TOLANI COLLEGE OF COMMERCE

(AUTONOMOUS)

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Department of B.Sc. (Information Technology)

CERTIFICATE

This is to certify that Mr. Yashraj Singh, bearing Roll No. 62 have completed the practical in the Course of Advanced Web Programming in accordance with the syllabus of B.Sc. (Information Technology) Programme of Semester V as prescribed by the Tolani College of Commerce (Autonomous) in the academic year 2024-2025.

_____ _____

Internal Examiner **Programme Coordinator**

_____

External Examiner

Date: _____ **College Seal**

INDEX

Practical 1

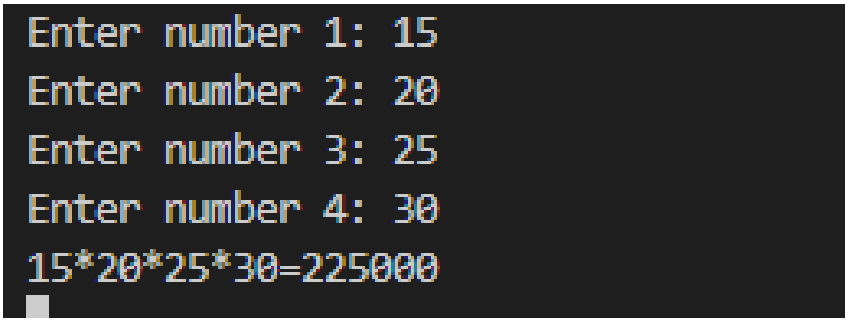
AIM: Working with basic C# and ASP .NET

A) Create an application that obtains four int values from the user and displays the product.

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace ConsoleApplication1 {
class Program {
static void Main(string[] args)
{
int num1, num2, num3, num4, prod;
Console.Write("Enter number 1: ");
num1 = Int32.Parse(Console.ReadLine());
Console.Write("Enter number 2: ");
num2 = Convert.ToInt32(Console.ReadLine());
Console.Write("Enter number 3: ");
num3 = Convert.ToInt32(Console.ReadLine());
Console.Write("Enter number 4: ");
num4 = Convert.ToInt32(Console.ReadLine());
prod = num1 * num2 * num3 * num4;
Console.WriteLine(num1 + "*" + num2 + "*" + num3 + "*" + num4 +
"=" + prod);
Console.ReadKey();
}}}
```

Output:

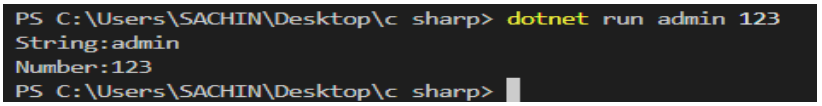

Enter number 1: 15
Enter number 2: 20
Enter number 3: 25
Enter number 4: 30
15*20*25*30=225000

B) Create an application to demonstrate string operations.

Code:

```
using System;
namespace cmdLineArgs
{
class Program
{
static void Main(string[] args)
{
string str = args[0];
int n = Convert.ToInt32(args[1]);
Console.WriteLine("String:" + str);
Console.WriteLine("Number:" + n);
}
}
}
```

Output:



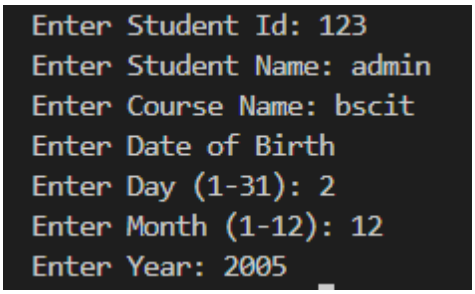
C) Create an application that receives the (Student Id, Student Name, Course Name, Date of Birth) information from a set of students. The application should also display the information of all the students once the data entered.

Code:

```
using System;
namespace ArrayOfStructs
{
class Program
{
struct Student
{
public string studid, name, cname;
public int day, month, year;
}
static void Main(string[] args)
{
Student[] s = new Student[5];
int i;
for (i = 0; i < 5; i++)
{
Console.Write("Enter Student Id:");
s[i].studid = Console.ReadLine();
Console.Write("Enter Student name : ");
s[i].name = Console.ReadLine();
Console.Write("Enter Course name : ");
s[i].cname = Console.ReadLine();
Console.Write("Enter date of birth\n Enter day(1-31):");
s[i].day = Convert.ToInt32(Console.ReadLine());
Console.Write("Enter month(1-12):");
s[i].month = Convert.ToInt32(Console.ReadLine());
Console.Write("Enter year:");
```

```
s[i].year = Convert.ToInt32(Console.ReadLine());
}
Console.WriteLine("\n\nStudent's List\n");
for (i = 0; i < 5; i++)
{
Console.WriteLine("\nStudent ID : " + s[i].studid);
Console.WriteLine("\nStudent name : " + s[i].name);
Console.WriteLine("\nCourse name : " + s[i].cname);
Console.WriteLine("\nDate of birth(dd-mm-yy) : " + s[i].day + "-" +
s[i].month +
"-" + s[i].year);
} } } }
```

Output:



D) Create an application to demonstrate following operations

1) Fibonacci Series

Code:

```
using System;
namespace ConsoleApplication3
{
class Program
{
static void Main(string[] args) {
int num1=0,num2=1,num3,num4,num,counter;
Console.Write ("Upto how many number you want fibonacci series:");
num=int.Parse(Console.ReadLine());
counter=3;
Console.Write(num1+"\t"+num2);
while(counter<=num)
{
num3 = num1 + num2;
if (counter >= num)
break;
Console.Write("\t" + num3);
num1 = num2;
num2 = num3;
counter++;
} }}
```

Output:

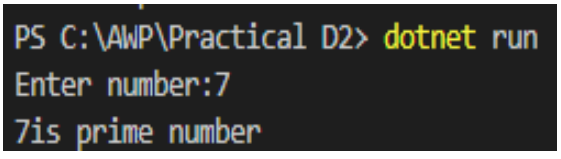
```
Time Elapsed 00:00:09.95
PS C:\AWP\Practical D1> dotnet run
Upto how many number you want fibonacci series:10
0       1       1       2       3       5       8       13      21
```

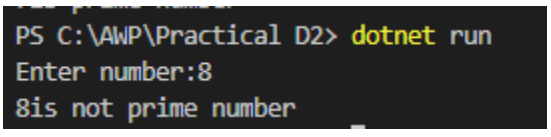
2) Test For Prime Numbers

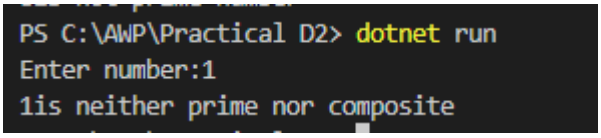
Code:

```
using System;
namespace testprime
{
class Program
{
static void Main(string[] args){
int num, counter;
Console.Write("Enter number:");
num = int.Parse(Console.ReadLine());
for (counter = 2; counter <= num / 2; counter++)
{
if ((num % counter) == 0)
break;
}
if (num == 1)
Console.WriteLine(num + "is neither prime nor composite");
else if(counter<(num/2))
Console.WriteLine(num+"is not prime number");
else
Console.WriteLine(num+"is prime number");
}}}
```

Output:







3] Test for vowels

Code:

```
using System;
namespace vowels
{
class Program
{
static void Main(string[] args)
{
char ch;
Console.Write("Enter a character : ");
ch = (char)Console.Read();
switch (ch)
{
case 'a':
case 'A':
case 'e':
case 'E':
case 'i':
case 'I':
case 'o':
case 'O':
case 'u':
case 'U':
Console.WriteLine(ch + "is vowel");
break;
default:
Console.Write(ch + "is not a vowel");
break;
}
```

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

Output:

```
PS C:\AWP\Practical D3> dotnet run
Enter a character : R
Ris not a vowel
```

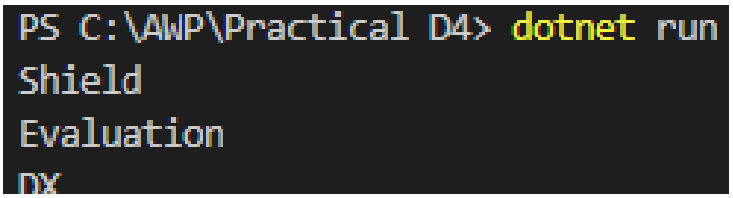
```
PS C:\AWP\Practical D3> dotnet run
Enter a character : A
Ais vowel
```

4) Use of foreach loop with arrays.

Code:

```
using System;
class ExampleForEach
{
public static void Main()
{
string[] str = { "Shield", "Evaluation", "DX" };
foreach (String s in str)
{
Console.WriteLine(s);
}
}
```

Output:



5) Reverse a number and find sum of digits of a number.

Code:

```
using System;
namespace reverseNumber
{
class Program
{
static void Main(string[] args)
{
int num,actualnumber,revnum=0,digit,sumDigits=0;
Console.Write("Enter number:");
num = int.Parse(Console.ReadLine());
actualnumber = num;
while (num > 0)
{
digit = num % 10;
revnum = revnum * 10 + digit;
sumDigits=sumDigits+digit;
num = num / 10;
}
Console.WriteLine("Reverse of " + actualnumber + "=" + revnum);
Console.WriteLine("Sum of its digits:" + sumDigits);}}}
```

Output:

```
PS C:\AWP\Practical D5> dotnet run
Enter number:14
Reverse of 14=41
Sum of its digits:5
```

Practical 2

AIM: Working with Object Oriented C# and ASP .NET

A) Create simple application to perform following operations.

1) Finding Factorial Value

Code:

```
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace factorial
{
class Program
{
static void Main(string[] args)
{
int i, number, fact;
Console.WriteLine("Enter the Number");
number = int.Parse(Console.ReadLine());
fact = number;
for (i = number - 1; i >= 1; i--)
{
fact = fact * i;
}
Console.WriteLine("\nFactorial of Given Number is: "+fact);
Console.ReadLine();
}}}
```

Output:

```
PS C:\AWP\Practical 2A 1> dotnet run
Enter the Number
3

Factorial of Given Number is: 6
```

2) Money Conversion

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace CurrencyConversion
{
class Program
{
static void Main(string[] args)
{
int choice;
Console.WriteLine(&amp;quot;Enter your Choice :\n 1- Dollar to Rupee \n 2-
Euro to Rupee \n 3- Malaysian
Ringgit to Rupee &amp;quot;);
choice = int.Parse(Console.ReadLine());
switch (choice)
{
case 1:
Double dollar, rupee, val;
Console.WriteLine(&amp;quot;Enter the Dollar Amount :&amp;quot;);
dollar = Double.Parse(Console.ReadLine());
Console.WriteLine(&amp;quot;Enter the Dollar Value :&amp;quot;);
val = double.Parse(Console.ReadLine());
rupee = dollar * val;
Console.WriteLine(&amp;quot;{0} Dollar Equals {1} Rupees&amp;quot;, dollar,
rupee);
break;
case 2:
```

```
Double Euro, rupe, valu;
Console.WriteLine(&quot;Enter the Euro Amount :&quot;);
Euro = Double.Parse(Console.ReadLine());
Console.WriteLine(&quot;Enter the Euro Value :&quot;);
valu = double.Parse(Console.ReadLine());
rupe = Euro * valu;
Console.WriteLine(&quot;{0} Euro Equals {1} Rupees&quot;, Euro, rupe);
break;
case 3:
Double ringit, rup, value;
Console.WriteLine(&quot;Enter the Ringgit Amount :&quot;);
ringit = Double.Parse(Console.ReadLine());
Console.WriteLine(&quot;Enter the Ringgit Value :&quot;);
value = double.Parse(Console.ReadLine());
rup = ringit * value;
Console.WriteLine(&quot;{0} Malaysian Ringgit Equals {1} Rupees&quot;,
ringit, rup);
break;
}
Console.ReadLine();
}}}
```

Output:

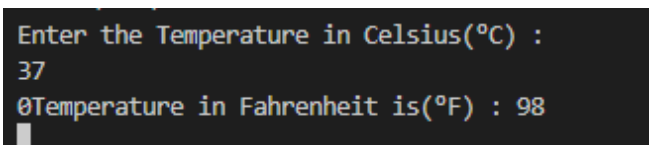
```
Time Elapsed 00:00:04.57
PS C:\AWP\Practical 2A 2> dotnet run
Enter your Choice:
1 - Dollar to Rupee
2 - Euro to Rupee
3 - Malaysian Ringgit to Rupee
1
Enter the Dollar Amount:
1
Enter the Dollar Value:
81.9
1 Dollar(s) Equals 81.9 Rupees
```

3) Temperature Converter

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace temperatureconversion
{
class Program
{
static void Main(string[] args)
{
int celsius, faren;
Console.WriteLine("Enter the Temperature in Celsius(°C) : ");
celsius = int.Parse(Console.ReadLine());
faren = (celsius * 9) / 5 + 32;
Console.WriteLine("0Temperature in Fahrenheit is(°F) : " + faren);
Console.ReadLine();
}
}
}
```

Output:



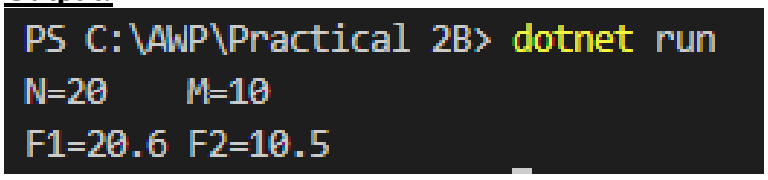
B) Create simple application to demonstrate use of following concepts.

i) Function Overloading

Code:

```
using System;
namespace swap
{
class Overloading
{
public void swap(ref int n, ref int m)
{
int t;
t = n;
n = m;
m = t;
}
public void swap(ref float f1, ref float f2)
{
float f;
f = f1;
f1 = f2;
f2 = f;
}
}
class program
{
static void Main(string[] args)
{
Overloading objOverloading = new Overloading();
int n = 10, m = 20;
objOverloading.swap(ref n, ref m);
Console.WriteLine("N=" + n + "\tM=" + m);
float f1 = 10.5f, f2 = 20.6f;
objOverloading.swap(ref f1, ref f2);
Console.WriteLine("F1=" + f1 + "\tF2=" + f2);
}}}
```

Output:



ii) Inheritance

a) Single Inheritance

Write a program to implement single inheritance from following figure. Accept and display data for one table.

Code:

Furniture.cs

```
using System;
namespace SingleInheritance
{
class Furniture
{
string material;
float price;
public void getdata()
{
Console.Write("Enter material : ");
material = Console.ReadLine();
Console.Write("Enter price : ");
price = float.Parse(Console.ReadLine());
}
public void showdata()
{
Console.WriteLine("Material : " + material);
Console.WriteLine("Price : " + price);
} } }
```

Table.cs

```
using System;
namespace SingleInheritance
{
class Table:Furniture
```

```
{
int height, surface_area;
public void getdata()
{
base.getdata();
Console.Write("Enter height: ");
height = int.Parse(Console.ReadLine());
Console.Write("Enter surface area: ");
surface_area = int.Parse(Console.ReadLine());
}
public void showdata()
{
base.showdata();
Console.WriteLine("Height : " + height);
Console.WriteLine("Surface Area : " + surface_area);
} } }
```

Program.cs

```
using System;
namespace SingleInheritance
{
class Program
{
static void Main(string[] args)
{
Table t1 = new Table();
t1.getdata();
t1.showdata();
} } }
```

Output:

```
PS C:\AWP\Practical 2B ii)a> dotnet run
Enter material: wood
Enter price: 100
Enter height: 10
Enter surface area: 10
Material: wood
Price: 100
Height: 10
Surface Area: 10
```

b) Multiple Inheritance

Code:

Gross.cs

```
using System;
namespace MultipleInheritance
{
interface Gross
{
int ta
{
get;
set;
}
int da
{
get;
set;
}
int GrossSal();
} }
```

Employee.cs

```
using System;
namespace MultipleInheritance
{
class Employee
{
string name;
public Employee(string name)
{ this.name = name; }
```

```
public int BasicSal(int basicSal)
{ return basicSal; }
public void ShowData()
{
Console.WriteLine("Name : " + name);
} } }
```

Salary.cs

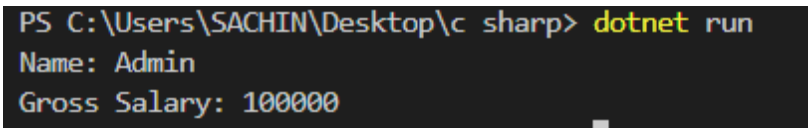
```
using System;
namespace MultipleInheritance
{
class Salary:employee,Gross
{
int hra;
public Salary(string name, int hra):base(name)
{ this.hra = hra; }
public int ta
{
get {return S_ta; }
set { S_ta = value; }
}
private int S_ta;
public int da
{
get { return S_da; }
set { S_da = value; }
}
private int S_da;
public int GrossSal()
{
int gSal;
```

```
gSal = hra + ta + da + BasicSal(15000);
return gSal;
}
public void dispSal()
{ base.ShowData();
Console.WriteLine("Gross Sal : " + GrossSal());
} } }
```

Program.cs

```
using System;
namespace MultipleInheritance
{
class Program
{
static void Main(string[] args)
{
Salary s = new Salary("Prachit", 35000);
s.da = 20000;
s.ta = 30000;
s.dispSal();
} } }
```

Output:



c) Hierarchical Inheritance

Code:

Employee.cs

```
using System;
namespace HeirarchicalInheritance
{
   class Employee
   {
      public virtual void display()
      {
         Console.WriteLine("Display of Employee class called");
      }
   }
}
```

Programmer.cs

```
using System;
namespace HeirarchicalInheritance
{
   class Programmer : Employee
   {
      public override void display()
      {
         Console.WriteLine("Display of Programmer class called");
      }
   }
}
```

Manager.cs

```
using System;
namespace HeirarchicalInheritance
```

```
{
    class Manager : Employee
    {
        public override void display()
        {
            Console.WriteLine("Display of Manager class called");
        }
    }
}
```

Program.cs

```
using System;

namespace HeirarchicalInheritance
{
    class Program
    {
        static void Main(string[] args)
        {
         Employee objEmployee;
        Console.Write("Whose details you want to use to see \n 1.Programmer \n 2.Manager: ");
            int choice = int.Parse(Console.ReadLine());
            if (choice == 1)
            {
                objEmployee = new Programmer();
                objEmployee.display();
            }
            else if (choice == 2)
            {
                objEmployee = new Manager();
                objEmployee.display();
```

```
        }
        else
        {
            Console.WriteLine("Wrong choice entered");
        }
      }
   }
}
```

Output:

```
PS C:\AWP\Practical 2B ii)c> dotnet run
Whose details you want to use to see
 1.Programmer
 2.Manager
1
 Display of Programmer class called
PS C:\AWP\Practical 2B ii)c> dotnet run
Whose details you want to use to see
 1.Programmer
 2.Manager
2
Display of manager class called
```

```
PS C:\AWP\Practical 2B ii)c> dotnet run
Whose details you want to use to see
 1.Programmer
 2.Manager
3
Wrong choice entered
```

d) Multilevel Inheritance

Code:

Result.cs

```
using System;
namespace multilevelinheritance
{
class Result:Test
{
int total;
public Result(int roll_no, string name, int marks1, int marks2)
: base(roll_no, name, marks1, marks2)
{
total = getMarks1() + getMarks2();
}
public void display()
{
base.display();
Console.WriteLine("Total: " + total);
} }}
```

Test.cs

```
using System;
namespace multilevelinheritance
{
class Test:student
{
int marks1, marks2;
public Test(int roll_no, string name, int marks1, int marks2)
: base(roll_no, name)
{
```

```
this.marks1 = marks1;
this.marks2 = marks2;
}
public int getMarks1()
{
return marks1;
}
public int getMarks2()
{
return marks2;
}
public void dispaly()
{
base.display();
Console.WriteLine("Marks1: " + marks1);
Console.WriteLine("Marks2: " + marks2);
} } }
```

Student.cs

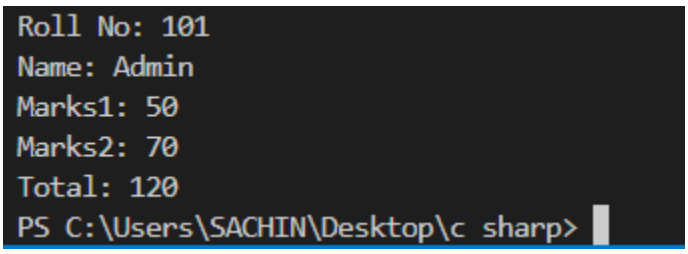
```
using System;
namespace multilevelinheritance
{
class student
{
int roll_no;
string name;
public student(int roll_no, string name)
{
this.roll_no = roll_no;
this.name = name;
}
```

```
public student() { }
public void display()
{
Console.WriteLine("Roll no: " + roll_no);
Console.WriteLine("Name: " + name);
} } }
```

Program.cs

```
using System; namespace multilevelinheritance
 {
class Program
 {
static void Main(string[] args)
{
 Result r1 = new Result(65, "Raina", 90, 90);
 r1.display(using System;
}
 }
 }
```

Output:



iii) Constructor Overloading

Code:

Salary.cs

```
using System;
namespace SalaryConstructure
{
class Salary
{
int basic, ta, da, hra;
public Salary()
{
da = 9000;
hra = 6000;
}
public void getdata()
{
Console.Write("Enter basic salary : ");
basic = int.Parse(Console.ReadLine());
Console.Write("Enter travelling allowance : ");
ta = int.Parse(Console.ReadLine());
}
public void showdata()
{
Console.WriteLine("Basic salary : " + basic);
Console.WriteLine("Dearness allowence : " + da);
Console.WriteLine("Housing rent allowence : " + hra);
Console.WriteLine("Travelling allowence : " + ta);
Console.WriteLine("Gross Salary : " + (basic + da + hra + ta));
} } }
```

Program.cs

```
using System;
namespace SalaryConstructure
{
class Program
{
static void Main(string[] args)
{
Salary s = new Salary();
s.getdata();
s.showdata();
} } }
```

Output:

```
PS C:\AWP\Practical 2B iii> dotnet run
Enter basic salary : 100000
Enter travelling allowance : 10000
Basic salary : 100000
Dearness allowence : 9000
Housing rent allowence : 6000
Travelling allowence : 10000
Gross Salary : 125000
```

iv) Interfaces

Code:

ODDEVEN.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace InterFaceDemo {
interface IOne {
 void ONE();
 }
 interface ITwo {
 void TWO();
 }
 interface IThree: IOne {
 void THREE();
 }
interface IFour {
 void FOUR();
 }
 interface IFive: IThree {
 void FIVE();
 }
 interface IEVEN: ITwo, IFour {}
 class ODDEVEN: IEVEN, IFive
 {
 public void ONE()
 {
 Console.WriteLine("This is ONE");
```

```
 }
 public void TWO() {
 Console.WriteLine("This is TWO");
 }
 public void THREE() {
 Console.WriteLine("This is THERE");
 }
 public void FOUR() {
 Console.WriteLine("This is FOUR");
}
 public void FIVE() {
 Console.WriteLine("This is FIVE");
 }
 }
}
```

Program.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace InterFaceDemo {
class Program {
 static void Main(string[] args) {
 Console.WriteLine("This is ODD");
 IFive obj1 = new ODDEVEN();
 obj1.ONE();
 obj1.THREE();
 obj1.FIVE();
 Console.WriteLine("\n\nThis is EVEN");
 IEVEN obj2 = new ODDEVEN();
```

```
 obj2.TWO();
obj2.FOUR();
 Console.ReadLine();
 }
 }
}
```

Output:

```
Time Elapsed 00:00:02.46
PS C:\AWP\Practical 2B iv> dotnet run
This is ODD
This is ONE
This is THERE
This is FIVE


This is EVEN
This is TWO
This is FOUR
```

C) Create simple application to demonstrate use of following concepts

i) Using Delegates and events

Code:

TrafficSignal.cs

```
using System;
namespace TrafficDelegateExample
{
public delegate void TrafficDel();
class TrafficSignal
{
public static void Yellow()
{
Console.WriteLine("Yellow light signals to get ready");
}
public static void Green()
{
Console.WriteLine("Green light signals to go");
}
public static void Red()
{
Console.WriteLine("Red light signals to stop");
}
TrafficDel[] td = new TrafficDel[3];
public void IdentifySignal()
{
td[0] = new TrafficDel(Yellow);
td[1] = new TrafficDel(Green);
td[2] = new TrafficDel(Red);
}
```

```
public void display()
{
td[0]();
td[1]();
td[2]();
}
} }
```

Program.cs

```
using System;
namespace TrafficDelegateExample
{
class Program
{
static void Main(string[] args)
{
TrafficSignal ts = new TrafficSignal();
ts.IdentifySignal();
ts.display();
} } }
```

Output:

```
PS C:\AWP\Practical 2C i> dotnet run
Yellow light signals to get ready
Green light signals to go
Red light signals to stop
```

Practical No.: 3

AIM: - Working with Web Forms and Controls.

A) Demonstrate the use of Calendar control to perform following operations.

a) Display messages in a calendar control

b) Display vacation in a calendar control.

c) Selected day in a calendar control using style

d) Difference between two calendar dates.

Code:

Webform1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_3a.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:Calendar ID="Calendar1" runat="server" BackColor="#FFFFCC"
         BorderColor="#FFCC66" BorderWidth="1px" DayNameFormat="Shortest"
         Font-Names="Verdana" Font-Size="8pt" ForeColor="#663399"
         Height="200px"
         NextPrevFormat="ShortMonth" OnDayRender="Calendar1_DayRender"
         ShowGridLines="True" Width="300px"
         OnSelectionChanged="Calendar1_SelectionChanged" >
            <DayHeaderStyle BackColor="#FFCC66" Font-Bold="True" Height="1px" />
            <NextPrevStyle BorderStyle="Solid" BorderWidth="2px" Font-Size="9pt"
            ForeColor="#FFFFCC" />
            <OtherMonthDayStyle BackColor="#FFCC99" BorderStyle="Solid"
            ForeColor="#CC9966" />
            <SelectedDayStyle BackColor="Red" Font-Bold="True" />
            <SelectorStyle BackColor="#FFCC66" />
            <TitleStyle BackColor="#990000" Font-Bold="True" Font-Size="9pt"
            ForeColor="#FFFFCC" />
            <TodayDayStyle BackColor="#FFCC66" ForeColor="White" />
```

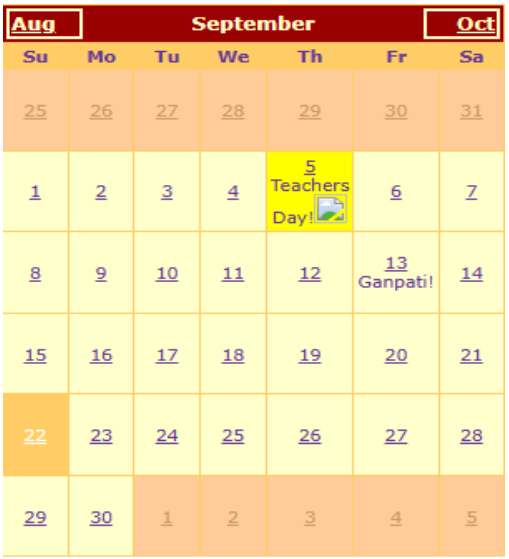
```
            <WeekendDayStyle Height="50px" />
        </asp:Calendar>
        <asp:Label ID="Label1" runat="server" Text=""></asp:Label><br />
        <asp:Label ID="Label2" runat="server" Text=""></asp:Label><br />
        <asp:Label ID="Label3" runat="server" Text=""></asp:Label><br />
        <asp:Label ID="Label4" runat="server" Text=""></asp:Label><br />
        <asp:Label ID="Label5" runat="server" Text=""></asp:Label><br />
        <asp:Button ID="btnResult" runat="server" Text="Show Result"
OnClick="btnResult_Click" />
        <asp:Button ID="btnReset" runat="server" Text="Reset" OnClick="btnReset_Click"
/>
      </div>
   </form>
</body>
</html>
```

Webform1.apsx.cs

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

namespace Practical_3a
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      protected void btnResult_Click(object sender, EventArgs e)
      {
         Calendar1.Caption = "SAMBARE";
         Calendar1.FirstDayOfWeek = FirstDayOfWeek.Sunday;
         Calendar1.NextPrevFormat = NextPrevFormat.ShortMonth;
         Calendar1.TitleFormat = TitleFormat.Month;
         Label2.Text = "Today's Date: " + Calendar1.TodaysDate.ToShortDateString();
         Label3.Text = "Ganpati Vacation Start: 9-13-2018";

         TimeSpan d = new DateTime(2018, 9, 13) - DateTime.Now;
         Label4.Text = "Days Remaining For Ganpati Vacation: " + d.Days.ToString();

         TimeSpan d1 = new DateTime(2018, 12, 31) - DateTime.Now;
         Label5.Text = "Days Remaining for New Year: " + d1.Days.ToString();

         if (Calendar1.SelectedDate.ToShortDateString() == "9-13-2018")
            Label3.Text = "<b>Ganpati Festival Start</b>";
         if (Calendar1.SelectedDate.ToShortDateString() == "9-23-2018")
            Label3.Text = "<b>Ganpati Festival End</b>";
      }

      protected void Calendar1_DayRender(object sender, DayRenderEventArgs e)
      {
         if (e.Day.Date.Day == 5 && e.Day.Date.Month == 9)
         {
```

```
            e.Cell.BackColor = System.Drawing.Color.Yellow;
            Label lbl = new Label();
            lbl.Text = "<br>Teachers Day!";
            e.Cell.Controls.Add(lbl);

            Image g1 = new Image();
            g1.ImageUrl = "td.jpg";
            g1.Height = 20;
            g1.Width = 20;
            e.Cell.Controls.Add(g1);
         }

         if (e.Day.Date.Day == 13 && e.Day.Date.Month == 9)
         {
            Calendar1.SelectedDate = new DateTime(2018, 9, 12);
            Calendar1.SelectedDates.SelectRange(Calendar1.SelectedDate,
Calendar1.SelectedDate.AddDays(10));
            Label lbl1 = new Label();
            lbl1.Text = "<br>Ganpati!";
            e.Cell.Controls.Add(lbl1);
         }
      }

      protected void btnReset_Click(object sender, EventArgs e)
      {
         Label1.Text = "";
         Label2.Text = "";
         Label3.Text = "";
         Label4.Text = "";
         Label5.Text = "";
         Calendar1.SelectedDates.Clear();
      }

      protected void Calendar1_SelectionChanged(object sender, EventArgs e)
      {
         Label1.Text = "Your Selected Date: " + Calendar1.SelectedDate.Date.ToString();
      }
   }
}
```

Output:



Aug	September					Oct
Su	Mo	Tu	We	Th	Fr	Sa
25	26	27	28	29	30	31
1	2	3	4	5 Teachers Day!	6	7
8	9	10	11	12	13 Ganpati!	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

Today's Date: 22-09-2024
Ganpati Vacation Start: 9-13-2018
Days Remaining For Ganpati Vacation: -2201
Days Remaining for New Year: -2092
Show Result Reset

Aug	September 2024					Oct
Su	Mo	Tu	We	Th	Fr	Sa
25	26	27	28	29	30	31
1	2	3	4	5 Teachers Day!	6	7
8	9	10	11	12	13 Ganpati!	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

Show Result Reset

B) Demonstrate the use of Treeview control perform following operations.

a) Treeview control and data list.

b) Treeview operations.

Add XML File Website -> Add -> XML File and Name it 'stdetail'.

Code:

stdetail.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<studentdetail>
<student>
<sid>1</sid>
<sname>Tushar</sname>
<sclass>TYIT</sclass>
</student>
<student>
<sid>2</sid>
<sname>Sonali</sname>
<sclass>TYCS</sclass>
</student>
<student>
<sid>3</sid>
<sname>Yashashree</sname>
<sclass>TYIT</sclass>
</student>
<student>
<sid>4</sid>
<sname>Vedshree</sname>
<sclass>TYCS</sclass>
</student>
</studentdetail>
```

Default2.aspx

```
<form id="form1" runat="server">
<div>
Treeview control navigation:<asp:TreeView ID = "TreeView1" runat =
"server" Width =
"150px" ImageSet="Arrows">
<HoverNodeStyle Font-Underline="True" ForeColor="#5555DD" />
<Nodes>
<asp:TreeNode Text = "ASP.NET Practs" Value = "New Node">
<asp:TreeNode Text = "Calendar Control" Value = "RED"
NavigateUrl="~/calndrCtrl.aspx">
</asp:TreeNode>
<asp:TreeNode Text = "Constructor Overloading" Value = "GREEN"
NavigateUrl="~/clsconstrc.aspx"></asp:TreeNode>
<asp:TreeNode NavigateUrl="~/singleInh.aspx" Text="Inheritance"
Value="BLUE"></asp:TreeNode>
<asp:TreeNode NavigateUrl="~/clsProp.aspx" Text="Class Properties"
Value="Class
Properties"></asp:TreeNode>
</asp:TreeNode>
</Nodes>
<NodeStyle Font-Names="Tahoma" Font-Size="10pt" ForeColor="Black"
HorizontalPadding="5px" NodeSpacing="0px" VerticalPadding="0px" />
<ParentNodeStyle Font-Bold="False" />
<SelectedNodeStyle Font-Underline="True" ForeColor="#5555DD"
HorizontalPadding="0px" VerticalPadding="0px" />
</asp:TreeView>
<br />
Fetch Datalist Using XML data : </div>
<asp:DataList ID="DataList1" runat="server">
```

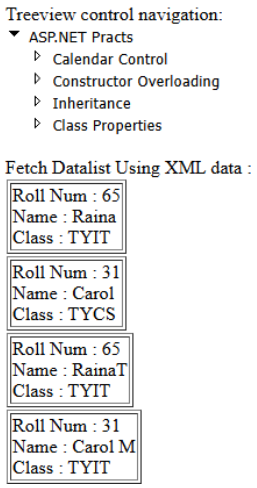
```
<ItemTemplate>
<table class = "table" border="1">
<tr>
<td>Roll Num : <%# Eval("sid") %><br />
Name : <%# Eval("sname") %><br />
Class : <%# Eval("sclass")%>
</td>
</tr>
</table>
</ItemTemplate>
</asp:DataList>
```

Default1.aspx.cs

```
using System.Data;
public partial class _Default : System.Web.UI.Page
{
protected void Page_Load(object sender, EventArgs e)
{
if (!IsPostBack)
{
BindData();
}
}
protected void BindData()
{
DataSet ds = new DataSet();
ds.ReadXml(Server.MapPath("stdetail.xml"));
if (ds != null && ds.HasChanges())
{
DataList1.DataSource = ds;
```

```
DataList1.DataBind();
}
else
{
DataList1.DataBind();
}
}
}
```

Output:



Practical No: 4

AIM: Working with form controls

A) Create an example of a registration form that demonstrates the use of various validation controls in ASP.NET

Code:

Registration.aspx

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>Registration Form</title>
   <style type="text/css">
      .form-group { margin-bottom: 15px; }
      .error { color: red; }
   </style>
</head>
<body>
   <form id="form1" runat="server">
      <h2>Registration Form</h2>

      <div class="form-group">
         <asp:Label ID="lblUsername" runat="server" Text="Username:"></asp:Label>
         <asp:TextBox ID="txtUsername" runat="server"></asp:TextBox>
         <asp:RequiredFieldValidator ID="rfvUsername" runat="server"
            ControlToValidate="txtUsername" ErrorMessage="Username is required"
            CssClass="error" Display="Dynamic"></asp:RequiredFieldValidator>
      </div>

      <div class="form-group">
         <asp:Label ID="lblEmail" runat="server" Text="Email:"></asp:Label>
         <asp:TextBox ID="txtEmail" runat="server"></asp:TextBox>
         <asp:RequiredFieldValidator ID="rfvEmail" runat="server"
            ControlToValidate="txtEmail" ErrorMessage="Email is required"
            CssClass="error" Display="Dynamic"></asp:RequiredFieldValidator>
         <asp:RegularExpressionValidator ID="revEmail" runat="server"
            ControlToValidate="txtEmail" ErrorMessage="Invalid email format"
            ValidationExpression="\w+([-+.']\w+)*@\w+([-.]\w+)*\.\w+([-.]\w+)*"
            CssClass="error" Display="Dynamic"></asp:RegularExpressionValidator>
      </div>

      <div class="form-group">
         <asp:Label ID="lblPassword" runat="server" Text="Password:"></asp:Label>
```

```
        <asp:TextBox ID="txtPassword" runat="server"
TextMode="Password"></asp:TextBox>
        <asp:RequiredFieldValidator ID="rfvPassword" runat="server"
            ControlToValidate="txtPassword" ErrorMessage="Password is required"
            CssClass="error" Display="Dynamic"></asp:RequiredFieldValidator>
    </div>

    <div class="form-group">
        <asp:Label ID="lblConfirmPassword" runat="server" Text="Confirm
Password:"></asp:Label>
        <asp:TextBox ID="txtConfirmPassword" runat="server"
TextMode="Password"></asp:TextBox>
        <asp:CompareValidator ID="cvPassword" runat="server"
            ControlToCompare="txtPassword" ControlToValidate="txtConfirmPassword"
            ErrorMessage="Passwords do not match" CssClass="error"
Display="Dynamic"></asp:CompareValidator>
    </div>

    <div class="form-group">
        <asp:Label ID="lblAge" runat="server" Text="Age:"></asp:Label>
        <asp:TextBox ID="txtAge" runat="server"></asp:TextBox>
        <asp:RangeValidator ID="rvAge" runat="server"
            ControlToValidate="txtAge" ErrorMessage="Age must be between 18 and 100"
            MinimumValue="18" MaximumValue="100" Type="Integer"
            CssClass="error" Display="Dynamic"></asp:RangeValidator>
    </div>

    <div class="form-group">
        <asp:Label ID="lblWebsite" runat="server" Text="Website:"></asp:Label>
        <asp:TextBox ID="txtWebsite" runat="server"></asp:TextBox>
        <asp:CustomValidator ID="cvWebsite" runat="server"
            ControlToValidate="txtWebsite" ErrorMessage="Invalid website URL"
            OnServerValidate="cvWebsite_ServerValidate"
            CssClass="error" Display="Dynamic"></asp:CustomValidator>
    </div>

    <asp:Button ID="btnSubmit" runat="server" Text="Submit"
OnClick="btnSubmit_Click" />

    <asp:ValidationSummary ID="ValidationSummary1" runat="server"
        HeaderText="Please correct the following errors:"
        ShowMessageBox="true" ShowSummary="false" />
  </form>
</body>
</html>
```

Registration.aspx.cs

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

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

      protected void btnSubmit_Click(object sender, EventArgs e)
      {
         if (Page.IsValid)
         {
            // Process the form submission
            Response.Write("Registration successful!");
         }
      }

      protected void cvWebsite_ServerValidate(object source, ServerValidateEventArgs args)
      {
         try
         {
            Uri uri = new Uri(args.Value);
            args.IsValid = (uri.Scheme == Uri.UriSchemeHttp || uri.Scheme ==
Uri.UriSchemeHttps);
         }
         catch
         {
            args.IsValid = false;
         }
      }}}
```

Output:

B) Create a web form to demonstrate the AdRotator Control.

Code:

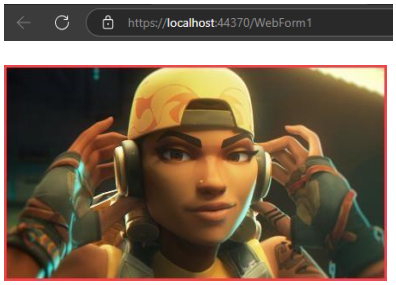
XML File

```
<Advertisements>
<Ad>
<ImageUrl>rose1.jpg</ImageUrl>
<NavigateUrl>http://www.1800flowers.com</NavigateUrl>
<AlternateText>
Order flowers, roses, gifts and more
</AlternateText>
<Impressions>20</Impressions>
<Keyword>flowers</Keyword>
</Ad>
<Ad>
<ImageUrl>rose2.jpg</ImageUrl>
<NavigateUrl>http://www.babybouquets.com.au</NavigateUrl>
<AlternateText>Order roses and flowers</AlternateText>
<Impressions>20</Impressions>
<Keyword>gifts</Keyword>
</Ad>
<Ad>
<ImageUrl>rose3.jpeg</ImageUrl>
<NavigateUrl>http://www.flowers2moscow.com</NavigateUrl>
<AlternateText>Send flowers to Russia</AlternateText>
<Impressions>20</Impressions>
<Keyword>russia</Keyword>
</Ad>
</Advertisements>
```

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication1.WebForm1" %>

<!DOCTYPE html>

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

<head runat="server">

    <title>Advertisements</title>

</head>

<body>

    <form id="form1" runat="server">

        <div>

    <asp:AdRotator ID="AdRotator1" runat="server" DataSourceID="XmlDataSource1" />

    <asp:XmlDataSource ID="XmlDataSource1" runat="server" DataFile="~/ADFile.xml" />

        </div>

    </form>

</body>

</html>
```

Output:



C) **Create web form to demonstrate use User Controls**

Code:

LoginControl.ascx:

```
<%@ Control Language="C#" AutoEventWireup="true"
CodeBehind="LoginControl.ascx.cs" Inherits="YourNamespace.LoginControl" %>

<div>
   <h2>Login</h2>
   <div>
      <label for="txtUsername">Username:</label>
      <asp:TextBox ID="txtUsername" runat="server"></asp:TextBox>
   </div>
   <div>
      <label for="txtPassword">Password:</label>
      <asp:TextBox ID="txtPassword" runat="server"
TextMode="Password"></asp:TextBox>
   </div>
   <div>
      <asp:Button ID="btnLogin" runat="server" Text="Login" OnClick="btnLogin_Click"
/>
   </div>
   <asp:Label ID="lblMessage" runat="server" ForeColor="Red"></asp:Label>
</div>
```

Add code-behind for LoginControl.ascx.cs:

```
using System;

namespace YourNamespace
{
   public partial class LoginControl : System.Web.UI.UserControl
   {
      protected void Page_Load(object sender, EventArgs e)
      {

      }

      protected void btnLogin_Click(object sender, EventArgs e)
      {
         if (txtUsername.Text == "admin" && txtPassword.Text == "password")
         {
            lblMessage.Text = "Login successful!";
         }
         else
         {
            lblMessage.Text = "Invalid username or password.”
```

```
        }
    }
  }
}
```

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Default.aspx.cs"
Inherits="YourNamespace.Default" %>
<%@ Register Src="~/LoginControl.ascx" TagPrefix="uc" TagName="LoginControl" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title>User Control Demo</title>
</head>
<body>
  <form id="form1" runat="server">
    <div>
      <h1>Welcome to User Control Demo</h1>
      <uc:LoginControl runat="server" ID="LoginControl" />
    </div>
  </form>
</body>
</html>
```

Output:

Welcome to User Control Demo

Login

Username: raina
Password:
Login
Login successful!

Welcome to User Control Demo

Login

Username: raina
Password:
Login
Invalid username or password

Practical No: 5

Create Web Form to demonstrate use of Website Navigation controls and Site Map.

A) Create a web application to demonstrate use of Master Page with applying Styles and Themes for page beautification.

Code:

Web.sitemap file:

```
<?xml version="1.0" encoding="utf-8" ?>
<siteMap xmlns="http://schemas.microsoft.com/AspNet/SiteMap-File-1.0" >
  <siteMapNode url="~/Default.aspx" title="Home"  description="Home page">
    <siteMapNode url="~/About.aspx" title="About"  description="About page" />
    <siteMapNode url="~/Contact.aspx" title="Contact"  description="Contact page" />
    <siteMapNode url="~/Products.aspx" title="Products"  description="Products page">
      <siteMapNode url="~/Product1.aspx" title="Product 1"  description="Product 1 page" />
      <siteMapNode url="~/Product2.aspx" title="Product 2"  description="Product 2 page" />
    </siteMapNode>
  </siteMapNode>
</siteMap>
```

Site.Master file:

```
<%@ Master Language="C#" AutoEventWireup="true" CodeBehind="Site1.master.cs"
Inherits="Pract5A.Site1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <asp:ContentPlaceHolder ID="head" runat="server">
    </asp:ContentPlaceHolder>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Menu ID="NavigationMenu" runat="server"
DataSourceID="SiteMapDataSource1" Orientation="Horizontal">
            </asp:Menu>
            <asp:SiteMapDataSource ID="SiteMapDataSource1" runat="server" />

            <asp:SiteMapPath ID="SiteMapPath1" runat="server">
            </asp:SiteMapPath>

            <asp:ContentPlaceHolder ID="MainContent" runat="server">
```

```
        </asp:ContentPlaceHolder>

        <asp:TreeView ID="TreeView1" runat="server"
DataSourceID="SiteMapDataSource1">
        </asp:TreeView>
      </div>
   </form>
</body>
</html>
```

WebForm1.aspx

```
<%@ Page Language="C#" MasterPageFile="~/Site1.Master" AutoEventWireup="true"
CodeBehind="WebForm1.aspx.cs" Inherits="Pract5A.WebForm1" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="MainContent" runat="server">
   <h1>Welcome to the Home Page</h1>
   <p>This is the main content of the home page.</p>
</asp:Content>
```

Product1.aspx

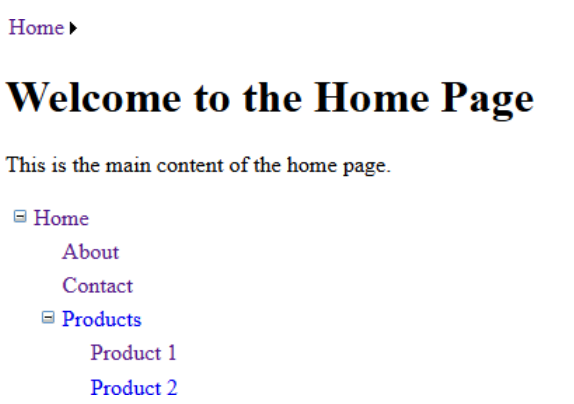
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Product1.aspx.cs"
Inherits="Pract5A.Product1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
      <div>
         <h1>This is Product Page</h1>
      </div>
   </form>
</body>
</html>
```

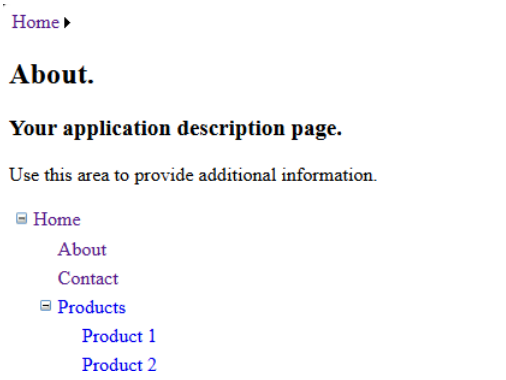
Product2.aspx

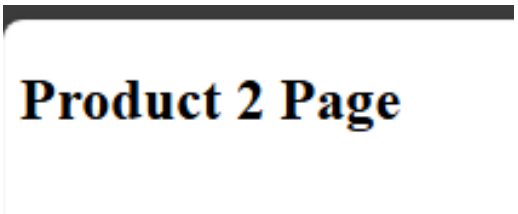
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Product2.aspx.cs"
Inherits="Pract5A.Product2" %>

<!DOCTYPE html>
```

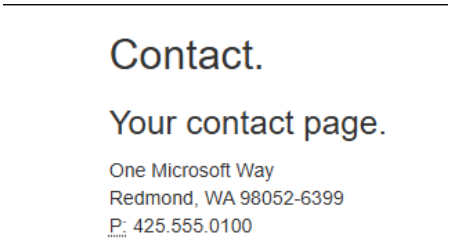
```
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h2>Product 2 Page</h2>
        </div>
    </form>
</body>
</html>
```

Output:









B) Create a web application to demonstrate use of Master Page with applying Styles and Themes for page beautification.

Code:

Master1.master

```
<%@ Master Language="C#" AutoEventWireup="true" CodeBehind="Site1.master.cs" Inherits="prac5b.Site1" %>

<!DOCTYPE html>

<html>

<head runat="server">

    <title></title>

    <asp:ContentPlaceHolder ID="head" runat="server">

    </asp:ContentPlaceHolder>

</head>

<body>

    <link href="StyleSheet1.css" rel="stylesheet" type="text/css" />

    <form id="form1" runat="server">

        <div>

            <asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">

            </asp:ContentPlaceHolder>

        </div>

    </form>

</body>

</html>
```

WebForm1.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="~/Site1.Master" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs" Inherits="prac5b.WebForm1" Theme ="Skin1"%>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
```

```
    <asp:Label ID="Label1" runat="server" SkinId="lbl" Text="Select The
date"></asp:Label>

    <asp:Calendar ID="Calendar1" runat="server"></asp:Calendar>

    <br />

    <asp:HyperLink ID="HyperLink1" runat="server"
NavigateUrl="~/WebForm2.aspx">Next</asp:HyperLink>

</asp:Content>
```

WebForm2.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="~/Site1.Master"
AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs" Inherits="prac5b.WebForm2"
Theme="Skin1" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">

    <p>

        <br />

        <asp:Label ID="Label1" runat="server" Text="Label" SkinId="lbl"></asp:Label>

    </p>

    <p>

        <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>

    </p>

    </asp:Content>
```

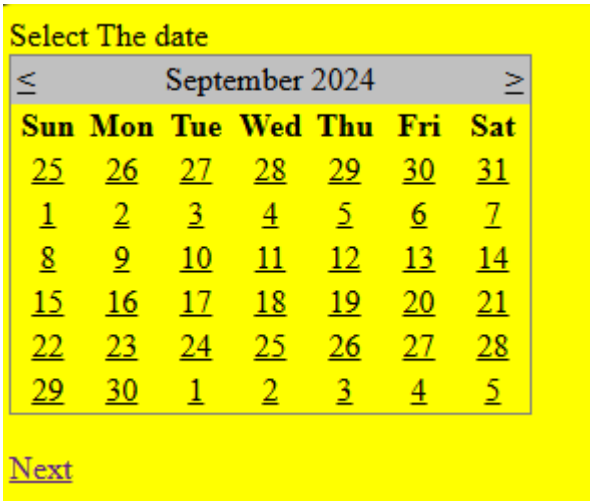
Skin1.skin

```
<asp:Label runat="server" SkinId="lbl" backcolor="blue"/>
```

StyleSheet1.css

```
body {

    background-color: gray;

    font:italic;

}
```

Output:


Select The date
≤ September 2024 ≥
Sun Mon Tue Wed Thu Fri Sat
25 26 27 28 29 30 31
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 1 2 3 4 5
Next

C) Create a web application to demonstrate various states of ASP.NET Pages

i) View State

Code:

WebForm1.aspx

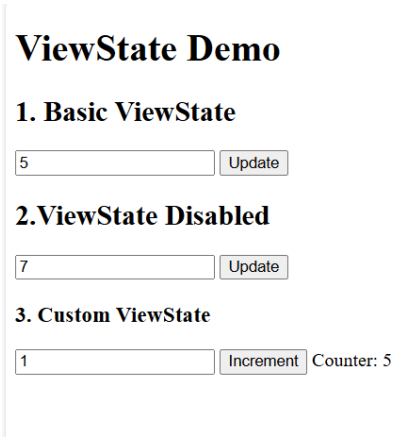
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_5c.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>ViewState Demo</title>
</head>
<body>
   <form id="form1" runat="server">
      <div>
         <h1> ViewState Demo</h1>
         <h2>1. Basic ViewState</h2>
         <asp:TextBox ID="txtBasic" runat="server"></asp:TextBox>
         <asp:Button ID="btnBasic" runat="server" Text="Update"
OnClick="btnBasic_Click"/>
         <asp:Label ID="lblBasic" runat="server"></asp:Label>

         <h2>2.ViewState Disabled</h2>
         <asp:TextBox ID="txtDisabled" runat="server"
EnableViewState="false"></asp:TextBox>
         <asp:Button ID="btnDisabled" runat="server" Text="Update"
OnClick="btnDisabled_Click" />
         <asp:Label ID="lblDisabled" runat="server"></asp:Label>

         <h3>3. Custom ViewState</h3>
         <asp:TextBox ID="txtCustom" runat="server" ></asp:TextBox>
         <asp:Button ID="btnCustom" runat="server" Text="Increment"
OnClick="btnCustom_Click" />
         <asp:Label ID="lblCustom" runat="server"></asp:Label>

      </div>
   </form>
</body>
</html>
```

WebForm1.aspx.cs

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

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

namespace Practical_5c
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      protected void Page_Load(object sender, EventArgs e)
      {
         if(!IsPostBack)
         {
            ViewState["Counter"] = 0;
         }
      }
      protected void btnBasic_Click(object sender, EventArgs e)
      {
         lblBasic.Text = $"You entered: {txtBasic.Text}";
      }
      protected void btnDisabled_Click(object sender, EventArgs e)
      {
         lblDisabled.Text = $"You entered: {txtDisabled.Text}";
      }
      protected void btnCustom_Click(object sender, EventArgs e)
      {
         int counter = (int)ViewState["Counter"];
         counter++;
         ViewState["Counter"] = counter;
         lblCustom.Text = $"Counter: {counter}";
      }
   }
}
```

Output:



i)

ii) Session State

Code:

WebForm1.aspx

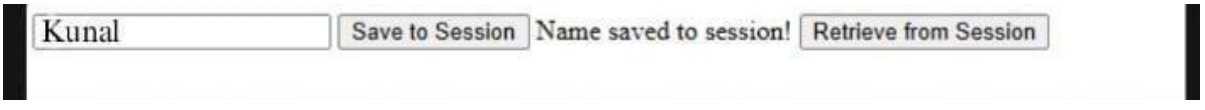
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs" Inherits="Practical_5c._2.WebForm1" %>

<!DOCTYPE html>

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

<head runat="server">

    <title>Session State Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <div>

            <asp:TextBox ID="txtName" runat="server"></asp:TextBox>

            <asp:Button ID="btnSaveSession" runat="server" Text="Save to Session" OnClick="btnSaveSession_Click"/>

            <asp:Label ID="lblSessionResult" runat="server"></asp:Label>

            <asp:Button ID="btnRetrieveSession" runat="server" Text="Retrieve from Session" OnClick="btnRetrieveSession_Click" />

        </div>

    </form>

</body>

</html>
```

WebForm1.aspx.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;
```

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


namespace Practical_5c._2
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      protected void btnSaveSession_Click(object sender, EventArgs e)
      {
         Session["UserName"] = txtName.Text;
         lblSessionResult.Text = "Name saved to session!";


      }
      protected void btnRetrieveSession_Click(object sender, EventArgs e)
      {
         if(Session["UserName"] != null)
         {
            lblSessionResult.Text = "Stored Name: " + Session["UserName"].ToString();
         }
         else
         {
            lblSessionResult.Text = "No name found in session";
         }
      }}}
```

Output:



Practical 6

AIM: Demonstrate the use of DataList link Control

Code:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs" Inherits="prac6_c.WebForm1" %>

<!DOCTYPE html>

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

<head runat="server">

    <title></title>

</head>

<body>

    <form id="form1" runat="server">

        <div>

            <h2>Book List</h2>

            <asp:DataList ID="dlBooks" runat="server" RepeatColumns="2">

                <ItemTemplate>

                    <div style="margin-bottom: 10px; padding: 10px; border:1px solid #ccc;">

                        <h3><%#Eval("Title") %></h3>

                        <p>Author: <%#Eval("Author") %></p>

                        <p>Price: $<%# Eval("Price", "{0:F2}") %></p>

                        <p>Price: $<%# Eval("Price", "{0:F2}") %></p>

                    </div>

                </ItemTemplate>

            </asp:DataList>

        </div>
```

Default.aspx.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;
```

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

namespace prac6_c
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            if (!IsPostBack)
            {
                BindDataList();
            }
        }
        private void BindDataList()
        {
            List<Book> books = new List<Book>
            {
                new Book { Title = "The Great Gatsby", Author = "F. Scott Fitzgerald", Price =
12.99m},
                new Book { Title = "To Kill a MockingBird", Author = "George Orwell", Price =
11.99m},
                new Book { Title = "Pride and Prejudice", Author = "Jane Austen", Price = 9.99m}
            };
            dlBooks.DataSource = books;
            dlBooks.DataBind();
        }
    }
    public class Book
    {
        public string Title { get; set; }
        public string Author { get; set; }
        public decimal Price { get; set; }
```

```
    }
}
    </form>
</body>
</html>
```

Output:

Book List

The Great Gatsby Author: F. Scott Fitzgerald Price: $12.99	1984 Author: George Orwell Price: $11.99
To Kill a MockingBird Author: Harper Lee Price: $14.99	Pride and Prejudice Author: Jane Austenn Price: $9.99

Practical 7

AIM: Working with Database

A) Create a web application for inserting and deleting record from a database (Using Execute Non-Query)

Code:

Default.aspx

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

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>Database Operations</title>
</head>
<body>
   <form id="form1" runat="server">
      <div>
         <h2>Insert Record</h2>
         <asp:TextBox ID="txtName" runat="server" placeholder="Name"></asp:TextBox>
         <asp:TextBox ID="txtEmail" runat="server" placeholder="Email"></asp:TextBox>
         <asp:Button ID="btnInsert" runat="server" Text="Insert" OnClick="btnInsert_Click"
/>

         <h2>Delete Record</h2>
         <asp:TextBox ID="txtId" runat="server" placeholder="ID"></asp:TextBox>
         <asp:Button ID="btnDelete" runat="server" Text="Delete"
OnClick="btnDelete_Click" />

         <h2>Records</h2>
         <asp:GridView ID="gvRecords" runat="server"
AutoGenerateColumns="true"></asp:GridView>
      </div>
   </form>
</body>
</html>
```

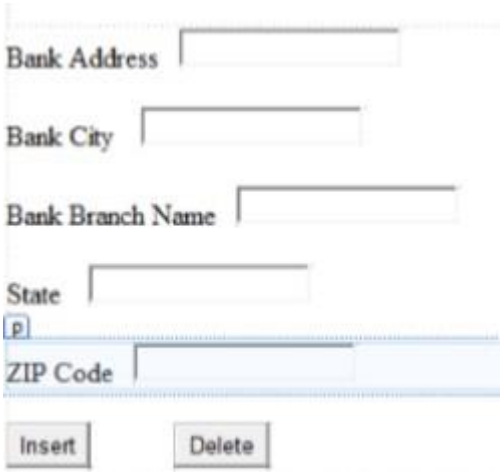
Default.aspx.cs

```
using System;
using System.Configuration;
using System.Data;
using System.Data.SqlClient;
using System.Web.UI;

namespace DatabaseWebApp
```

```
{
    public partial class Default : Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            if (!IsPostBack)
            {
                BindGridView();
            }
        }

        protected void btnInsert_Click(object sender, EventArgs e)
        {
            string name = txtName.Text;
            string email = txtEmail.Text;

            string query = "INSERT INTO Users (Name, Email) VALUES (@Name, @Email)";
            ExecuteNonQuery(query, new SqlParameter("@Name", name), new
SqlParameter("@Email", email));

            BindGridView();
            ClearInputs();
        }

        protected void btnDelete_Click(object sender, EventArgs e)
        {
            int id;
            if (int.TryParse(txtId.Text, out id))
            {
                string query = "DELETE FROM Users WHERE Id = @Id";
                ExecuteNonQuery(query, new SqlParameter("@Id", id));

                BindGridView();
                ClearInputs();
            }
        }

        private void ExecuteNonQuery(string query, params SqlParameter[] parameters)
        {
            string connectionString =
ConfigurationManager.ConnectionStrings["DefaultConnection"].ConnectionString;

            using (SqlConnection connection = new SqlConnection(connectionString))
            {
                using (SqlCommand command = new SqlCommand(query, connection))
                {
                    command.Parameters.AddRange(parameters);
                    connection.Open();
                    command.ExecuteNonQuery();
                }
```

```
        }
    }

    private void BindGridView()
    {
        string connectionString =
ConfigurationManager.ConnectionStrings["DefaultConnection"].ConnectionString;
        string query = "SELECT * FROM Users";

        using (SqlConnection connection = new SqlConnection(connectionString))
        {
            using (SqlCommand command = new SqlCommand(query, connection))
            {
                connection.Open();
                SqlDataAdapter adapter = new SqlDataAdapter(command);
                DataTable dt = new DataTable();
                adapter.Fill(dt);
                gvRecords.DataSource = dt;
                gvRecords.DataBind();
            }
        }
    }

    private void ClearInputs()
    {
        txtName.Text = string.Empty;
        txtEmail.Text = string.Empty;
        txtId.Text = string.Empty;
    }
  }
}
```

Output:



Practical No 8

Aim: Create a web application to demonstrate the use of Ajax Controls

Code:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication7.WebForm1" %>

<!DOCTYPE html>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title>Simple AJAX Demo</title>
</head>
<body>
   <form id="form1" runat="server">
      <asp:ScriptManager ID="ScriptManager1" runat="server"></asp:ScriptManager>

      <div>
         <h1>Simple AJAX Demo</h1>

         <h2>1. UpdatePanel Example</h2>
         <asp:UpdatePanel ID="UpdatePanel1" runat="server">
            <ContentTemplate>
               <asp:Label ID="lblTime" runat="server" Text=""></asp:Label><br />
               <asp:Button ID="btnUpdateTime" runat="server" Text="Update Time"
OnClick="btnUpdateTime_Click" />
            </ContentTemplate>
         </asp:UpdatePanel>


      </div>
   </form>
</body>
</html>
```

Default.aspx.cs

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

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

namespace WebApplication7
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      protected void Page_Load(object sender, EventArgs e)
      {

      }
      protected void btnUpdateTime_Click(object sender, EventArgs e)
      {
         lblTime.Text = "Current time:" + DateTime.Now.ToString("HH:mm:ss");
      }
      }
   }
```

Output: