()
        {
            InitializeComponent();
        }

        private void comboBox1_SelectedValueChanged(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\RAJESH\\Documents\\db_VSS.mdf;Inte
grated Security=True;Connect Timeout=30;User Instance=True");
            con.Open();
            string query = "select IdVehicleType from tbl_ServiceDetails where
IdVehicleType=" + (comboBox1.SelectedIndex + 1) + "";
            SqlDataAdapter sda = new SqlDataAdapter(query, con);
            DataTable dt = new DataTable();
            sda.Fill(dt);
```

```
            string query1 = "select ServiceCharge from tbl_VehicleTypes where
IdVehicleType=" + (comboBox1.SelectedIndex + 1) + "";
            SqlDataAdapter sda1 = new SqlDataAdapter(query1, con);
            DataTable dt1 = new DataTable();
            sda1.Fill(dt1);
            int samt=int.Parse(dt1.Rows[0][0].ToString());
            int totamt = (dt.Rows.Count) * samt;
            textBox1.Text = totamt.ToString();
        }
    }
}
```

4) Develop a web application using C#.NET and ASP.NET for the Postal System Management. The master page should contain the hyper links for adding ***Area Details***, ***Postman details***, ***Letter distributions*** and ***View Letters***.

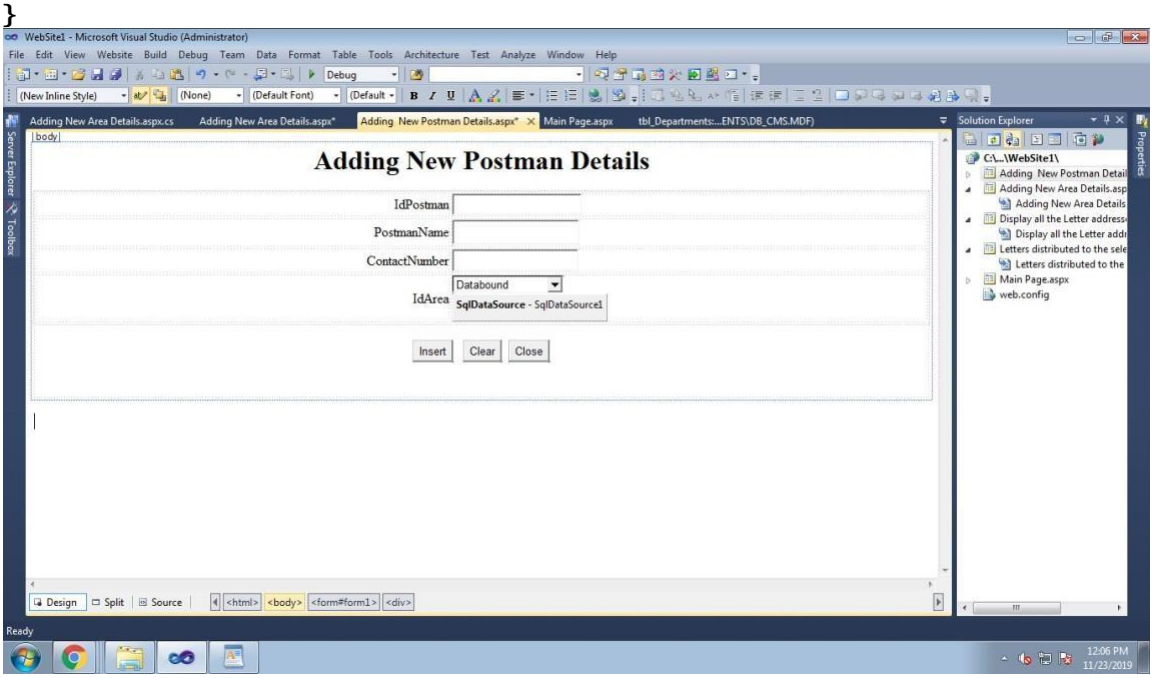
Consider the database db_PSM (Postal System Management) consisting of the following tables:
tbl_AreaDetails(IdArea: int, AreaName: string)
tbl_PostmanDetails(IdPostman: int, PostmanName: string, ContactNumber: string, IdArea: int)
tbl_AreaLetters(IdLetter: int, LetterAddress: string, IdArea: int)
Develop the suitable content pages for the above created 4 hyper links with the following details:
1. Enter New Area Details
2. Enter New Postman Details with the Area he/she is in-charge of (display Area in a Combo box)
3. Enter all the Letters distributed to the selected Area (display Area in a Combo box)
4. Display all the Letter addresses (In a Grid) to be distributed by the selected Postman (In a Combo box





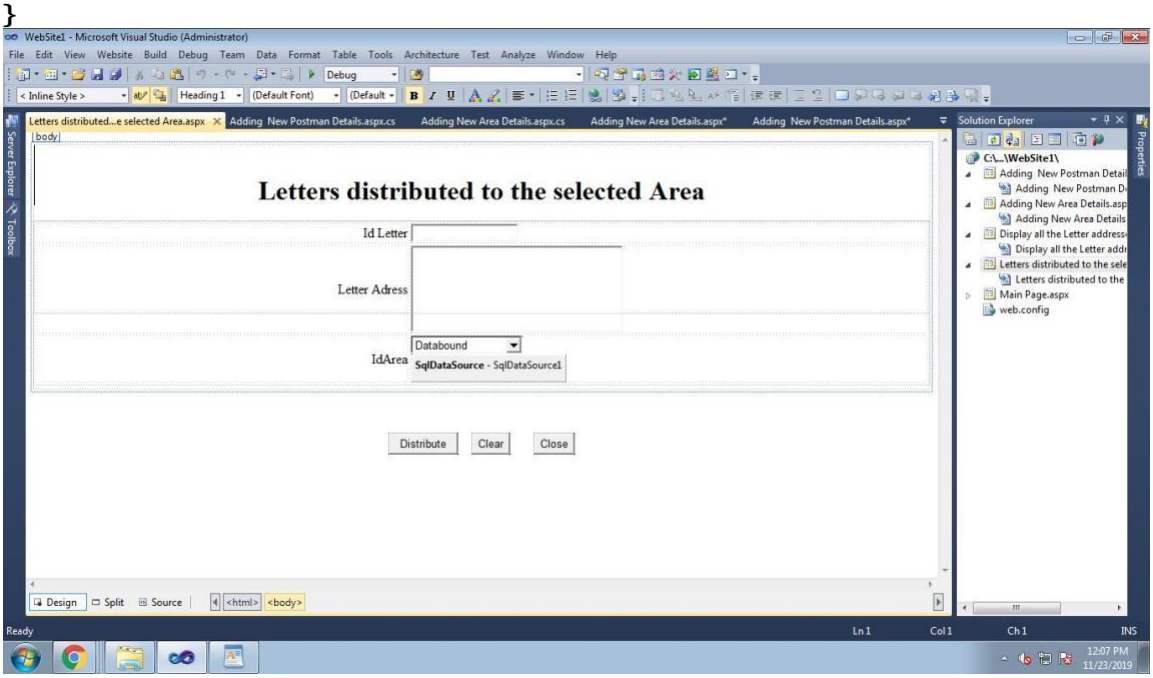

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;

public partial class Adding_New_Area_Details : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\adminz1\\Documents\\db_PSM.mdf;Integrated
Security=True;Connect Timeout=30;User Instance=True");
        con.Open();
        string query="insert into
tbl_AreaDetails(IdArea,AreaName)values("+TextBox1.Text+",'"+TextBox2.Text+"')";
            SqlCommand cmd=new SqlCommand (query,con);
            int j = cmd.ExecuteNonQuery();
        if(j>=1)
            Response.Write("<script>alert('successfuly Insretd');</script>");
        else
            Response.Write("<script>alert(' Insretion Failed');</script>");
        con.Close();


    }
    protected void Button2_Click(object sender, EventArgs e)
    {
        TextBox1.Text = "";
```

```
        TextBox2.Text = "";
    }
    protected void Button3_Click(object sender, EventArgs e)
    {
        Response.Write("<script>window.close();</script>");
    }
}
```



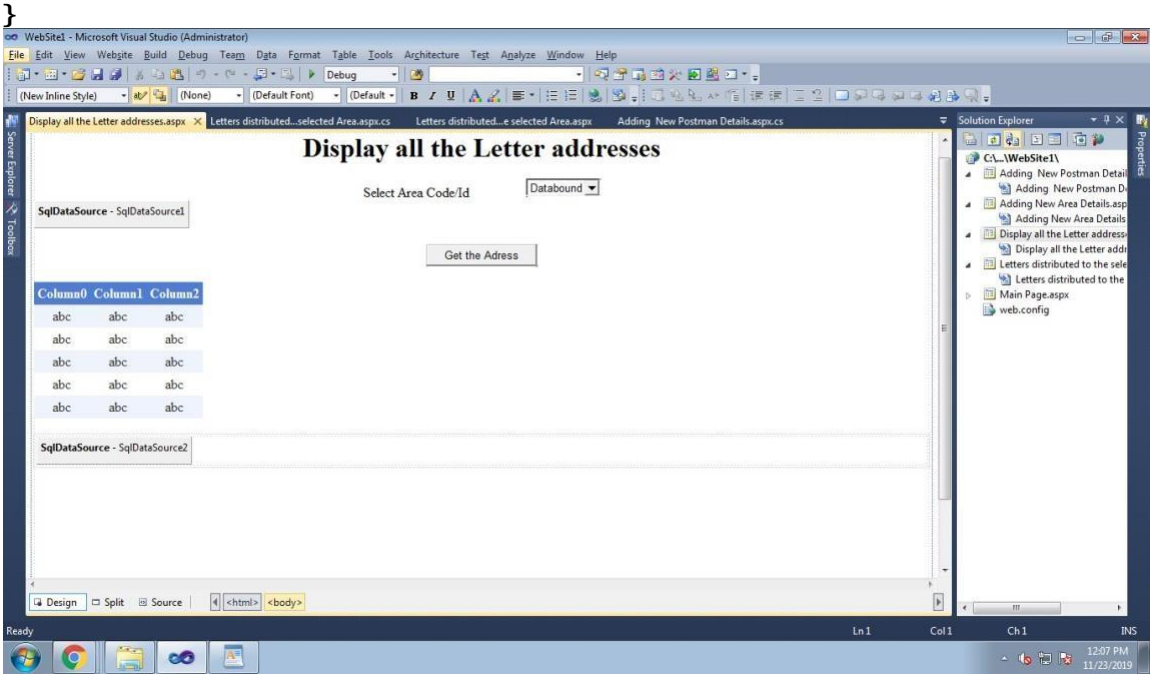

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;

public partial class Adding__New_Postman_Details : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button4_Click(object sender, EventArgs e)
    {
        SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\adminz1\\Documents\\db_PSM.mdf;Integrated
Security=True;Connect Timeout=30;User Instance=True");
        con.Open();
        int idarea = int.Parse(DropDownList1.SelectedValue.ToString());
        string query = "insert into
tbl_PostmanDetails(IdPostman,PostmanName,ContactNumber,IdArea)values(" + TextBox1.Text + ",'" +
TextBox2.Text + "','" + TextBox3.Text + "',"+idarea+")";
        SqlCommand cmd = new SqlCommand(query, con);
        int j = cmd.ExecuteNonQuery();
```

```
        if (j >= 1)
            Response.Write("<script>alert('successfuly Insretd');</script>");
        else
            Response.Write("<script>alert(' Insretion Failed');</script>");
        con.Close();
    }
}
```




```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;

public partial class Letters_distributed_to_the_selected_Area : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\adminz1\\Documents\\db_PSM.mdf;Integrated
Security=True;Connect Timeout=30;User Instance=True");
        con.Open();
        int idarea = int.Parse(DropDownList1.SelectedValue.ToString());
        string query = "insert into tbl_AreaLetters(IdLetter,LetterAddress,IdArea)values(" +
TextBox1.Text + ",'" + TextBox2.Text + "'," + idarea + ")";
        SqlCommand cmd = new SqlCommand(query, con);
        int j = cmd.ExecuteNonQuery();
        if (j >= 1)
            Response.Write("<script>alert('successfuly Distribted');</script>");
        else
```

```
            Response.Write("<script>alert(' Distribution Failed");</script>");
            con.Close();
        }
}
```



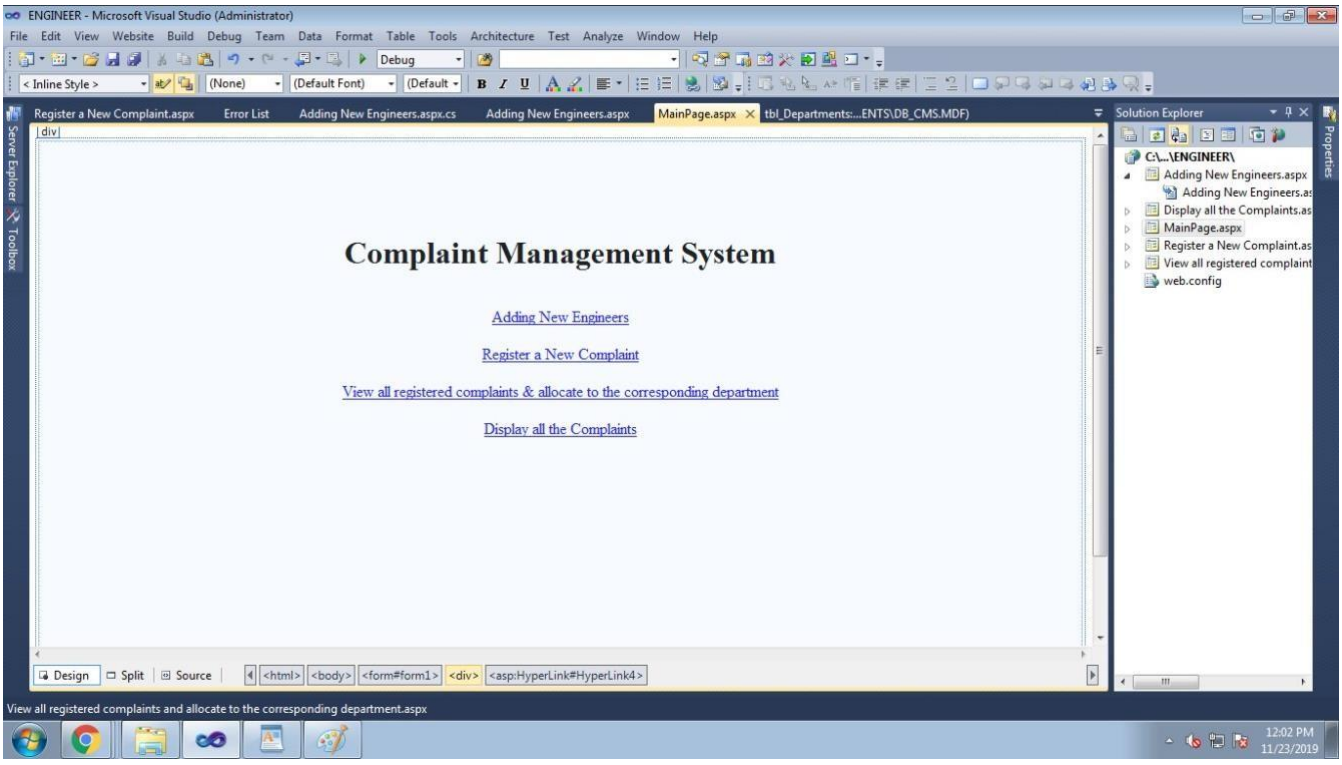

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Data;


public partial class Display_all_the_Letter_addresses : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {


    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\\adminz1\\Documents\\db_PSM.mdf;Integrated
Security=True;Connect Timeout=30;User Instance=True");
        con.Open();
        int idarea = int.Parse(DropDownList1.SelectedValue.ToString());
        string query = "select LetterAddress from tbl_AreaLetters where IdArea=" + idarea + "";
        SqlDataAdapter sda = new SqlDataAdapter(query, con);
        DataSet ds = new DataSet();
        sda.Fill(ds);
```

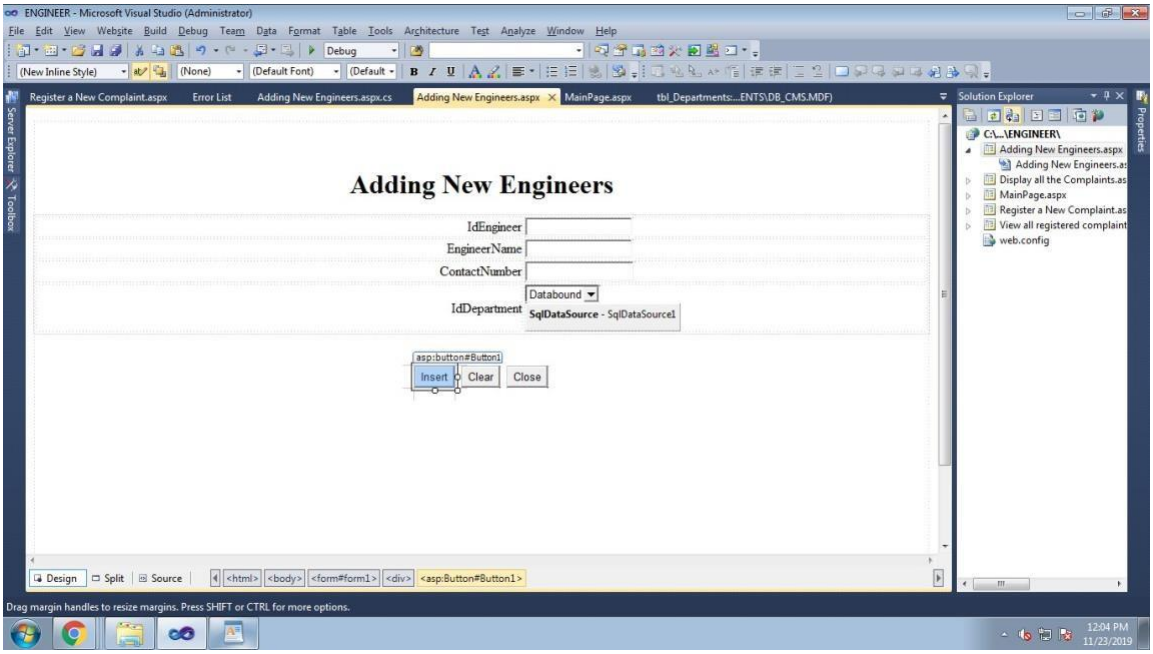
```
            GridView1.DataSource = ds.Tables[0];
            GridView1.DataBind();
            con.Close();
        }
        protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
        {

        }
    }
```

5) Develop a web application using C#.NET and ASP.NET for the Complaint Management System. The master page should contain the hyper links for ***Add Engineer***, ***Complaint Registration, Complaint Allocation*** and ***View Complaints***.

Consider the database db_CMS (Complaint Management System) consisting of the following tables:
tbl_Departments(IdDepartment: int, DepartmentName: string)
tbl_Engineers(IdEngineer: int, EngineerName: string, ContactNumber: string, IdDepartment: int)
tbl_RegisteredComplaints(IdComplaint: int, ComplaintDescription: string)
tbl_DepartmentComplaints(IdDepartment: int, IdComplaint: int)
Develop the suitable content pages for the above created 4 hyper links with the following details:
1. Enter New Engineers belonging to the selected department (displayed in a combo box)
2. Register a new Complaint with a submit button.
3. View all registered complaints & allocate to the corresponding department (displayed in a combo box)
4. Display all the Complaints (In a Grid) to be handled by the selected Engineer (In a Combo box)

NOTE: Consider the table tbl_Departments as a static table containing some pre-entered departments, which are displayed in all the remaining modules.






```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web.UI.WebControls;
using System.Data.SqlClient;

public partial class Adding_New_Engineers : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        SqlConnection con = new SqlConnection("Data
Source=.\\SQLEXPRESS;AttachDbFilename=C:\\Users\adminz1\\Documents\\db_CMS.mdf;Integrated
Security=True;Connect Timeout=30;User Instance=True");
        con.Open();
        int iddept = int.Parse(DropDownList1.SelectedValue.ToString());
        string query = "insert into
tbl_Engineers(IdEngineer,EngineerName,ContactNumber,IdDepartment
)values("+TextBox1.Text+"."'"+TextBox2.Text+"'","'"+TextBox3.Text+"'","+iddept+") ";
        SqlCommand cmd = new SqlCommand(query, con);
        int j = cmd.ExecuteNonQuery();
        if (j >= 1)
            Response.Write("<script>alert(New Engineer " + TextBox2.Text + "Addeed
Sucessfully)</script>");
        else
            Response.Write("<script>alert(Insretion Failed)</script> ");
        con.Close();
    }
}
```