1. CLASSES AND OBJECTS

AIM:

To develop a visual C# Console Application using classes and objects to do a bank account transaction.

ALGORITHM:

STEP 1: Start Microsoft Visual Studio

STEP 2: Create a new console Application project.

STEP 3: Create a class in solution explorer with a class name Account.

STEP 4: Read data members accno,name,amt.

STEP 5: Using constructor initialize accno, name & initial amt.

STEP 6: Create member methods deposit(), withdraw(), & current balance().

STEP 7: Create a object for Account() in program class

STEP 8: Stop the console application.

PROGRAM:

CLASS:

Account.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;

namespace ConsoleApplication1
{
   class Account
   {
      private int accno;
      private string name;
      private double amt;
      public Account()
```

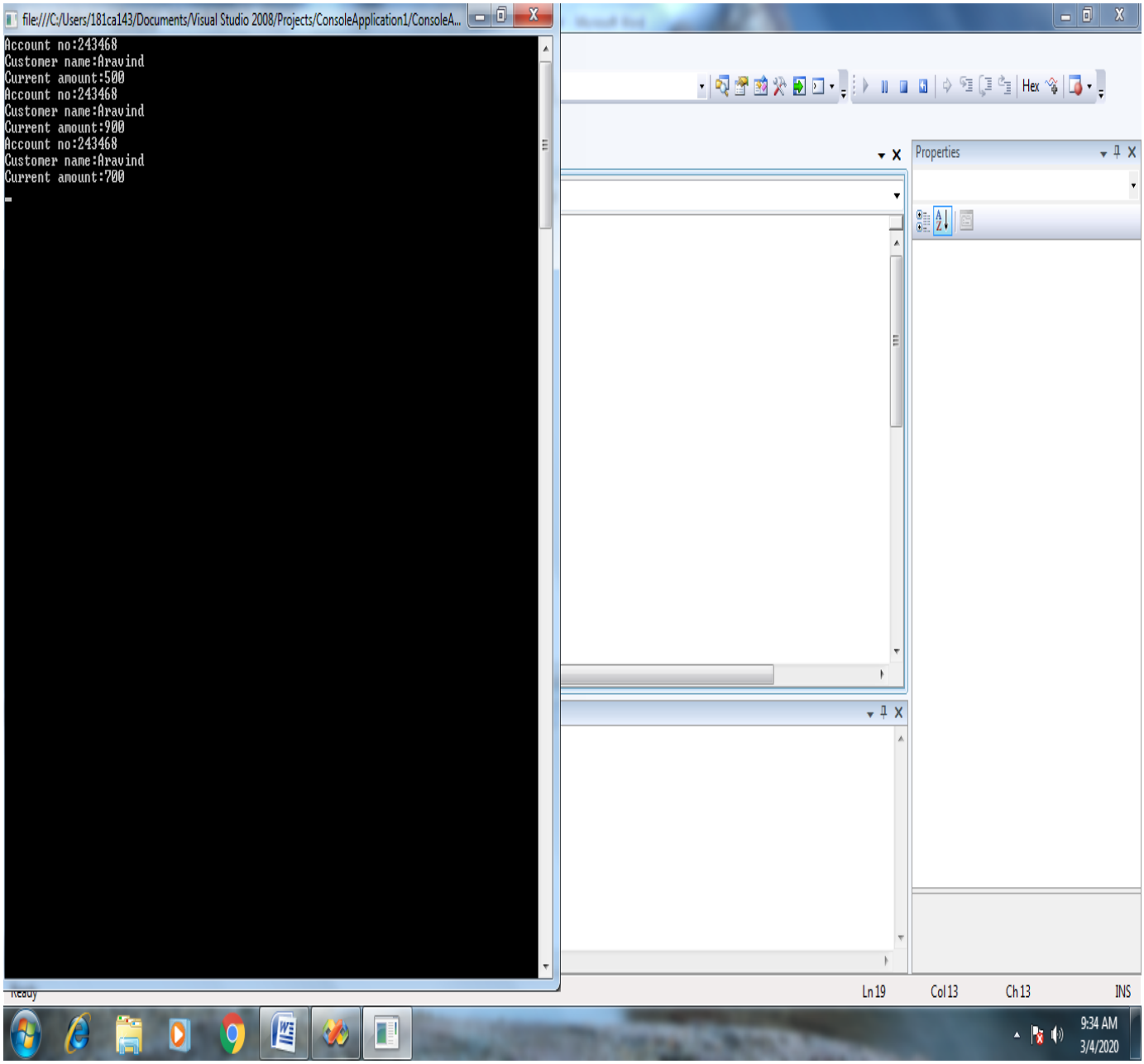
```
        {
            accno = 243468;
            name = "Aravind";
            amt = 500.00;
        }
        public void deposit(double damt)
        {
            amt = amt + damt;
        }
        public void withdraw(double wamt)
        {
            amt = amt - wamt;
        }
        public void currentbalance()
        {
            Console.WriteLine("Account no:" + accno);
            Console.WriteLine("Customer name:" + name);
            Console.WriteLine("Current amount:" + amt);
        }
    }
}
```

Program.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;

namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            var a = new Account();
            a.currentbalance();
            a.deposit(400.00);
            a.currentbalance();
            a.withdraw(200.00);
            a.currentbalance();
            Console.ReadKey();
```

```
        }
    }
}
```

OUTPUT:


file:///C:/Users/181ca143/Documents/Visual Studio 2008/Projects/ConsoleApplication1/ConsoleA...
Account no:243468
Customer name:Aravind
Current amount:500
Account no:243468
Customer name:Aravind
Current amount:900
Account no:243468
Customer name:Aravind
Current amount:700
Properties
Ready
Ln 19
Col 13
Ch 13
INS
9:34 AM
3/4/2020

2.EVENTS

AIM:

To develop a visual C#.Net Windows Application to handle mouse events

ALGORITHM:

STEP 1: Start Microsoft Visual Studio

STEP 2: Open Microsoft Visual Studio →File→New Project→C# →Windows Application.

STEP 3: Create the Form Design with 2 tables & 1 Textbox Controls.

STEP 4: Right click on the form→Properties→Click Event button.

STEP 5: Double click on Mouse Enter Event to write its code for respective course of action.

STEP 6: Similarly, double click on Mouse Leave, Mouse Move, Mouse Enter and Mouse Down Events to write code for respective course of actions.

STEP 7: Save, Build and Run the Project.

STEP 8: Stop the Windows Application.

FORM DESIGN USING FOLLOWING CONTROLS

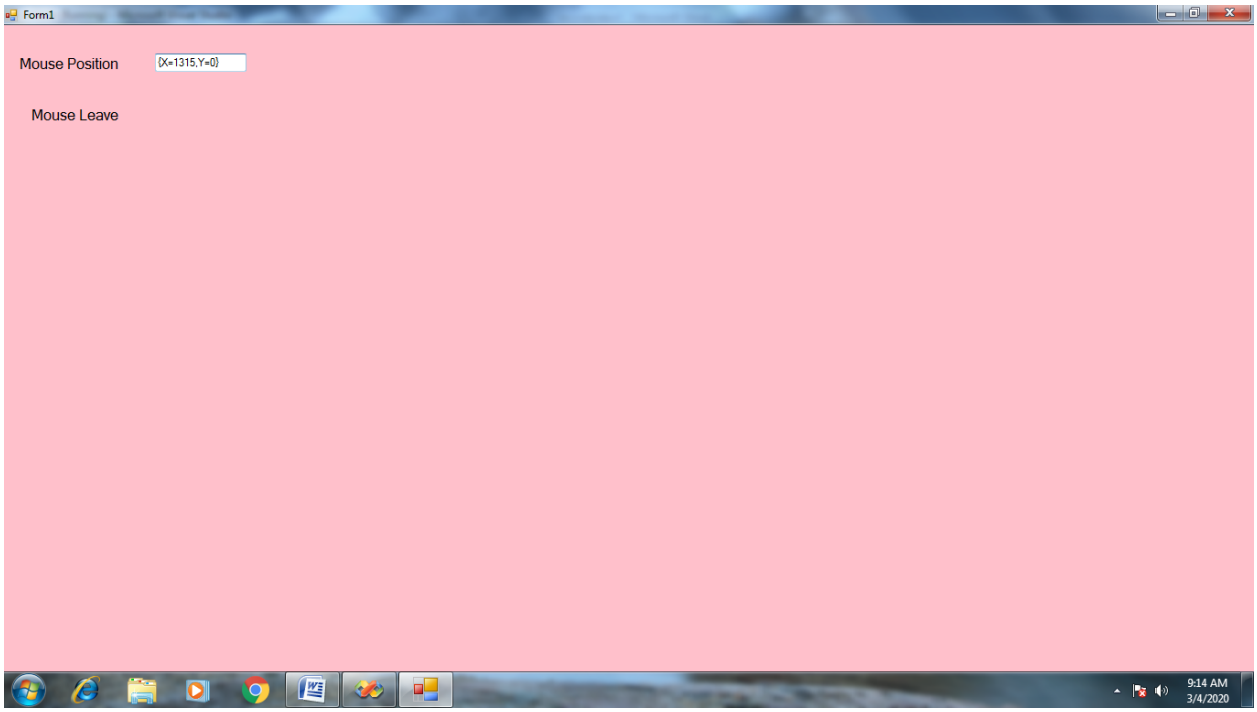
CONTROLS	PURPOSE
Form 1	To Design
Text Box1	To display the position of the cursor
Label1	Mouse Position
Label2	Mouse Leave

PROGRAM:

```
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 mouse
{
   public partial class Form1 : Form
   {
      public Form1()
      {
         InitializeComponent();
      }

      private void Form1_MouseEnter(object sender, EventArgs e)
      {
         BackColor = Color.Blue;
         label2.Text = "Mouse Enter";
      }

      private void Form1_MouseLeave(object sender, EventArgs e)
      {
         BackColor = Color.Pink;
         label2.Text = "Mouse Leave";
      }

      private void Form1_MouseMove(object sender, MouseEventArgs e)
      {
         textBox1.ForeColor = Color.Black;
         textBox1.BackColor = Color.White;
         textBox1.Text = Convert.ToString(e.Location);
         label2.Text = "Mouse Move";
      }

      private void Form1_MouseDown(object sender, MouseEventArgs e)
      {
         switch (e.Button)
         {
            case MouseButtons.Left:
```

```
                MessageBox.Show("Left Button clicked");
                break;
            case MouseButtons.Right:
                MessageBox.Show("Right Button clicked");
                break;
            default:
                break;
        }
    }

    private void Form1_Load(object sender, EventArgs e)
    {

    }
  }
}
```

OUTPUT:



3. GENERIC CONTROLS

AIM:

To develop a C#.Net Application to design GUI to get student details using some generic controls

ALGORITHM:

STEP 1: Start Microsoft Visual Studio

STEP 2: Open Microsoft Visual Studio→File→New Project→C#-->Windows Application.

STEP 3: Design the form with the below mentioned controls

CONTROLS	PURPOSE
Form1	To Design
GroupBox1	Gender
RadioButton1	Male
Radio Button2	Female
CheckBox1	Fees Paid
CheckBox2	Attendance above 75%
Label1	For Name
Label2	For Roll No
Button1	Submit
TextBox1	Student Name Entry
TextBox2	To Display the Result
ListBox 1	To Select Roll No

STEP 4: Enter the value for respective fields.

STEP 6: Submit the data by clicking Submit Button.

STEP 7: Stop the windows application

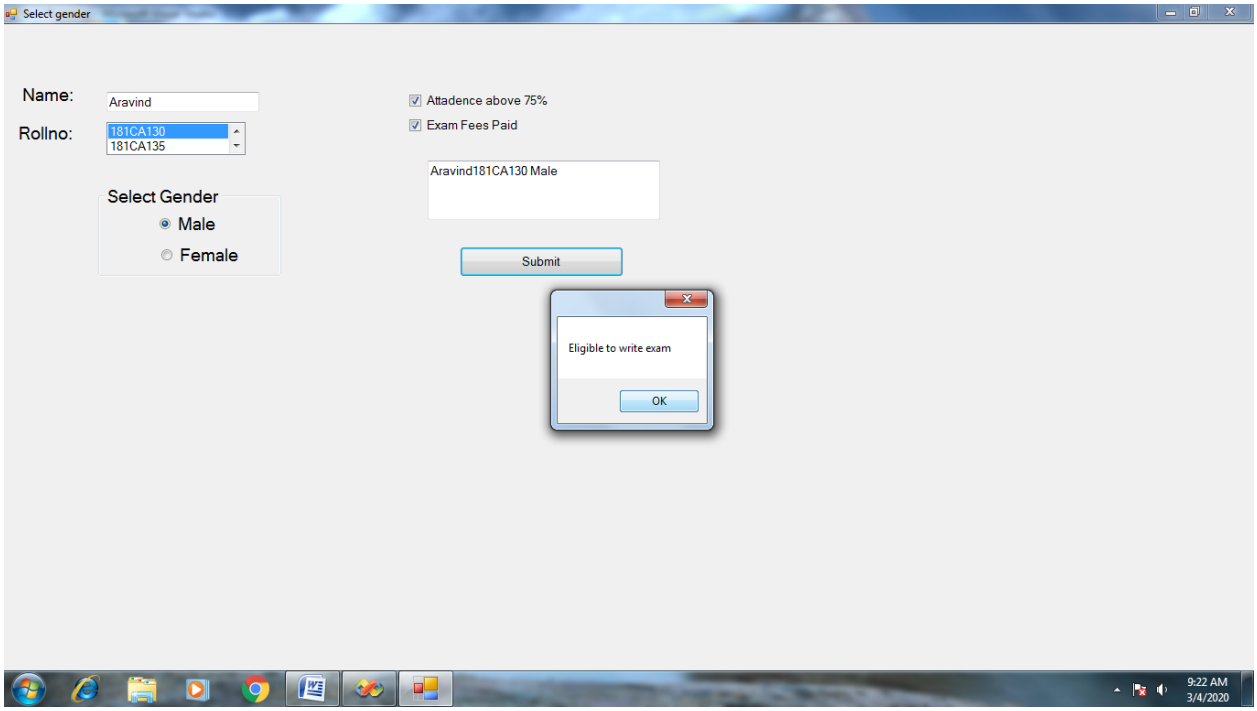
PROGRAM:

Form.cs:

```
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 ex2
{
   public partial class Form1 : Form
   {
      public Form1()
      {
         InitializeComponent();
      }

      private void button1_Click(object sender, EventArgs e)
      {
         string result = textBox1.Text + "\n" + listBox1.SelectedItem;
            if(radioButton1.Checked==true)
               result=result+"\n Male \n";
         if(radioButton2.Checked==true)
            result=result+"\n Female \n";

                  textBox2.Text=result;
                  int f = 0;
                  if (checkBox1.Checked == true && checkBox2.Checked ==
true)
                  {
                     f = 1;
                     MessageBox.Show("Eligible to write exam");
                  }
         if(checkBox1.Checked==false&&checkBox2.Checked==false)
         {
```

```
            f=1;
            MessageBox.Show("Not Eligible to write exam");
        }
        if (f == 0)
        {
            if (checkBox1.Checked == false)
                MessageBox.Show("Lack of Attadence");
            if (checkBox2.Checked == false)
                MessageBox.Show("Exam fees not paid");
        }

    }
  }
}
```

OUTPUT:



4. ADVANCED CONTROLS

AIM:

To develop a visual C#.Net windows application to design GUI to open, edit and save a files using advanced controls.

ALGORITHM:

STEP 1: Start Microsoft visual studio

STEP 2: Open Microsoft Visual Studio→File→New Project→C# →Window Application.

STEP 3: Design a form with below mentioned controls

CONTROLS	PURPOSE
TextBox1	To display the location of the file

TextBox2	To display the file content

STEP 4: Click the file menu to perform file Open & Save operations.

STEP 5: Click the format menu to perform change Font style & Color.

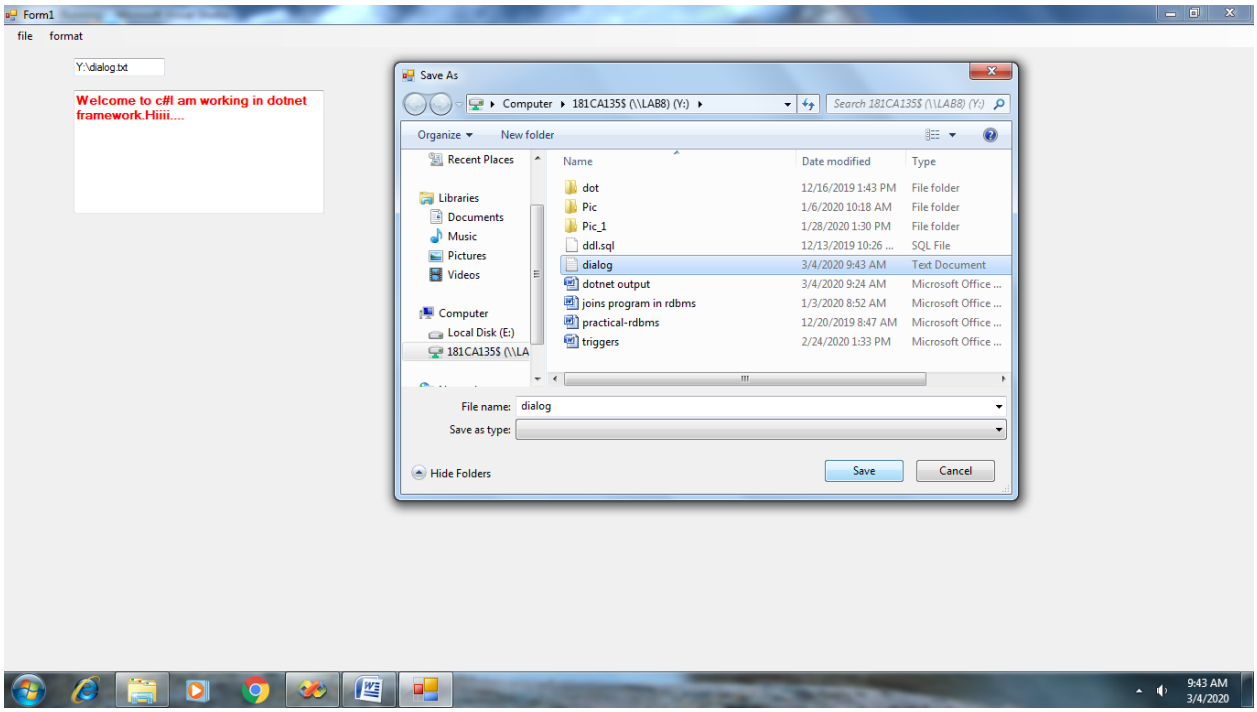
STEP 6: Stop the window Application.

PROGRAM:

```
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.IO;

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

      private void openToolStripMenuItem_Click(object sender, EventArgs e)
      {
         openFileDialog1.ShowDialog();
         textBox1.Text = openFileDialog1.FileName;
         textBox2.Text = "";
         string[] str = File.ReadAllLines(openFileDialog1.FileName);
         foreach (string x in str)
         {
            textBox2.Text = textBox2.Text + x;
         }
      }
```

```
        private void saveToolStripMenuItem_Click(object sender, EventArgs e)
        {
            saveFileDialog1.ShowDialog();
            saveFileDialog1.FileName = openFileDialog1.FileName;
            File.WriteAllText(saveFileDialog1.FileName, textBox2.Text);

        }

        private void fontToolStripMenuItem_Click(object sender, EventArgs e)
        {
            fontDialog1.ShowDialog();
            textBox2.Font = fontDialog1.Font;
        }

        private void colorToolStripMenuItem_Click(object sender, EventArgs e)
        {
            colorDialog1.ShowDialog();
            textBox2.ForeColor = colorDialog1.Color;
        }
    }
}
```

OUTPUT:



5. HOST WEBSITE

AIM: To develop a ASP.Net Web Application using Server Controls to create a Website.

ALGORITHM:

Step 1 : Start the Microsoft Visual Studio.

Step 2 : Open Microsoft Visual Studio →File→New Project→ Visual C# →ASP.Net

Step 3: At the bottom of the document window, click the **Design** tab to switch to **Design** view & Create form design using below controls.

CONTROLS	PURPOSE
Table	To display the Student data
Bulleted List	To display the Highlights
Image	To display the image
Hyperlink	Navigate to next page

Step 4: Click inside the rectangle that is outlined by a dashed line.

Step 5: Type any text inside the rectangle.

Step 6 : Add data to the table through the table properties(Row,Cells,Text).

Step 7 :Add items to Bulleted List through its properties(items,bullet style etc..).

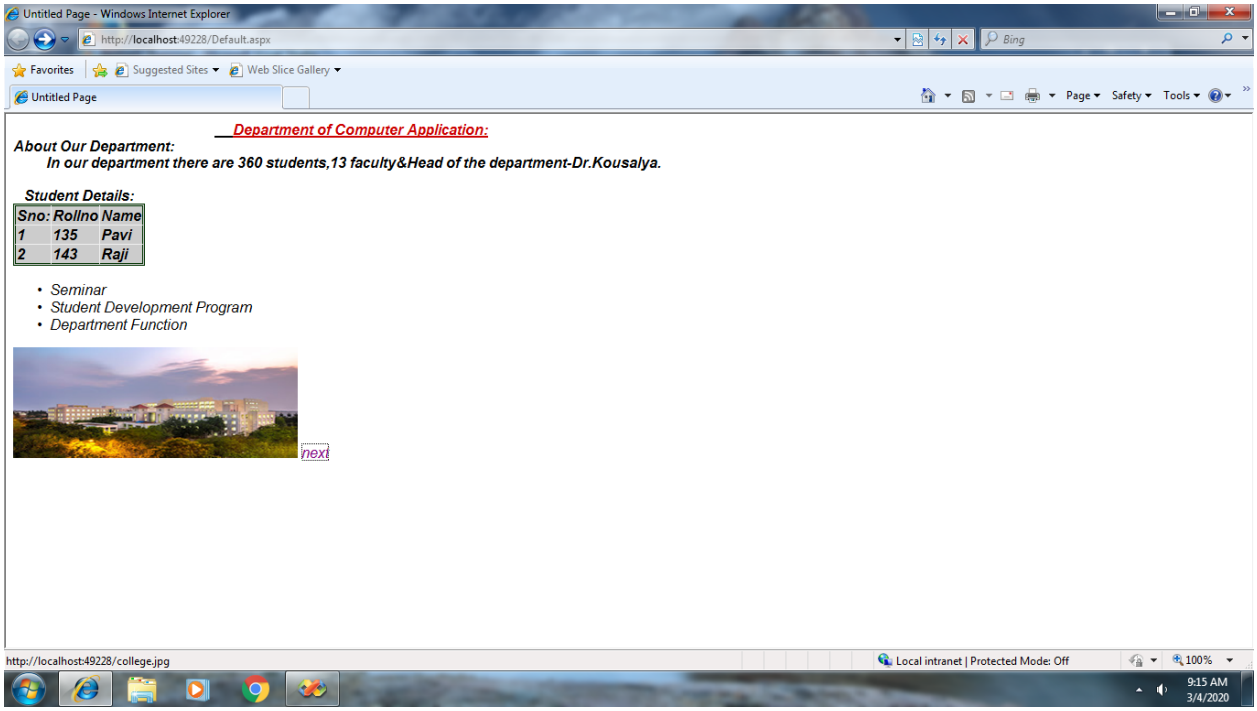
Step 8: Drag image control from the toolbox to the blank webpage and add a image to the solution explorer.

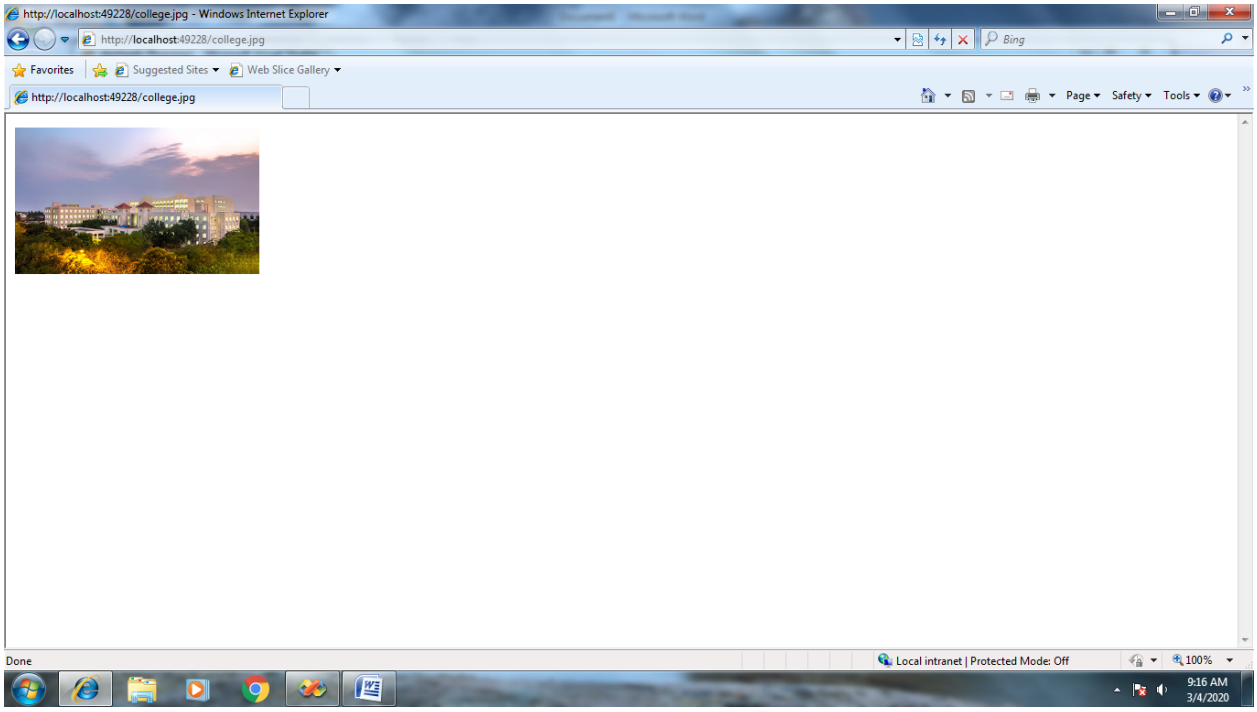
Step 9: Set Navigate Url property of Hyperlink, to navigate to the respective page.

Step 10: Save, Build and Run the web Application.

Step 11: Stop the web Application.

OUTPUT:


Untitled Page - Windows Internet Explorer
http://localhost:49228/Default.aspx
Department of Computer Application:
About Our Department:
In our department there are 360 students,13 faculty&Head of the department-Dr.Kousalya.
Student Details:
Sno: Rollno Name
1 135 Pavi
2 143 Raji
Seminar
Student Development Program
Department Function
next
http://localhost:49228/college.jpg
Local intranet | Protected Mode: Off
100%
9:15 AM
3/4/2020


http://localhost:49228/college.jpg - Windows Internet Explorer
http://localhost:49228/college.jpg
Done
Local intranet | Protected Mode: Off
100%
9:16 AM
3/4/2020

6. VALIDATION CONTROLS

AIM:

To develop a ASP.Net Web Application to design GUI to get Employee details using some generic controls and Validation controls

ALGORITHM:

STEP 1 : Start Microsoft Visual Studio

STEP 2 : Open Microsoft Visual Studio→File→New Project→C# →ASP.Net.
STEP 3: Design a form using below controls

CONTROLS	PURPOSE
RequiredField Validator	To get Name
RegularExpression Validator	For Email
Range Validator	Enter Age
Compare Validator	Enter Experience
Custom Validator	Mobile No

STEP 3: TextBox1 to get Name. RequiredFieldValidator to ensure that the Name field is not empty. It's tied to TextBox1 to force input into the TextBox1

Set its Property

ControlToValidate

ErrorMessage

STEP 4: TextBox3 to get Age RangeValidator verifies that the input value as age falls within a predefined range. Its tried to force input within range

Set its Property

ControlToValidate

ErrorMessage

MinimunValue

MaximumValue

STEP 5: If required add textbox2 to get Email Id.
RegularExpressionValidator allows validating the input text email-id by matching against pattern of Internet mail id

Set its Property

ControlToValidate

ErrorMessage

ValidationExpression

STEP 6: Textbox 4 to get experience..CompareValidator holds the ControlToValidate Id of another form of control. The value of textbook is compared with textbox 3.

Set its Property

ControlToValidate

ErrorMessage

Control To Compare

Operator

STEP 7: TextBox5 to get Phone Number. CustomValidator to ensure that the Phone Number ia a ten digit number. It's tied to serverside.

Set its Property

ControlToValidate

ErrorMessage

EnableClientScript as False

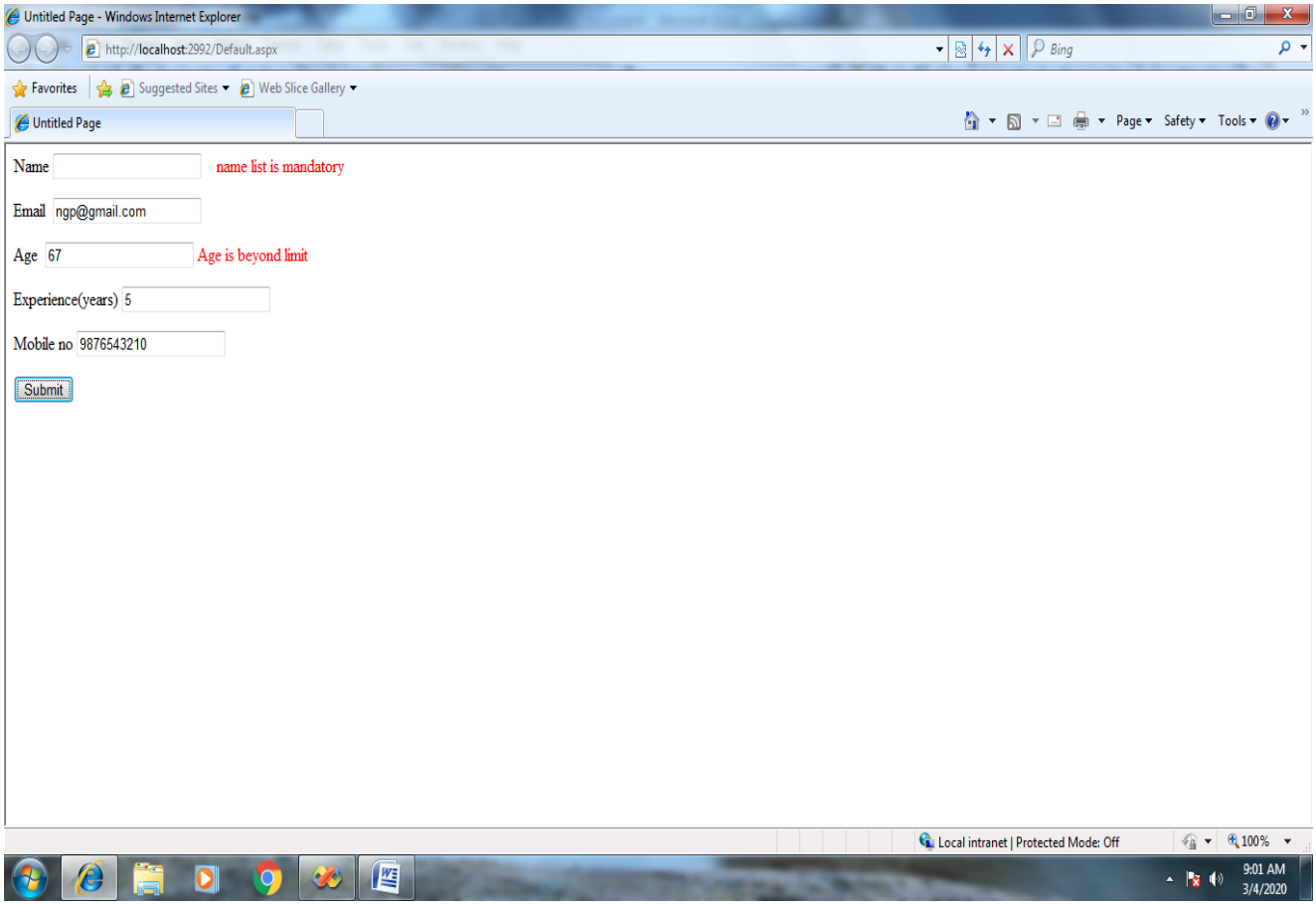
ValidateEmptyText as False

STEP 8: Save, Build and Run.
STEP 9: Stop the web Application.

PROGRAM:

```
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Xml.Linq;

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

      }

      protected void CustomValidator1_ServerValidate(object source,
ServerValidateEventArgs args)
      {
         if (args.Value == "")
            args.IsValid = false;
         else
         {
            if (args.Value.Length < 10)
               args.IsValid = false;
            else
               args.IsValid = true;
         }
      }
      }
   }
```

OUTPUT:



12. DATABASE CONNECTIVITY

AIM:

To develop a ASP.Net Web Application to create a Frontend Form with Data Base Connectivity.

ALGORITHM:

Step 1 : Start Microsoft Visual Studio.

Step 2 : Open Microsoft Visual Studio→File→New Project→ C# → ASP.Net.

Step 3:click Ctrl+shift+A→Sql Datasource.

Step 4: Select View→Server Explorer→Table→Add new Table.

Step 5: Add the data into the table and save the table.

Step 6: Right click on the table name ,Select Show table data.

Step 7: At the bottom of the document window, click the **Design** tab to switch to **Design** view. Form a design using below controls

CONTROLS	PURPOSE
TextBox1	To Enter no
TextBox2	To Enter a name
TextBox3	To Enter Salary
Button1	View
Button2	Insert
Button3	Delete
Button4	Clear
Label	To display the Results
Sqldatasource	Configuration

Step 5: Click on Configure Datasource→database.mdf→Next→Connection String→Next→Test Query→Finish.

Step 6 : Double click on 4 buttons to write its respective code.

Step 7: Save,Build and Run.

Step 9: Stop the Web Application.

PROGRAM :

```
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Xml.Linq;
using System.Data.SqlClient;

namespace WebApplication1
{
   public partial class WebForm1 : System.Web.UI.Page
   {
```

```
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        SqlConnection con = new
SqlConnection(ConfigurationManager.ConnectionStrings["naveen"].Conne
ctionString);
        con.Open();
        String s = "select * from employee where eno='" + TextBox1.Text +
"'";
        SqlCommand cmd = new SqlCommand(s, con);
        SqlDataReader dr;
        dr = cmd.ExecuteReader();
        while (dr.Read())
        {
            TextBox2.Text = dr.GetValue(1).ToString();
            TextBox3.Text = dr.GetValue(2).ToString();
        }
        con.Close();
    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        SqlConnection con = new
SqlConnection(ConfigurationManager.ConnectionStrings["naveen"].Conne
ctionString);
        String s = "insert into employee values('" + TextBox1.Text + "', '" +
TextBox2.Text + "','" + TextBox3.Text + "')";
        con.Open();
        SqlCommand cmd = new SqlCommand(s, con);
        cmd.ExecuteNonQuery();
        Label1.Text = "1 Row inserted....! ";
    }

    protected void Button3_Click(object sender, EventArgs e)
    {
        SqlDataReader dr;
        SqlConnection con = new
SqlConnection(ConfigurationManager.ConnectionStrings["naveen"].Conne
ctionString);
```

```
            con.Open();
            String s = "delete from employee where eno='" + TextBox1.Text + "'";
            SqlCommand cmd = new SqlCommand(s, con);
            dr = cmd.ExecuteReader();
            Label1.Text = "1 Row deleted....! ";
            con.Close();

        }

        protected void Button4_Click(object sender, EventArgs e)
        {

            TextBox1.Text = "";
            TextBox2.Text = "";
            TextBox3.Text = "";

        }
    }
}
```

OUTPUT :