1.Write a console application that obtains two int values from the user and displays the a. ADD b. SUBTRACT c. MULTIPLY d. DIVISION e. MOD   Menu program.

With Function using

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

namespace FirstConsoleApp
{
   class Program
   {
      class Calculate
      {
         public static int Addition(int a, int b)
         {
            int c = a + b;
return c;
         }
         public static int Subtraction(int a, int b)
         {
            int c = a - b;
return c;
         }
         public static int Multiplication(int a, int b)
         {
            int c = a * b;
return c;
         }
         public static int Division(int a, int b)
         {
            int c = a / b;
return c;
```

```csharp
        }
        public static int Modulo(int a, int b)
        {
            int c = a % b;
return c;
        }
    }

    static void Main(String[] args)
    {
        int ch, r,c,d;
        String a, b;

        Console.WriteLine("\nEnter First Value : ");
a = Console.ReadLine();          c =
Convert.ToInt32(a);

        Console.WriteLine("\nEnter Second Value : ");
b = Console.ReadLine();          d =
Convert.ToInt32(b);

do
{
        Console.WriteLine("\n1-Addition\n2-Subtraction\n3-
Multiplication\n4Division\n5-Modulo\n6-Exit.");
        Console.WriteLine("\nEnter Your Choise : ");
String choise = Console.ReadLine();              ch =
Convert.ToInt32(choise);

        switch (ch)
        {
case 1:
            Console.WriteLine("Addition = " + Calculate.Addition(c,d));
break;           case 2:
            Console.WriteLine("Subtraction = " + Calculate.Subtraction(c, d));
break;           case 3:
```

```
                Console.WriteLine("Multiplication = " + Calculate.Multiplication(c, d));
break;             case 4:
                Console.WriteLine("Division = " + Calculate.Division(c, d));
break;             case 5:
                Console.WriteLine("Modulo = " + Calculate.Modulo(c, d));
break;             case 6:
                ch = 0;
break;                default:
                Console.WriteLine("Invalid Choise.");
break;
          }

      } while (ch != 0);
    }
  }
}
```

Output :

```
Enter First Value :
5

Enter Second Value :
2

1-Addition
2-Subtraction
3-Multiplication
4-Division
5-Modulo
6-Exit.

Enter Your Choise :
1
Addition = 7

1-Addition
2-Subtraction
3-Multiplication
4-Division
5-Modulo
6-Exit.

Enter Your Choise :
2
Subtraction = 3

1-Addition
2-Subtraction
3-Multiplication
4-Division
5-Modulo
6-Exit.
```

```
1-Addition
2-Subtraction
3-Multiplication
4-Division
5-Modulo
6-Exit.

Enter Your Choise :
3
Multiplication = 10

1-Addition
2-Subtraction
3-Multiplication
4-Division
5-Modulo
6-Exit.

Enter Your Choise :
4
Division = 2

1-Addition
2-Subtraction
3-Multiplication
4-Division
5-Modulo
6-Exit.

Enter Your Choise :
5
Modulo = 1
```

Without Function

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

namespace ConsoleAppDemo
{
    class Program
```

```csharp
  {
     static void Main(string[] args)
     {
        int a, b, opt;

do
{
            Console.Write("\nHere are the options :\n");
            Console.Write("1-Addition.\n2-Substraction.\n3-Multiplication.\n4-
Division.\n5-Exit.\n");
            Console.Write("\nInput your choice :");
opt = Convert.ToInt32(Console.ReadLine());

            Console.Write("Enter the number :");
a = Convert.ToInt32(Console.ReadLine());

            Console.Write("Enter the number :");
b = Convert.ToInt32(Console.ReadLine());

        switch (opt)
        {
case 1:
            Console.WriteLine("\n{0} + {1} = {2}", a, b, a+b);
break;          case 2:
            Console.WriteLine("\n{0} - {1} = {2}", a, b, a - b);
break;          case 3:
            Console.WriteLine("\n{0} * {1} = {2}", a, b, a * b);
            break;
case 4:
            Console.WriteLine("\n{0} / {1} = {2}", a, b, a / b);
break;          case 5:                    break;
default:
            Console.Write("Input correct option\n");
break;
        }
     } while (b <= 5)
```

```
      Console.ReadKey();
    }
  }
}
```

Output :

```
Here are the options :
1-Addition.
2-Substraction.
3-Multiplication.
4-Division.
5-Exit.

Input your choice :1
Enter the number :2
Enter the number :2

2 + 2 = 4

Here are the options :
1-Addition.
2-Substraction.
3-Multiplication.
4-Division.
5-Exit.

Input your choice :2
Enter the number :3
Enter the number :3

3 - 3 = 0
```

```
Here are the options :
1-Addition.
2-Substraction.
3-Multiplication.
4-Division.
5-Exit.

Input your choice :3
Enter the number :5
Enter the number :4

5 * 4 = 20

Here are the options :
1-Addition.
2-Substraction.
3-Multiplication.
4-Division.
5-Exit.

Input your choice :4
Enter the number :20
Enter the number :3

20 / 3 = 6
```

2. Write programs using conditional statements and loops:
I) Generate Fibonacci series. II) Generate various patterns
(triangles, diamond and other   patterns) with numbers. III) Test for
prime numbers.

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

namespace program2
```

```csharp
{
   class Program
   {
     static void Main(string[] args)
     {
        int num1 = 0, num2 = 1, num3, i, x, y, z , number, opt, j, r = 8, startNumber =
1;
do
{
          Console.Write("\nHere are the options :\n");
          Console.Write("1-Fibonacci series.\n2-Triangles.\n3-Diamond.\n4-prime
numbers.\n5-Exit.\n");
          Console.Write("\nInput your choice :");
opt = Convert.ToInt32(Console.ReadLine());

          switch (opt)
          {
case 1:
               Console.Write("Enter the number element ");
number = int.Parse(Console.ReadLine());
Console.Write(num1 + "" + num2 + "");

               for (i = 2; i < number; ++i)
{
                  num3 = num1 + num2;
Console.Write(num3 + "");
num1 = num2;                        num2 =
num3;
               }
break;              case 2:
for (x = 1; x <= r; x++)
               {
                  for (y = x; y < r; y++)
                  {
                     Console.Write(" ");
                  }
                  for (z = 1; z < (x * 2); z++)
```

```
                    {
                       Console.Write("*");
                    }
                    Console.WriteLine();
                 }
break;
              case
3:
                 Console.WriteLine("Diamond");
for (i = 0; i <= r; i++)
                 {                        for (j = 1;
j <= r - i; j++)
Console.Write(" ");                        for (j =
1; j <= 2 * i - 1; j++)
                    Console.Write("1");
                  Console.Write("\n");
                 }

                 for (i = r - 1; i >= 1; i--)
                 {                        for (j
= 1; j <= r - i; j++)
Console.Write(" ");                    for
(j = 1; j <= 2 * i - 1; j++)
                    Console.Write("1");
                  Console.Write("\n");
                 }
break;
              case
4:
                 ;
              // Console.Write("Enter The Start Number: ");
              // int startNumber = int.Parse(Console.ReadLine());
              Console.Write("Enter the End Number : ");
              int endNumber = Convert.ToInt32(Console.ReadLine());
              Console.WriteLine($"The Prime Numbers between {startNumber}
and {endNumber} are : ");
```

```csharp
                for (i = startNumber; i <= endNumber; i++)
                {
                    int counter = 0;

                    for (j = 2; j <= i / 2; j++)
                    {
                        if (i % j == 0)
                        {
                            counter++;
break;
                        }
                    }

                    if (counter == 0 && i != 1)
                    {
                        Console.Write("{0} ", i);
                    }
}
break;
            case
5:
                Console.Write("Your Exit the menu\n");
break;

default:
                Console.Write("Invalid choice\n");
break;
        }
      }
      while (opt <= 5);

      Console.ReadLine();
    }
  }
}
```

Output :

3. Write a console application to add two matrices.

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

namespace SecondConsoleApp
{
    class matrix
    {
        static void Main(string[] args)
```

```
        {              int r = 3;
int c = 3;            int[,] a=
new int[r,c];             int[,] b=
new int[r,c];             int[,] d =
new int[r,c];             string
x,y;          int n,m;


        Console.WriteLine("Enter Matrix A Value : ");
        for(int i=0;i<r;i++)
        {
           for(int j=0;j<c;j++)
           {
              x = Console.ReadLine();
              n = Convert.ToInt32(x);
a[i,j] = n;
           }
        }


        Console.WriteLine("Enter Matrix B Value : ");
        for (int i = 0; i < r; i++)
        {
           for (int j = 0; j < c; j++)
           {
              y = Console.ReadLine();
              m = Convert.ToInt32(y);
              b[i,j] = m;
           }
        }


        Console.WriteLine("Addition");
for (int i = 0; i < r; i++)
        {
           for (int j = 0; j < c; j++)
           {                  d[i,j] =
a[i,j] + b[i,j];
              Console.Write(d[i,j]+"\t");
```
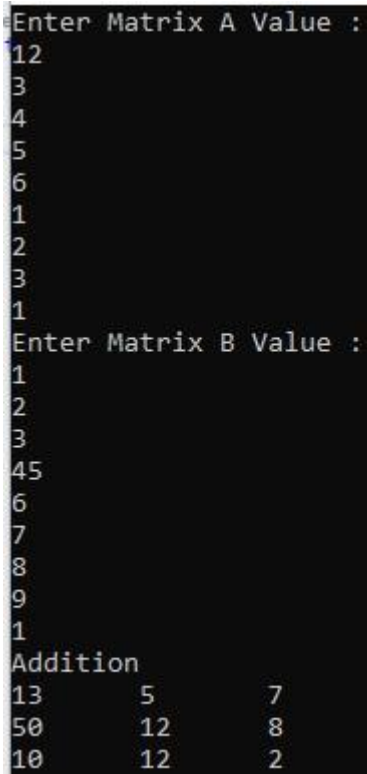
```
            }
         Console.WriteLine();
      }
      Console.ReadKey();
   }
  }
}
```

Output :

```
Enter Matrix A Value :
12
3
4
5
6
1
2
3
1
Enter Matrix B Value :
1
2
3
45
6
7
8
9
1
Addition
13        5        7
50        12       8
10        12       2
```

4 .Write code to get a calculator to validate and add numbers.

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

namespace SecondConsoleApp
{
    class InVaildInput : Exception
    {
        public override string Message
        {
get
            {
                return "Custom Exception : Only Allow Number Format Input.";
            }
        }
    }
    class Validation
    {
        static void Main(string[] args)
        {
            int ch, r, c, d;
            String a, b;

            int numericValueA;
int numericValueB;
```

```
        Console.WriteLine("\nEnter First Value : ");
a = Console.ReadLine();
        bool isNumberA = int.TryParse(a, out numericValueA);


        Console.WriteLine("\nEnter Second Value : ");
b = Console.ReadLine();
        bool isNumberB = int.TryParse(b, out numericValueB);


try
        {
            if ((isNumberA == true) && (isNumberB == true))
            {
c = numericValueA;
d = numericValueB;


do
{
                Console.WriteLine("\n1-Addition\n2-Subtraction\n3-
Multiplication\n4Division\n5-Modulo\n6-Exit.");
                Console.WriteLine("\nEnter Your Choice  : ");
                String choice = Console.ReadLine();
ch = Convert.ToInt32(choice);

                switch (ch)
                {
case 1:
                    r = c + d;
                    Console.WriteLine("Addition = " + r);
break;           case 2:
                    r = c - d;
                    Console.WriteLine("Subtraction = " + r);
break;           case 3:
                    r = c * d;
                    Console.WriteLine("Multiplication = " + r);
break;           case 4:
                    r = c / d;
```
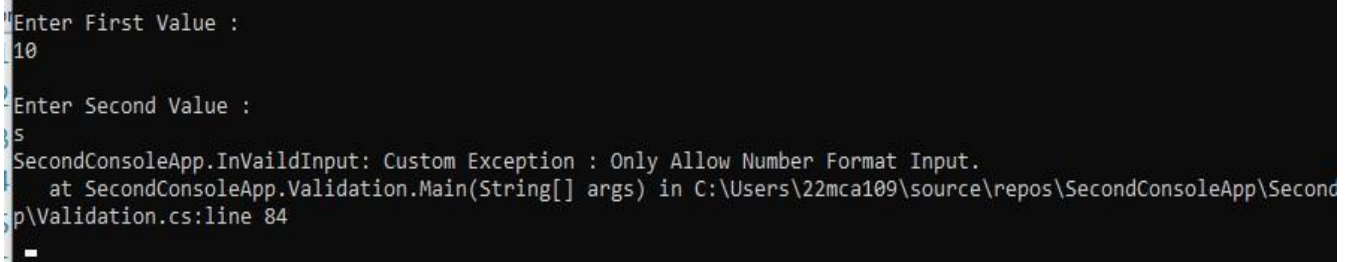
```
                        Console.WriteLine("Division = " + r);
break;                       case 5:                          r =
c % d;                        Console.WriteLine("Modulo
= " + r);                          break;
case 6:                          ch = 0;
break;                    default:
                     Console.WriteLine("Invalid Choise.");
break;

                }


            } while (ch != 0);
        }
else
        {
            throw new InVaildInput();
            //Console.WriteLine("Not Valid.");
        }
      }
      catch(Exception e)
      {
          Console.WriteLine(e);
      }

      Console.ReadKey();
      Console.ReadKey();
    }
  } }
```

Output :

```
Enter First Value :
10

Enter Second Value :
s
SecondConsoleApp.InVaildInput: Custom Exception : Only Allow Number Format Input.
   at SecondConsoleApp.Validation.Main(String[] args) in C:\Users\22mca109\source\repos\SecondConsoleApp\Second
p\Validation.cs:line 84
```

5 .Write a program to declare class "Distance" have data members dist1, dist2, dist3. Initialize the two data members using constructor and store their addition in the third data member using function and display addition.

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

namespace SecondConsoleApp
{
    class DistanceProg
    {
        static void Main(string[] args)
        {
            Distance d = new Distance(10,20);
d.display();

            Console.ReadKey();
        }
    }
    class Distance
    {
        int dist1, dist2, dist3;
        public Distance(int dist1, int dist2)
        {
            this.dist1 = dist1;
this.dist2 = dist2;
        }
        public void display()
        {
            dist3 = dist1 + dist2;
            Console.WriteLine("Addition of dist1 & dist2 : " + dist3);
        }
```

```
    }
}
```

Output :

```
Addition of dist1 & dist2 : 30
```

6. Define a class "salary" which will contain member variables Basic, TA, DA, HRA. Write a program using Constructor with default values for DA and HRA and calculate the salary of the employee.

using System;

```csharp
using System.Collections.Generic;
using System.Linq; using
System.Text;
using System.Threading.Tasks;

namespace SecondConsoleApp
{
    class SalaryProg
    {
        class Salary
        {
            int Basic = 20000, TA = 5000;
            int DA, HRA;
            public Salary()
            {
                DA = 10000;
                HRA = 5000;
            }
            public int CalculateSalary()
            {
                return Basic + TA + DA + HRA;
            }

        }
        public static void Main(string[] args)
        {
            Salary s = new Salary();
            Console.WriteLine("Salary : "+s.CalculateSalary());

            Console.ReadKey();

        }
    }
}
```

Output :

```
Salary : 40000
```

7. Demonstrate Event Handling .

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

```csharp
namespace WindowsForms
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void textBox2_TextChanged(object sender, EventArgs e)
        {

            label2.Text = txtname.Text;
        }

        private void btnSubmit_Click(object sender, EventArgs e)
        {
            string radio;
string check;
            if(gender1.Checked)
            {
                radio = "Male Select";
            }
            else if(gender2.Checked)
            {
                radio = "Female Select";
            }
else
            {
                radio = "No One Select";
            }

            if(checkBox1.Checked)
            {
                check = "Java";
```

```
        }
        else if (checkBox2.Checked)
        {
            check = ".Net";
        }
else
        {
            check = "No One Select";
        }
        MessageBox.Show("RadioBox value : "+radio+"  CheckBox Value :
"+check);
    }


    RadioButton rb = new RadioButton();
    private void addBtn_Click(object sender, EventArgs e)
    {
        AddNewBtn();
    }
     private void AddNewBtn()
    {
        rb.Text = "New Btn";
        rb.Name = "newRadio";

        GrpBox.Controls.Add(rb);
    }
    private void removeBtn_Click(object sender, EventArgs e)
    {

        GrpBox.Controls.Remove(rb);
    }

    private void btn2_Click(object sender, EventArgs e)
    {
        txt2.Text = "Mouse Click Event Call";
    }
```

```csharp
private void btn2_MouseDown(object sender, MouseEventArgs e)
{
    txt2.Text = "Mouse Down Event Call";
}


private void btn2_MouseEnter(object sender, EventArgs e)
{
    txt2.Text = "Mouse Enter Event Call";
}


private void btn2_MouseHover(object sender, EventArgs e)
{
    txt2.Text = "Mouse Hover Event Call";
}


private void btn2_MouseLeave(object sender, EventArgs e)
{
    txt2.Text = "Mouse Leave Event Call";
}


private void btn2_MouseMove(object sender, MouseEventArgs e)
{
    txt2.Text = "Mouse Move Event Call";
}


private void btn2_MouseUp(object sender, MouseEventArgs e)
{
    txt2.Text = "Mouse Up Event Call";
}


private void txt2_KeyDown(object sender, KeyEventArgs e)
{
    label3.Text = "KeyDown Call";
    label3.Text = $"{e.Modifiers}"; //Display Alt,Ctrl,Shift
}


private void txt2_KeyPress(object sender, KeyPressEventArgs e)
```

```
        {
            label3.Text = "KeyPress Call";
            label3.Text = $"{e.KeyChar}";   //Display Key Name


        }

        private void txt2_KeyUp(object sender, KeyEventArgs e)
        {


            label3.Text = $"{e.KeyCode}";   // Display Key name
label3.Text = $"{e.KeyData}";   // Display Alphabate           label3.Text
= $"{e.KeyValue}";  // Display ASSIC Value


        }

        private void btnList_Click(object sender, EventArgs e)
        {
            ArrayList a = new ArrayList();
a.Add("Kiwi");
            a.Add("Water Malon");
            a.Add("Graps");

            listBox1.DataSource = a;
        }
    }
}
```

Output :

Enter Name | hello

hello

groupBox1

○ Male   ☐ Java

○ Female   ☐ .Net

Submit

Add   Remove

Mouse Leave Event C

Submit

Show Message

8. Demonstrate Delegates

Single Delegates using
System;
using System.Collections.Generic;
using System.Linq; using

```csharp
System.Text; using
System.Threading.Tasks;

namespace SecondConsoleApp
{
    class Delegates
    {
        public delegate int delmethod(int a,int b);
public delegate void delmethod2();
        public class A
        {
            public static void print()
            {
                Console.WriteLine("Print Method Called.");
            }

            public static int display(int a,int b)
            {
                //Console.WriteLine("A = "+a+"\nB = "+b);
                return a + b;
            }

            public void show()
            {
                Console.WriteLine("Show Method Called.");
            }
        }
        static void Main(string[] args)
        {
            // Without Parameter
            delmethod2 d = A.print;
            d();

            // With Parameter
delmethod d1 = A.display;          int
c = d1(10,15);
            Console.WriteLine("Sum is = "+c);
```

```
        // Creating Object of Class A
A a = new A();
        d = a.show;
d();

        Console.ReadLine();
    }
  }
}
```

Output :


```
Print Method Called.
Sum is = 25
Show Method Called.
```

Multi Delegates

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

namespace SecondConsoleApp
{
   class MultiDelegates
   {
     public delegate void MDelegate();
public class DM
     {
        public static void display()
        {
           Console.WriteLine("Display method Call.");
        }
        public static void print()
        {
```
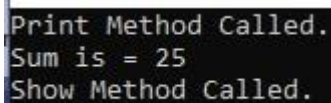
```
            Console.WriteLine("Print method Call.");
        }
    }
    static void Main(string[] args)
    {
        MDelegate d1 = new MDelegate(DM.display);
        MDelegate d2 = new MDelegate(DM.print);
        MDelegate d3 = d1 + d2;
        MDelegate d4 = d2 + d1;
        MDelegate d5 = d3 - d2;
        MDelegate d6 = d2 - d3;
        MDelegate d7 = d5 - d6;
        MDelegate d8 = d6 - d5;

        Console.WriteLine("D3 Call.");
d3();
        Console.WriteLine("D4 Call.");
d4();
        Console.WriteLine("D5 Call.");
d5();
        Console.WriteLine("D6 Call.");
d6();
        Console.WriteLine("D7 Call.");
d7();
        Console.WriteLine("D8 Call.");
d8();

        Console.ReadKey();
    }
  }
}
```

Output :

```
D3 Call.
Display method Call.
Print method Call.
D4 Call.
Print method Call.
Display method Call.
D5 Call.
Display method Call.
D6 Call.
Print method Call.
D7 Call.
Display method Call.
D8 Call.
Print method Call.
```

9. Demonstrate Exception Handling

Built-In Exception

using System;
using System.Collections.Generic;
using System.Linq; using
System.Text;
using System.Threading.Tasks;

```
namespace SecondConsoleApp
{
   class BuiltInValidation
   {
      static void Main(string[] args)
      {
try
{
          int a = 10;
int b = 0;              int
div = a / b;
      }
      catch(Exception e)
      {
         Console.WriteLine("Exception Raise : " + e);
      }
      Console.ReadKey();
   }
 }
}
```

Output :

```
Exception Raise : System.DivideByZeroException: Attempted to divide by zero.
   at SecondConsoleApp.BuiltInValidation.Main(String[] args) in C:\Users\22mca109\source\repos\SecondConsoleApp\SecondCo
nsoleApp\BuiltInValidation.cs:line 17
```

Custom Exception

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

namespace SecondConsoleApp
{
```

```
class OddException : Exception
{
    public override string Message
    {
get
        {
            return "Custom Exception : Odd Number Not Allow.";
        }
    }
}
class CustomValidation
{
    static void Main(string[] args)
    {
int n;
try
        {
            Console.WriteLine("Enter Number : ");
n = int.Parse(Console.ReadLine());
            if (n % 2 > 0)
            {
                throw new OddException();
            }
        }
        catch (Exception e)
        {
            Console.WriteLine(e);
        }
        Console.ReadKey();
    }
}
}
```

Output :

```
Enter Number :
21
SecondConsoleApp.OddException: Custom Exception : Odd Number Not Allow.
   at SecondConsoleApp.CustomValidation.Main(String[] args) in C:\Users\22mca109\source\repos\SecondConsoleApp\SecondCon
soleApp\CustomValidation.cs:line 30
```

10. Demonstrate Inheritance and Polymorphism.

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

namespace SecondConsoleApp
{
   class Inheritance
   {
class A
```

```csharp
        {          int x;
public A(int x)
        {
            this.x = x;
        }
        public void display()
        {
            Console.WriteLine("Class A Display Method : " + x);
        }
    }
    class B : A
    {
        int y;
        public B(int x, int y) : base(x)
        {
            this.y = y;
        }
        public void displayB()
        {
            base.display();
            Console.WriteLine("Class B Display Method : " + y);
        }
    }
    class C : A
    {
        int y;
        public C(int x,int y) : base(x)
        {
            this.y = y;
        }
        public void displayC()
        {
            base.display();

            Console.WriteLine("Class C Display Method : " + y);
        }
```

```
        }

     class D : B
     {
        int z;
        public D(int x,int y,int z) : base(x,y)
        {
           this.z = z;
        }
        public void displayD()
        {
           Console.WriteLine("Class D Display Method : " + z);
base.display();
        }
     }
     public static void Main(string[] args)
     {
A a = new A(10);
B b = new B(11,12);
C c = new C(21,22);          D d = new D(31,32,33);          a.display();
  Console.WriteLine();          b.displayB();          Console.WriteLine();
  c.displayC();          Console.WriteLine();          d.displayD();

        Console.ReadKey();
        Console.ReadKey();
     }
  }
}
```

Output :

```
Class A Display Method : 10

Class A Display Method : 11
Class B Display Method : 12

Class A Display Method : 21
Class C Display Method : 22

Class D Display Method : 33
Class A Display Method : 31
```

Polymorphism : using System;
using System.Collections.Generic;
using   System.Linq;   using
System.Text;
using System.Threading.Tasks;

namespace SecondConsoleApp
{
   class Polymorphism
   {
      public class TestOverloading
      {
         public void Add(string a1, string a2)
         {
            Console.WriteLine("Adding Two String :" + a1 + a2);
         }
         public void Add(int a1, int a2)
         {
            Console.WriteLine("Adding Two Integer :" + a1 + a2);
         }
      }
      static void Main(string[] args)
      {
         TestOverloading obj = new TestOverloading();
         obj.Add("Deep ", "Patel");
obj.Add(5, 15);   Console.ReadLine();

```
      }
   }
}
```

Output :

```
Adding Two String :Deep Patel
Adding Two Integer :515
```

11. Demonstrate Windows form with different Controls like Layout, Labels, TextBoxes and Buttons, GroupBoxes and Panels, CheckBoxes and RadioButtons, ToolTips, Mouse-Event Handling, Keyboard-Event Handling. Menus, MonthCalendar Control, DateTimePicker Control, LinkLabel Control, ListBox Control, CheckedListBoxControl, ComboBox Control, TreeView Control, ListView Control, TabControl Control and Multiple Document Interface (MDI) Windows.

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

```csharp
using System.Windows.Forms;

namespace WindowsForms
{
    public partial class Form4 : Form
    {
        public Form4()
        {
            InitializeComponent();
        }


        private void Form4_Load(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
            string gender;
          // string name = textBox1.Text;
            if (radioButton1.Checked)
            {
                gender = radioButton1.Text;
            }
else
            {
                gender = radioButton2.Text;

            }

            string dob = dateTimePicker1.Text;

            string city = comboBox1.Text;

            string technology = treeView1.SelectedNode.Text;
```

```csharp
System.Text.StringBuilder sb = new System.Text.StringBuilder();
System.Text.StringBuilder exam = new System.Text.StringBuilder();

for (int i = 0; i < txthobby.Items.Count; i++)
{
    if (txthobby.GetItemChecked(i))
    {
        sb.Append(txthobby.Items[i].ToString());
        sb.Append(", ");
    }
}

for (int i = 0; i < listView2.Items.Count; i++)
{
    if (listView2.Items[i].Checked)
    {
        exam.Append(listView2.Items[i].Text);
        exam.Append(", ");
    }
}

DataTable tblCustomSource = new DataTable();
tblCustomSource.Columns.Add("Name", typeof(string));
tblCustomSource.Columns.Add("Gender", typeof(string));
tblCustomSource.Columns.Add("Dob", typeof(string));
tblCustomSource.Columns.Add("Hobby", typeof(string));
tblCustomSource.Columns.Add("DOB", typeof(string));
tblCustomSource.Columns.Add("City", typeof(string));
tblCustomSource.Columns.Add("Technology", typeof(string));

tblCustomSource.Rows.Add(textBox1.Text, gender, sb,
dateTimePicker1.Text, comboBox1.Text, treeView1.SelectedNode.Text, exam);

bindData.DataSource = tblCustomSource;
    }
  }
```

}
# Output :

12 - Demonstrate the use of ADO.NET Object model.

Master Page

```
<%@ Master Language="C#" AutoEventWireup="true"
CodeBehind="SampleMasterPage.master.cs"
Inherits="WebApplication.SampleMasterPage" %>

<!DOCTYPE html>
<html>
<head runat="server">
    <title></title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-
alpha1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
GLhlTQ8iRABdZLl6O3oVMWSktQOp6b7In1Zl3/Jr59b6EGGoI1aFkw7cmDA6j6gD"
crossorigin="anonymous" />
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0alpha1/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
w76AqPfDkMBDXo30jS1Sgez6pr3x5MlQ1ZAGC+nuZB+EYdgRZgiwxhTBTkF7CXvN"
crossorigin="anonymous"></script>

    <asp:ContentPlaceHolder ID="head" runat="server">
    </asp:ContentPlaceHolder>
    <style type="text/css">
.auto-style1 {          height:
125px;          text-align:
center;          font-size: xx-
large;
    }
    .auto-style2 {
height: 99px;          font-size:
xx-large;
        text-align: center;
    }
    .auto-style3 {
        height: 425px;
    }
    .auto-style4 {
height: 425px;          width:
203px;          font-size: xx-
large;          text-align:
center;
    }
    </style>
</head>
<body style="height: 193px">
    <form id="form1" runat="server">

        <table border="1" style="width:100%;">
            <tr>
```

```
          <td class="auto-style1" colspan="2"><strong>My Website<br />
            </strong>
            <asp:Menu ID="Menu1" runat="server" Orientation="Horizontal">
              <Items>
                  <asp:MenuItem NavigateUrl="~/Home.aspx" Text="Home"
Value="Home"></asp:MenuItem>
                  <asp:MenuItem NavigateUrl="~/AboutUs.aspx" Text="AboutUs"
Value="AboutUs"></asp:MenuItem>
              </Items>
            </asp:Menu>
            <asp:Button ID="btnLogout" runat="server" OnClick="btnLogout_Click" Text="Logout" />
          </td>
      </tr>
<tr>
          <td class="auto-style4"><strong>Menu</strong></td>
          <td class="auto-style3">
              <asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">
</asp:ContentPlaceHolder>
          </td>
      </tr>
<tr>
          <td class="auto-style2" colspan="2"><strong>Footer</strong></td>
      </tr>
    </table>
  </form>
</body>
</html>
```

Master.cs using
System;
using System.Collections.Generic; using
System.Linq; using System.Web; using
System.Web.UI; using
System.Web.UI.WebControls; namespace
WebApplication
{
  public partial class SampleMasterPage : System.Web.UI.MasterPage
  {
    protected void Page_Load(object sender, EventArgs e)
    {
    }
    protected void btnLogout_Click(object sender, EventArgs e)
    {
      Session["email"] = null;
      Session["password"] = null;
      Session.Abandon();
      Response.Redirect("Login.aspx");
    }
  }

}
Login Page :
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Login.aspx.cs"
Inherits="WebApplication.Login" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>Login Page</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-
alpha1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
GLhlTQ8iRABdZLl6O3oVMWSktQOp6b7In1Zl3/Jr59b6EGGoI1aFkw7cmDA6j6gD"
crossorigin="anonymous" />
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0alpha1/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
w76AqPfDkMBDXo30jS1Sgez6pr3x5MlQ1ZAGC+nuZB+EYdgRZgiwxhTBTkF7CXvN"
crossorigin="anonymous"></script>

</head>
<body>
    <form id="form1" runat="server">
        <div class="container">
            <div class="row mt-5 justify-content-center">
                <div class="col-md-6">
                    <div class="card">
                        <div class="card-header">
                            <h3>Login Page </h3>
                        </div>
                        <div class="card-body">
                            <div class="form-group m-2">
                                <asp:Label ID="Label1" runat="server" Text="Email"></asp:Label>
                                <asp:TextBox ID="txtEmail" CssClass="form-control"
TextMode="Email" placeholder="Enter Email" runat="server"></asp:TextBox>
<asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server" ControlToValidate="txtEmail"
ForeColor="Red" Display="Dynamic"
ErrorMessage="Please Enter Email Address"></asp:RequiredFieldValidator>
                                <asp:RegularExpressionValidator ID="RegularExpressionValidator1"
ControlToValidate="txtEmail" ForeColor="Red" Display="Dynamic"
ValidationExpression="^([\w\.\-]+)@([\w\-]+)((\.(\w){2,3})+)$" runat="server"
ErrorMessage="Please Enter Valid Format."></asp:RegularExpressionValidator>
                            </div>
                            <div class="form-group m-2">
                                <asp:Label ID="Label3" runat="server" Text="Password"></asp:Label>
                                <asp:TextBox ID="txtPwd" CssClass="form-control"
TextMode="Password" placeholder="Password" runat="server"></asp:TextBox>
                                <asp:RequiredFieldValidator ID="RequiredFieldValidator2" runat="server"
ControlToValidate="txtPwd" ForeColor="Red" Display="Dynamic"
ErrorMessage="Please Enter Password"></asp:RequiredFieldValidator>
```

```
                    </div>
                </div>
                <div class="card-footer" align="center">
                    <div>

                        <asp:Button ID="Button1" CssClass="btn btn-outline-success"
OnClick="LoginBtn_Click" runat="server" Text="Login"  />
                    </div>
                </div>
            </div>
          </div>
       </div>
     </div>
   </form>
</body>
</html>
```

Login.aspx.cs using
System;
using System.Collections.Generic; using
System.Data.OleDb; using System.Linq;
using System.Web; using
System.Web.UI;
using System.Web.UI.WebControls;

```
namespace WebApplication
{
    public partial class Login : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
        }
        protected void LoginBtn_Click(object sender, EventArgs e)
        {
          string email = txtEmail.Text;          string
pwd = txtPwd.Text;

          OleDbConnection con = new
OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data
Source=C:/Users/22mca109/source/repos/WebApplication/WevAppDB.accdb");          con.Open();
          OleDbCommand cmd = new OleDbCommand("SELECT * FROM [User] WHERE
Email='"+ email +"' AND Password='"+ pwd +"'", con);
OleDbDataReader rd = cmd.ExecuteReader();          if
(rd.Read())
          {
             Session["email"] = email;
             Session["password"] = pwd;

             Response.Redirect("Home.aspx" , true);
          }
```

```
        //Response.Redirect("Home.aspx");
        con.Close();
    }
  }
}
```

Register Page
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Registraction.aspx.cs"
Inherits="WebApplication.Registraction" %>

<!DOCTYPE html>
<script runat="server">
   private void InsertUser(object source, EventArgs e)
   {
        SqlDataSource1.Insert();

   }
</script>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>Registraction Form</title>
   <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-
alpha1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
GLhlTQ8iRABdZLl6O3oVMWSktQOp6b7In1Zl3/Jr59b6EGGoI1aFkw7cmDA6j6gD"
crossorigin="anonymous" />
   <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0alpha1/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
w76AqPfDkMBDXo30jS1Sgez6pr3x5MlQ1ZAGC+nuZB+EYdgRZgiwxhTBTkF7CXvN"
crossorigin="anonymous"></script>

</head>
<body>
   <form id="form1" runat="server">
     <div class="container">
        <div class="row mt-5">
          <div class="col-md-6">
            <table class="table" border="1" align="center" cellpadding="10px" cellspacing="5px">
               <thead>
                 <tr>
                   <th colspan="2">
                      <h1 class="text-center">Registraction Form</h1>
                   </th>
                 </tr>
               </thead>
               <tbody>
                 <tr>
                   <th>
                      <asp:Label ID="Label1" runat="server" Text="Name"></asp:Label>
```

```
                        </th>
<td>
                        <asp:TextBox ID="txtID" TextMode="SingleLine" CssClass="formcontrol"
runat="server" placeholder="Enter ID"></asp:TextBox>
                        </td>
                    </tr>
                    <tr>
                        <th>
                          <asp:Label ID="lbName" runat="server" Text="Name"></asp:Label>
                        </th>
<td>
                        <asp:TextBox ID="txtName" TextMode="SingleLine"
CssClass="form-control" runat="server" placeholder="Enter Name"></asp:TextBox>
                        </td>
                    </tr>
                    <tr>
                        <th>
                          <asp:Label ID="lbEmail" runat="server" Text="Email"></asp:Label>
                        </th>
<td>
                        <asp:TextBox ID="txtEmail" TextMode="Email" CssClass="formcontrol"
runat="server" placeholder="xyz@gmail.com"></asp:TextBox>
                        </td>
                    </tr>
                    <tr>
                        <th>
                          <asp:Label ID="lbPhone" runat="server" Text="Mobile
No"></asp:Label>
                        </th>
<td>
                        <asp:TextBox ID="txtPhone" TextMode="SingleLine"
CssClass="form-control" runat="server" placeholder="Enter Mobile NO"></asp:TextBox>
                        </td>
                    </tr>
                    <tr>
                        <th>
                          <asp:Label ID="lbPwd" runat="server"
Text="Password"></asp:Label>
                        </th>
<td>
                        <asp:TextBox ID="txtPwd" TextMode="Password" CssClass="formcontrol"
runat="server" placeholder="**********"></asp:TextBox>
                        </td>
                    </tr>
                    <tr>
                        <th>
                          <asp:Label ID="lbGender" runat="server"
Text="Gender"></asp:Label>
                        </th>
```

```
            <td>
               <div class="form-control">
                  <asp:RadioButtonList ID="txtGender" runat="server">
                     <asp:ListItem>Male</asp:ListItem>
                     <asp:ListItem>Female</asp:ListItem>

                  </asp:RadioButtonList>
               </div>
            </td>
         </tr>
         <tr>
            <th>
               <asp:Label ID="lbHobby" runat="server"
Text="Hobby"></asp:Label>
            </th>
            <td>
               <div class="form-control">
                  <asp:CheckBoxList ID="txtHobby" runat="server">
                     <asp:ListItem>Games</asp:ListItem>
                     <asp:ListItem>Reading</asp:ListItem>
                     <asp:ListItem>Travelling</asp:ListItem>
                     <asp:ListItem>Games</asp:ListItem>
                  </asp:CheckBoxList>
               </div>
            </td>
         </tr>
       </tbody>
       <tfoot>
          <tr>
            <td>
               <asp:Button ID="btnStoreDatabase" CssClass="btn btn-outlineprimary text-center"
OnClick="InsertUser" runat="server" Text="Store In Database" />
               <asp:Button ID="btnSubmit" CssClass="btn btn-outline-success text-center"
OnClick="btnSubmit_Click" runat="server" Text="Submit" />
            </td>
          </tr>
       </tfoot>
     </table>
   </div>
 </div>

 <div class="row mt-5">
    <div class="col-md-12">
       <div class="card">
          <div class="card-header">
             <h1>Registration Form Data</h1>
          </div>
          <div class="card-body">
             <asp:GridView ID="gridLoad" runat="server" Width="100%"
```

```
AutoGenerateColumns="false" CellPadding="4" ForeColor="#333333" GridLines="None">
                <AlternatingRowStyle BackColor="White" />
                <Columns>
                   <asp:BoundField HeaderText="Name" DataField="Name" />
                   <asp:BoundField HeaderText="Email" DataField="Email" />
                   <asp:BoundField HeaderText="Phone" DataField="Phone" />
                   <asp:BoundField HeaderText="Password" DataField="Password" />
</Columns>
                <EditRowStyle BackColor="#2461BF" />
                <FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
                <HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
                <PagerStyle BackColor="#2461BF" ForeColor="White"
HorizontalAlign="Center" />
                <RowStyle BackColor="#EFF3FB" />
                <SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True"
ForeColor="#333333" />
                <SortedAscendingCellStyle BackColor="#F5F7FB" />
                <SortedAscendingHeaderStyle BackColor="#6D95E1" />
                <SortedDescendingCellStyle BackColor="#E9EBEF" />
                <SortedDescendingHeaderStyle BackColor="#4870BE" />
</asp:GridView>
            </div>
          </div>

       </div>
     </div>

     <div class="row mt-5">
        <div class="col-md-12">
          <div class="card">
            <div class="card-header">
               <h1>DataBase Data</h1>
            </div>
            <div class="card-body">
               <asp:GridView ID="GridView1" runat="server" Width="100%"
AutoGenerateEditButton="True" AutoGenerateDeleteButton="True"
AutoGenerateColumns="False" DataKeyNames="ID" DataSourceID="SqlDataSource1"
CellPadding="4" ForeColor="#333333" GridLines="None">
                <AlternatingRowStyle BackColor="White" />
<Columns>
                   <asp:BoundField DataField="ID" HeaderText="ID"
InsertVisible="False" ReadOnly="True" SortExpression="ID" />
                   <asp:BoundField DataField="Name" HeaderText="Name" SortExpression="Name" />
                   <asp:BoundField DataField="Email" HeaderText="Email" SortExpression="Email" />
                   <asp:BoundField DataField="Phone" HeaderText="Phone"
SortExpression="Phone" />
                   <asp:BoundField DataField="Password" HeaderText="Password"
SortExpression="Password" />
                </Columns>
```

```
                    <EditRowStyle BackColor="#2461BF" />
                    <FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
                    <HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
                    <PagerStyle BackColor="#2461BF" ForeColor="White"
HorizontalAlign="Center" />
                    <RowStyle BackColor="#EFF3FB" />
                    <SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True"
ForeColor="#333333" />
                    <SortedAscendingCellStyle BackColor="#F5F7FB" />
                    <SortedAscendingHeaderStyle BackColor="#6D95E1" />
                    <SortedDescendingCellStyle BackColor="#E9EBEF" />
                    <SortedDescendingHeaderStyle BackColor="#4870BE" />
</asp:GridView>
                  <asp:SqlDataSource ID="SqlDataSource1" runat="server"
ConnectionString="<%$ ConnectionStrings:ConnectionString %>"
                    ProviderName="<%$
ConnectionStrings:ConnectionString.ProviderName %>"
                    InsertCommand="INSERT INTO
[User](ID,Name,Email,Phone,Password)
VALUES(@ID,@Name,@Email,@Phone,@Password)"
                    DeleteCommand="DELETE * FROM [User] WHERE [ID]=@ID"
                    UpdateCommand="UPDATE [User] SET
[Name]=@Name,[Email]=@Email,[Phone]=@Phone,[Password]=@Password,[Gender]=@
Gender,[Hobby]=@Hobby WHERE [ID]=@ID"
                    SelectCommand="SELECT * FROM [User]">
                    <InsertParameters>
                      <asp:FormParameter name="ID" FormField="txtID" />
                      <asp:FormParameter name="Name" FormField="txtName" />
                      <asp:FormParameter name="Email" FormField="txtEmail" />
                      <asp:FormParameter name="Phone" FormField="txtPhone" />
                      <asp:FormParameter name="Password" FormField="txtPwd" />
</InsertParameters>
                  </asp:SqlDataSource>
                </div>
              </div>
            </div>
          </div>
        </div>
    </form>
</body>
</html>

Register.aspx.cs using System; using
System.Collections; using
System.Collections.Generic; using
System.Data; using System.Linq; using
System.Web; using System.Web.UI;
using System.Web.UI.WebControls;
```

```
namespace WebApplication
{
    public partial class Registraction : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
        }
        protected void btnSubmit_Click(object sender, EventArgs e)
        {

            DataTable l = new DataTable();
            l.Columns.Add("Name",typeof(String));
            l.Columns.Add("Email", typeof(String));
            l.Columns.Add("Phone", typeof(String));
            l.Columns.Add("Password", typeof(String));
            l.Columns.Add("Gender", typeof(String));
            l.Columns.Add("Hobby", typeof(String));

            // Fetch Hobby Data
            System.Text.StringBuilder hobby = new System.Text.StringBuilder();          for (int i =
0; i < txtHobby.Items.Count; i++)
            {
                if (txtHobby.Items[i].Selected)
                {
                    hobby.Append(txtHobby.Items[i].Text);
                    hobby.Append(", ");
                }
            }

            // Add Data In Row
            l.Rows.Add(txtName.Text, txtEmail.Text, txtPhone.Text, txtPwd.Text, txtGender.SelectedValue,
hobby);

            // Load the GridView          gridLoad.DataSource
= l;
            gridLoad.DataBind();

        }
    }
}
```

Home Page
```
<%@ Page Title="Home Page" Language="C#"
MasterPageFile="~/SampleMasterPage.Master" AutoEventWireup="true"
CodeBehind="Home.aspx.cs" Inherits="WebApplication.Home" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server"> </asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
    <div class="container">
        <div class="row">
```

```
        <div class="col-md-12">
            <asp:GridView ID="GridView1" runat="server" Width="100%" CellPadding="4"
ForeColor="#333333" GridLines="None">
                <AlternatingRowStyle BackColor="White" />
                <EditRowStyle BackColor="#2461BF" />
                <FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
                <HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<PagerStyle BackColor="#2461BF" ForeColor="White"
HorizontalAlign="Center" />
                <RowStyle BackColor="#EFF3FB" />
                <SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True"
ForeColor="#333333" />
                <SortedAscendingCellStyle BackColor="#F5F7FB" />
                <SortedAscendingHeaderStyle BackColor="#6D95E1" />
                <SortedDescendingCellStyle BackColor="#E9EBEF" />
                <SortedDescendingHeaderStyle BackColor="#4870BE" />          </asp:GridView>
        </div>
      </div>
    </div>

</asp:Content>
```

Home.aspx.cs using
System;
using System.Collections.Generic; using
System.Data; using
System.Data.OleDb; using System.Linq;
using System.Web; using
System.Web.UI;
using System.Web.UI.WebControls;

```
namespace WebApplication
{
    public partial class Home : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            if(Session["email"] != null)
            {
                OleDbConnection con = new
OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data
Source=C:/Users/22mca109/source/repos/WebApplication/WevAppDB.accdb");          con.Open();
                OleDbCommand cmd = new OleDbCommand("SELECT * FROM [User]", con);
                OleDbDataAdapter DA = new OleDbDataAdapter(cmd);
                DataSet DS = new DataSet();
                DA.Fill(DS);
                GridView1.DataSource = DS;              GridView1.DataBind();
                con.Close();
```

```
      }
else
      {
         Response.Redirect("Login.aspx");
      }
    }
  }
}
```

Registration Form

Enter ID	Enter ID
Name	Enter Name
Email	Email ID
Mobile No	Enter Mobile NO
Password	Password
Gender	○Male ○Female
Hobby	☐Games ☐Reading ☐Travelling ☐Games

Submit   Save Data

DataBase Data

	ID	Name	Email	Phone	Password
Edit Delete	1	Deep	deep@gmail.com	9874563251	deep@123
Edit Delete	2	admin	admin@gmail	7963541250	admin

My Website

Home AboutUs

Logout

ID	Name	Email	Phone	Password
1	Deep	deep@gmail.com	9874563251	deep@123
2	admin	admin@gmail	7963541250	admin

Menu

Footer

Login Page

Email

Enter Email

Password

Password

Login

13. Create ASP.NET application for login and registration using session and cookies.

Login Page
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Login.aspx.cs"
Inherits="CRUDOperation.Welcome" %>
```

```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">    <link
rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous" />    <title>Welcome Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div class="container-fluid">
            <div class="row mt-5 justify-content-center">
                <div class="col-md-4">
                    <div class="card">
                        <div class="card-header">
                            <h1>Login Form</h1>
                        </div>
                        <div class="card-body">
                            <asp:Label ID="lbError" ForeColor="Red" runat="server"></asp:Label>
<div class="m-2">
                                <asp:Label ID="Label11" runat="server" Text="Email"></asp:Label>
<asp:TextBox ID="txtEmail" TextMode="Email" CssClass="formcontrol" placeholder="Enter Email"
runat="server"></asp:TextBox>
                                <asp:RequiredFieldValidator ID="RequiredFieldValidator5" runat="server"
Display="Dynamic" ForeColor="Red" ControlToValidate="txtEmail"
ErrorMessage="Required"></asp:RequiredFieldValidator>
                            </div>
                            <div class="m-2">
                                <asp:Label ID="Label12" runat="server"
Text="Password"></asp:Label>
                                <asp:TextBox ID="txtPwd" TextMode="Password" CssClass="formcontrol"
placeholder="Enter Password" runat="server"></asp:TextBox>
<asp:RequiredFieldValidator ID="RequiredFieldValidator6" runat="server" Display="Dynamic"
ForeColor="Red" ControlToValidate="txtPwd"
ErrorMessage="Required"></asp:RequiredFieldValidator>
                            </div>
                        </div>
                        <div class="card-footer">
                            <asp:Button ID="btnLogin" OnClick="btnLogin_Click" runat="server"
CssClass="btn btn-outline-success" Text="Login"/>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </form>
```

```html
    <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
integrity="sha384q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.7/dist/umd/popper.min.js" integrity="sha384-
UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/bootstrap.min.js" integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>
</body>
</html>
```

Login.aspx.cs using System; using
System.Collections.Generic; using
System.Data.SqlClient; using
System.Linq; using System.Web; using
System.Web.UI;
using System.Web.UI.WebControls;

```csharp
namespace CRUDOperation
{
    public partial class Welcome : System.Web.UI.Page
    {
        SqlConnection con = new SqlConnection(@"Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\22mca109\source\repos\
CRUDOperation\CRUDOperation\App_Data\Database.mdf;Integrated Security=True");        protected void
Page_Load(object sender, EventArgs e)
        {
        }
        protected void btnLogin_Click(object sender, EventArgs e)
        {
            string query = "select *from [user] where Email=@Email and
Password=@Password";

            SqlCommand cmd = new SqlCommand(query, con);

            cmd.Parameters.AddWithValue("Email",txtEmail.Text);
cmd.Parameters.AddWithValue("Password", txtPwd.Text);

            con.Open();
            SqlDataReader sd = cmd.ExecuteReader();

            if(sd.Read())
            {
                Session["userName"] = sd.GetString(1);
                Response.Redirect("DisplayUser.aspx");
            }
else
            {
```

```
                lbError.Text = "Email And Password Not Match.";
            }
            con.Close();
        }
    }
}
```

Register Page :

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Register.aspx.cs"
Inherits="CRUDOperation.Register" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-
alpha3/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
KK94CHFLLe+nY2dmCWGMq91rCGa5gtU4mk92HdvYe+M/SXH301p5ILy+dN9+nJOZ"
crossorigin="anonymous" />
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0alpha3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
ENjdO4Dr2bkBIFxQpeoTz1HIcje39Wm4jDKdf19U8gI4ddQ3GYNS7NTKfAdVQSZe"
crossorigin="anonymous"></script>
    <title>Register Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div class="container-fluid">
            <div class="row justify-content-center">
                <div class="col-md-6">
                    <div class="card">
                        <div class="card-header">
                            <h2 class="text-center">Register Form</h2>
                        </div>
                        <div class="card-body">
                            <div class="m-2">
                            <asp:Label ID="lbName" runat="server" Text="Name"></asp:Label>
<asp:TextBox ID="txtName" TextMode="SingleLine" CssClass="formcontrol" placeholder="Enter Name"
runat="server"></asp:TextBox>
                            <asp:RequiredFieldValidator ID="RequiredFieldValidator1"
ControlToValidate="txtName" ForeColor="Red" Display="Dynamic" runat="server"
ErrorMessage="Require"></asp:RequiredFieldValidator>
                            </div>
                            <div class="m-2">
                            <asp:Label ID="lbEmail" runat="server" Text="Email"></asp:Label>
<asp:TextBox ID="txtEmail" TextMode="Email" CssClass="formcontrol" placeholder="Enter Email"
runat="server"></asp:TextBox>
                            <asp:RequiredFieldValidator ID="RequiredFieldValidator2"
ControlToValidate="txtEmail" ForeColor="Red" Display="Dynamic" runat="server"
ErrorMessage="Require"></asp:RequiredFieldValidator>
```

```
                  <asp:RegularExpressionValidator ID="RegularExpressionValidator1"
ControlToValidate="txtEmail" ForeColor="Red" Display="Dynamic" runat="server"
ErrorMessage="Email Format not Valid" ValidationExpression="\w+([-+.']\w+)*@\w+([.]\w+)*\.\w+([-
.]\w+)*"></asp:RegularExpressionValidator>
                  </div>
                  <div class="m-2">
                      <asp:Label ID="lbPwd" runat="server" Text="Password"></asp:Label>
<asp:TextBox ID="txtPwd" TextMode="Password" CssClass="formcontrol" placeholder="********"
runat="server"></asp:TextBox>
                      <asp:RequiredFieldValidator ID="RequiredFieldValidator3"
ControlToValidate="txtPwd" ForeColor="Red" Display="Dynamic" runat="server"
ErrorMessage="Require"></asp:RequiredFieldValidator>
                  </div>
                  <div class="m-2">
                      <asp:Label ID="lbCPwd" runat="server" Text="Confirm
Password"></asp:Label>
                      <asp:TextBox ID="txtCPwd" TextMode="Password" CssClass="formcontrol"
placeholder="********" runat="server"></asp:TextBox>
                      <asp:RequiredFieldValidator ID="RequiredFieldValidator4"
ControlToValidate="txtCPwd" ForeColor="Red" Display="Dynamic" runat="server"
ErrorMessage="Require"></asp:RequiredFieldValidator>
                      <asp:CompareValidator ID="CompareValidator1" runat="server"
ControlToCompare="txtPwd" ControlToValidate="txtCPwd" ForeColor="Red" Display="Dynamic"
ErrorMessage="Password and Comfirm Password not match"></asp:CompareValidator>
                  </div>
                  <div class="m-2">
                  <asp:Label ID="Label8" runat="server" Text="Gender"></asp:Label>
<asp:RadioButtonList ID="txtGender" CssClass="form-control" runat="server"
RepeatDirection="Horizontal">
                      <asp:ListItem>Male</asp:ListItem>
                      <asp:ListItem>Female</asp:ListItem>
                  </asp:RadioButtonList>
                  <asp:RequiredFieldValidator ID="RequiredFieldValidator6" runat="server"
Display="Dynamic" ForeColor="Red" ControlToValidate="txtGender"
ErrorMessage="Required"></asp:RequiredFieldValidator>
              </div>
              <div class="m-2">
                 <asp:Label ID="Label9" runat="server" Text="City"></asp:Label>
                 <asp:DropDownList ID="txtCity" CssClass="form-control" runat="server">
                    <asp:ListItem Value="">Select City</asp:ListItem>
                    <asp:ListItem Value="Surat">Surat</asp:ListItem>
                    <asp:ListItem Value="Baroda">Baroda</asp:ListItem>
                    <asp:ListItem Value="Vapi">Vapi</asp:ListItem>
                    <asp:ListItem Value="Valsad">Valsad</asp:ListItem>
                    <asp:ListItem Value="Ahemdabad">Ahemdabad</asp:ListItem>
                 </asp:DropDownList>
                 <asp:RequiredFieldValidator ID="RequiredFieldValidator7" runat="server"
Display="Dynamic" ForeColor="Red" ControlToValidate="txtCity"
ErrorMessage="Required"></asp:RequiredFieldValidator>
```

```
                    </div>
                      <div class="m-2">
                          <asp:Label ID="lbAddress" runat="server" Text="Enter
Address"></asp:Label>
                              <asp:TextBox ID="txtAddress" TextMode="MultiLine" CssClass="formcontrol"
placeholder="Enter Address Here..." runat="server"></asp:TextBox>
<asp:RequiredFieldValidator ID="RequiredFieldValidator5"
ControlToValidate="txtAddress" ForeColor="Red" Display="Dynamic" runat="server"
ErrorMessage="Require"></asp:RequiredFieldValidator>
                      </div>
                  </div>
                  <div class="card-footer">
                      <div class="m-2">
                          <asp:Button ID="btnSave" CssClass="btn btn-outline-success" runat="server"
Text="Save" OnClick="btnSave_Click" />
                      </div>
                  </div>
              </div>
          </div>
        </div>
    </form>
</body>
</html>
```

Register.aspx.cs using System; using
System.Collections.Generic; using
System.Configuration; using
System.Data.SqlClient; using
System.Linq; using System.Web; using
System.Web.UI;
using System.Web.UI.WebControls;

```
namespace CRUDOperation
{
    public partial class Register : System.Web.UI.Page
    {
      SqlConnection con = new
SqlConnection(ConfigurationManager.ConnectionStrings["ConEmp"].ConnectionString);

      protected void Page_Load(object sender, EventArgs e)
      {
        if (Session["userName"] == null)
        {
          Response.Redirect("Login.aspx");
        }
      }

      protected void btnSave_Click(object sender, EventArgs e)
```

```
    {
        string query = "insert into
[user](Name,Email,Password,Gender,City,Address,DOB)values(@Name,@Email,@Passw
ord,@Gender,@City,@Address,@DOB)";

        SqlCommand cmd = new SqlCommand(query, con);

        cmd.Parameters.AddWithValue("Name", txtName.Text);
cmd.Parameters.AddWithValue("Email", txtEmail.Text);
cmd.Parameters.AddWithValue("Password", txtPwd.Text);
cmd.Parameters.AddWithValue("Address", txtAddress.Text);
cmd.Parameters.AddWithValue("Gender", txtGender.SelectedValue);
cmd.Parameters.AddWithValue("City", txtCity.SelectedValue);
cmd.Parameters.AddWithValue("DOB", DateTime.Now);

        try
        {
           con.Open();
           cmd.ExecuteNonQuery();
        }
        catch(Exception ex)
        {
           Response.Write("<script>alert('" + ex + "')</script>");
        }
finally
        {
           con.Close();
        }

        Response.Redirect("DisplayUser.aspx");

        txtName.Text = String.Empty;
txtEmail.Text = String.Empty;          txtPwd.Text =
String.Empty;          txtAddress.Text = String.Empty;
txtGender.Text = String.Empty;
        txtCity.Text = String.Empty;
    }
  }
}
```

Welcome Page
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Welcome.aspx.cs"
Inherits="CRUDOperation.Welcome1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
```

```
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous" />
</head>
<body>
    <form id="form1" runat="server">
        <div class="container-fluid">
            <div class="row mt-5 justify-content-center">
                <div class="col-md-6">
                    <h1>Welcome,
                        <asp:Label ID="lbUserName" runat="server"></asp:Label></h1>
                </div>
                <!-- Button trigger modal -->
                <asp:Button ID="btnNewUser" runat="server" OnClick="btnNewUser_Click"
CssClass="btn btn-outline-primary" Text="Add New User" />
            </div>
            <div class="row mt-5 justify-content-center">
                <div class="col-md-6">
                    <asp:GridView ID="GridView1" DataKeyNames="Id"
AutoGenerateColumns="False" OnRowCancelingEdit="GridView1_RowCancelingEdit"
OnRowDeleting="GridView1_RowDeleting" OnRowUpdating="GridView1_RowUpdating"
OnRowEditing="GridView1_RowEditing" runat="server">
                        <Columns>
                            <asp:TemplateField HeaderText="Name">
                                <EditItemTemplate>
                                    <asp:TextBox ID="TextBox1" runat="server" Text='<%#
Bind("Name") %>'></asp:TextBox>
                                </EditItemTemplate>
                                <ItemTemplate>
                                    <asp:Label ID="Label1" runat="server" Text='<%# Eval("Name") %>'></asp:Label>
                                </ItemTemplate>
                            </asp:TemplateField>
                            <asp:TemplateField HeaderText="Email">
                                <EditItemTemplate>
                                    <asp:TextBox ID="TextBox2" runat="server" Text='<%#
Bind("Email") %>'></asp:TextBox>
                                </EditItemTemplate>
                                <ItemTemplate>
                                    <asp:Label ID="Label2" runat="server" Text='<%# Eval("Email")
%>'></asp:Label>
                                </ItemTemplate>
                            </asp:TemplateField>
                            <asp:TemplateField HeaderText="Password">
                                <EditItemTemplate>
                                    <asp:TextBox ID="TextBox3" runat="server" Text='<%#
Bind("Password") %>'></asp:TextBox>
                                </EditItemTemplate>
<ItemTemplate>
```

```
                    <asp:Label ID="Label3" runat="server" Text='<%# Eval("Password")
%>'></asp:Label>
                  </ItemTemplate>
                </asp:TemplateField>
                <asp:CommandField HeaderText="Action" ShowDeleteButton="True"
ShowEditButton="True" ShowHeader="True" />
              </Columns>
            </asp:GridView>
          </div>
        </div>
      </div>
    </form>

  <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
integrity="sha384q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.7/dist/umd/popper.min.js" integrity="sha384-
UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous"></script>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/bootstrap.min.js" integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>

</body>
</html>
```

Welcome.aspx.cs

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

namespace CRUDOperation
{
  public partial class Welcome1 : System.Web.UI.Page
  {
    SqlConnection con = new
SqlConnection(ConfigurationManager.ConnectionStrings["ConEmp"].ConnectionString);        protected void
Page_Load(object sender, EventArgs e)
    {
      if (Session["userName"] != null)
      {
        LoadData();
        lbUserName.Text = Session["userName"].ToString();
```

```csharp
        }
else
        {
            Response.Redirect("Login.aspx");
        }
    }
    private void LoadData()
    {
        DataTable dt = new DataTable();

        SqlDataAdapter da = new SqlDataAdapter("select *from [user]", con);
con.Open();          da.Fill(dt);
        con.Close();

        if (dt.Rows.Count > 0)
        {
            GridView1.DataSource = dt;
            GridView1.DataBind();
        }
    }
    protected void btnNewUser_Click(object sender, EventArgs e)
    {
        Response.Redirect("Register.aspx");
    }
    protected void GridView1_RowCancelingEdit(object sender,
GridViewCancelEditEventArgs e)
    {
        GridView1.EditIndex = -1;
        LoadData();
    }
    protected void GridView1_RowDeleting(object sender, GridViewDeleteEventArgs e)
    { }
 protected void GridView1_RowUpdating(object sender, GridViewUpdateEventArgs e)
    {
    }
    protected void GridView1_RowEditing(object sender, GridViewEditEventArgs e)
    {
        GridView1.EditIndex = e.NewEditIndex;
        LoadData();
    }
  }
}
```

DisplayUser Page
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="DisplayUser.aspx.cs"
Inherits="CRUDOperation.DisplayUser" %>

<!DOCTYPE html>
```

```html
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">    <link
rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/css/bootstrap.min.css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous" />    <title>CRUD Operation</title>
</head>
<body>
   <form id="form1" runat="server">
      <div class="container-fluid">
         <div class="row mt-5 justify-content-center">
            <div class="col-md-6">
               <h1>Welcome,
                  <asp:Label ID="lbUserName" runat="server"></asp:Label></h1>
            </div>
            <!-- Button trigger modal -->
            <asp:Button ID="btnNewUser" runat="server" OnClick="btnNewUser_Click"
CssClass="btn btn-outline-primary" Text="Add New User" />
         </div>
         <div class="row mt-5 justify-content-center">
            <div class="col-md-6">
               <asp:GridView ID="GridView1" CssClass="table" runat="server"
Width="100%" DataKeyNames="Id" AutoGenerateColumns="False" CellPadding="4"
ForeColor="#333333" GridLines="None"
OnRowCancelingEdit="GridView1_RowCancelingEdit"
OnRowDeleting="GridView1_RowDeleting" OnRowEditing="GridView1_RowEditing"
OnRowUpdating="GridView1_RowUpdating">
                  <AlternatingRowStyle BackColor="White" />
                  <Columns>
                     <asp:CommandField HeaderText="Action" ShowDeleteButton="True"
ShowEditButton="True" ShowHeader="True" />
                     <asp:TemplateField HeaderText="ID">
                        <EditItemTemplate>
                           <asp:Label ID="Label2" runat="server" Text='<%# Eval("Id") %>'></asp:Label>
                        </EditItemTemplate>
                        <ItemTemplate>
                           <asp:Label ID="Label1" runat="server" Text='<%# Eval("Id") %>'></asp:Label>
                        </ItemTemplate>
                     </asp:TemplateField>
                     <asp:TemplateField HeaderText="Name">
                        <EditItemTemplate>
                           <asp:TextBox ID="Name" TextMode="SingleLine" runat="server"
Text='<%# Bind("Name") %>'></asp:TextBox>
                        </EditItemTemplate>
                        <ItemTemplate>
                           <asp:Label ID="Label3" runat="server" Text='<%# Eval("Name")
%>'></asp:Label>
                        </ItemTemplate>
                     </asp:TemplateField>
```

```
                        <asp:TemplateField HeaderText="Address">
                          <EditItemTemplate>
                            <asp:TextBox ID="Address" TextMode="SingleLine" runat="server"
Text='<%# Bind("Address") %>'></asp:TextBox>
                          </EditItemTemplate>
                          <ItemTemplate>
                            <asp:Label ID="Label5" runat="server" Text='<%# Eval("Address") %>'></asp:Label>
                          </ItemTemplate>
                        </asp:TemplateField>
                        <asp:TemplateField HeaderText="Gender">
                          <EditItemTemplate>
                            <asp:RadioButtonList ID="Gender" runat="server"
SelectedValue='<%# Eval("Gender").ToString() %>'>
                                <asp:ListItem Value="Male">Male</asp:ListItem>
                                <asp:ListItem Value="Female">Female</asp:ListItem>
                              </asp:RadioButtonList>
                          </EditItemTemplate>
                          <ItemTemplate>
                            <asp:Label ID="Label6" runat="server" Text='<%# Eval("Gender")
%>'></asp:Label>
                          </ItemTemplate>
                        </asp:TemplateField>
                        <asp:TemplateField HeaderText="City">
                          <EditItemTemplate>
                            <asp:DropDownList ID="City" runat="server" SelectedValue='<%#
Eval("City").ToString() %>'>
                                <asp:ListItem Value="Surat">Surat</asp:ListItem>
                                <asp:ListItem Value="Baroda">Baroda</asp:ListItem>
                                <asp:ListItem Value="Vapi">Vapi</asp:ListItem>
                                <asp:ListItem Value="Valsad">Valsad</asp:ListItem>
                                <asp:ListItem Value="Ahemdabad">Ahemdabad</asp:ListItem>
</asp:DropDownList>
                          </EditItemTemplate>
                          <ItemTemplate>
                            <asp:Label ID="Label7" runat="server" Text='<%# Eval("City") %>'></asp:Label>
                          </ItemTemplate>
                        </asp:TemplateField>
                        <asp:TemplateField HeaderText="Email">
                          <EditItemTemplate>
                            <asp:TextBox ID="Email" TextMode="Email" runat="server"
Text='<%# Bind("Email") %>'></asp:TextBox>
                          </EditItemTemplate>
                          <ItemTemplate>
                            <asp:Label ID="Label14" runat="server" Text='<%# Eval("Email")
%>'></asp:Label>
                          </ItemTemplate>
                        </asp:TemplateField>
                        <asp:TemplateField HeaderText="Password">
<EditItemTemplate>
```

```
                        <asp:TextBox ID="Pwd" TextMode="Password" runat="server"
Text='<%# Bind("Password") %>'></asp:TextBox>
                    </EditItemTemplate>
                    <ItemTemplate>
                      <asp:Label ID="Label15" runat="server" Text='<%#
Eval("Password") %>'></asp:Label>
                    </ItemTemplate>
                  </asp:TemplateField>
              </Columns>
              <EditRowStyle BackColor="#2461BF" />
              <FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
              <HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
              <PagerStyle BackColor="#2461BF" ForeColor="White"
HorizontalAlign="Center" />
              <RowStyle BackColor="#EFF3FB" />
              <SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True"
ForeColor="#333333" />
              <SortedAscendingCellStyle BackColor="#F5F7FB" />
              <SortedAscendingHeaderStyle BackColor="#6D95E1" />
              <SortedDescendingCellStyle BackColor="#E9EBEF" />
              <SortedDescendingHeaderStyle BackColor="#4870BE" />          </asp:GridView>
          </div>
        </div>
      </div>

    </form>

    <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
integrity="sha384q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.14.7/dist/umd/popper.min.js" integrity="sha384-
UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous"></script>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.3.1/dist/js/bootstrap.min.js" integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>

</body>
</html>
```

DisplayUser.aspx.cs using
System;
using System.Collections.Generic; using
System.Data; using
System.Data.SqlClient; using
System.Linq; using System.Web; using
System.Web.UI;
using System.Web.UI.WebControls;

```
namespace CRUDOperation
{
   public partial class DisplayUser : System.Web.UI.Page
   {
      SqlConnection con = new SqlConnection(@"Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\22mca109\source\repos\
CRUDOperation\CRUDOperation\App_Data\Database.mdf;Integrated Security=True");        protected void
Page_Load(object sender, EventArgs e)
      {
         if (Session["userName"] != null)
         {
            LoadData();
            lbUserName.Text = Session["userName"].ToString();
         }
else
         {
            Response.Redirect("Login.aspx");
         }
      }

      private void LoadData()
      {
         DataTable dt = new DataTable();

         SqlDataAdapter da = new SqlDataAdapter("select *from [user]",con);
con.Open();          da.Fill(dt);
         con.Close();

         if(dt.Rows.Count > 0)
         {
            GridView1.DataSource = dt;
            GridView1.DataBind();
         }
      }

      protected void GridView1_RowDeleting(object sender, GridViewDeleteEventArgs e)
      {
         int id = Convert.ToInt32(GridView1.DataKeys[e.RowIndex].Values["Id"].ToString());

         con.Open();
         SqlCommand cmd = new SqlCommand("Delete from [user] where Id=@Id",con);
cmd.Parameters.AddWithValue("Id",id);          cmd.ExecuteNonQuery();
         con.Close();

         LoadData();
      }
      protected void GridView1_RowEditing(object sender, GridViewEditEventArgs e)
      {
         GridView1.EditIndex = e.NewEditIndex;
```

```
        LoadData();
    }

    protected void GridView1_RowUpdating(object sender, GridViewUpdateEventArgs e)
    {
        TextBox txtname = GridView1.Rows[e.RowIndex].FindControl("Name") as TextBox;        TextBox
txtaddress = GridView1.Rows[e.RowIndex].FindControl("Address") as TextBox;
        RadioButtonList txtGender = GridView1.Rows[e.RowIndex].FindControl("Gender") as
RadioButtonList;
        DropDownList txtCity = GridView1.Rows[e.RowIndex].FindControl("City") as
DropDownList;
        TextBox txtemail = GridView1.Rows[e.RowIndex].FindControl("Email") as TextBox;        TextBox
txtpwd = GridView1.Rows[e.RowIndex].FindControl("Pwd") as TextBox;           int id =
Convert.ToInt32(GridView1.DataKeys[e.RowIndex].Values["Id"].ToString());

        Response.Write("<script>alert('"+ txtGender.SelectedValue +"')</script>");

        con.Open();
        SqlCommand cmd = new SqlCommand("update [user] set
Name=@Name,Address=@Address,Gender=@Gender,City=@City,Email=@Email,Passw
ord=@Password where Id=@Id", con);            cmd.CommandType = CommandType.Text;
cmd.Parameters.AddWithValue("Id", id);           cmd.Parameters.AddWithValue("Name", txtname.Text);
cmd.Parameters.AddWithValue("Address", txtaddress.Text);
        cmd.Parameters.AddWithValue("Gender", txtGender.SelectedValue.ToString());
cmd.Parameters.AddWithValue("City", txtCity.SelectedValue.ToString());
cmd.Parameters.AddWithValue("Email", txtemail.Text);            cmd.Parameters.AddWithValue("Password",
txtpwd.Text);           cmd.ExecuteNonQuery();           con.Close();
        GridView1.EditIndex = -1;
        LoadData();
    }
    protected void GridView1_RowCancelingEdit(object sender,
GridViewCancelEditEventArgs e)
    {
        GridView1.EditIndex = -1;
        LoadData();
    }
    protected void btnNewUser_Click(object sender, EventArgs e)
    {
        Response.Redirect("Register.aspx");
    }
  }
}
```

Output :

Register Form

Name

Enter Name

Email

Enter Email

Password

Password

Confirm Password

Confirm Password

Gender

○Male○Female

City

Select City

Enter Address

Enter Address Here...

Save

Login Page

Email

Enter Email

Password

Password

Login

Welcome, admin

Add New User

Action	ID	Name	Address	Gender	City	Email	Password
Edit Delete	2	admin	VEsu	Male	Surat	admin@gmail.com	admin
Edit Delete	5	Deep	katargam	Male	Surat	deep@gmail.com	deep

Welcome, admin

Add New User

Action	ID	Name	Address	Gender	City	Email	Password
Update Cancel	5	Deep	katargam	○Male ● Female	Surat	deep@gmail.com	
Edit Delete	7	jeet	vesu	Male	Surat	jeet@gmail.com	1234

14 - Demonstrate web applications with AJAX.

Date and Time Example :

WebForm2.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs"
Inherits="ajaxxx.WebForm2" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
     <div>
        <asp:ScriptManager ID="ScriptManager1" runat="server">
        </asp:ScriptManager>
        <br />
        <asp:UpdatePanel ID="UpdatePanel1" runat="server">
          <ContentTemplate>
             <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
             <asp:Button ID="Button1" runat="server" Text="Button"
OnClick="Button1_Click" />
             <asp:Timer ID="Timer1" runat="server" OnTick="Timer1_Tick" Interval="5000">
             </asp:Timer>
             <asp:Label ID="Label2" runat="server" Text="Label"></asp:Label>
          </ContentTemplate>
        </asp:UpdatePanel>
     </div>
   </form>
</body>
</html>
```

WebForm2.aspx.cs
```
using System;
using System.Collections.Generic; using
System.Linq; using System.Web; using
System.Web.UI;
using System.Web.UI.WebControls;

namespace ajax
{
   public partial class WebForm2 : System.Web.UI.Page
   {
     protected void Page_Load(object sender, EventArgs e)
     {
     }
     protected void Timer1_Tick(object sender, EventArgs e)
     {
        Label1.Text = DateTime.Now.ToString();

     }
      protected void Button1_Click(object sender, EventArgs e)
     {
        Label2.Text = "hello";
     }
   }
}
```

Output :

$$25\text{-}05\text{-}2023\ 20\text{:}10\text{:}34\quad \boxed{\text{Button}}\quad \text{hello}$$

Country And State Example

WebForm1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="ajaxxx.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
     <div>
       <asp:ScriptManager ID="ScriptManager1" runat="server">
       </asp:ScriptManager>
       <br />
       <asp:UpdatePanel ID="UpdatePanel1" runat="server">
         <ContentTemplate>
           <asp:DropDownList ID="DropDownList1" runat="server" AutoPostBack="True"
DataSourceID="SqlDataSource1" DataTextField="cname" DataValueField="cid"
OnSelectedIndexChanged="DropDownList1_SelectedIndexChanged">
           </asp:DropDownList>
           <asp:SqlDataSource ID="SqlDataSource1" runat="server"
ConnectionString="<%$ ConnectionStrings:ConnectionString %>"
SelectCommand="SELECT * FROM [con]"></asp:SqlDataSource>
           <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
           <asp:DropDownList ID="DropDownList2" runat="server"
AutoPostBack="True">
           </asp:DropDownList>
         </ContentTemplate>
       </asp:UpdatePanel>
     </div>
   </form>
</body>
</html>
```

WebForm1.aspx.cs using
System;
using System.Collections.Generic; using
System.Data; using System.Data.SqlClient;
using System.Linq; using
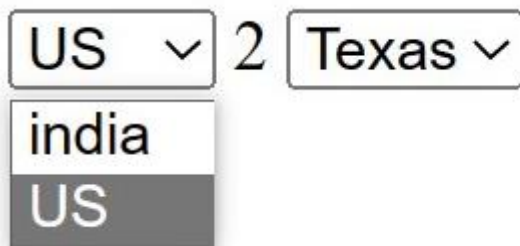System.Reflection.Emit;

```
using System.Web; using
System.Web.UI;
using System.Web.UI.WebControls;

namespace ajaxxx
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
        }
        protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
        {
            Label1.Text = DropDownList1.SelectedValue;
dis(int.Parse(DropDownList1.SelectedValue));
        }
        private void dis(int cid)
        {
            SqlConnection san = new SqlConnection(@"Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=D:\new
C#\ajaxxx\App_Data\Database1.mdf;Integrated Security=True");
            SqlDataAdapter sas = new SqlDataAdapter("select * from sta where cid='" + cid+"'", san);
            DataTable dt = new DataTable();
            sas.Fill(dt);
            DropDownList2.DataSource = dt;
            DropDownList2.DataBind();
            DropDownList2.DataTextField = "sname";
            DropDownList2.DataValueField = "sid";
            DropDownList2.DataBind();
        }
    }
}
```

Output :

US ∨ 2 Texas ∨

india

US