***Assignment no-1**

# Program to show how to accept runtime string in c#.net

```
using System;
namespace HelloWorld
{
class Program
  {
    static void Main(string[] args)
    {
      Console.WriteLine("Enter The Word ");
      String n1=Console.ReadLine();
      Console.WriteLine("How Many Times ");
      int no1=Convert.ToInt32(Console.ReadLine());
      for(int i=1;i<=no1;i++)
      {
         Console.WriteLine("\n "+n1);
      }
    }
  }
}
```

Output:-

```
Enter The Word
hello
How Many Times
2
 hello
 hello
```

***Assignment no-2**

# Program to print “Teach one,Each one,Tree one” for given number of times.

```
using System;
public class While
          {
            public static void Main()
                    {
                              int i;
                              int n;
                              Console.WriteLine("Enter A Number:- ");
                              n = Convert.ToInt32(Console.ReadLine());
                              for(i=1;i<=n;i++)
                              {
                                        Console.WriteLine("Teach One,Each One,Tree One");
                                        }
                              Console.ReadLine();
                              }
          }
```

Output:-

```
Enter A Number:-
2
Teach One,Each One,Tree One
Teach One,Each One,Tree One
```

Assignment no-3

# Program to demonstrate Arithmetic Operators in c#.net

```
using System;
public class operaters
{
static public void Main()
{
int a,b,c;

Console.WriteLine("Enter value of a=");
a=Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Enter value of b=");
b=Convert.ToInt32(Console.ReadLine());

c=a+b;
Console.WriteLine("Addition of a and b="+c);
Console.ReadLine();

c=a-b;
Console.WriteLine("Substraction of a and b ="+c);
Console.ReadLine();

c=a/b;
Console.WriteLine("Division of a and b ="+c);
Console.ReadLine();

c=a*b;
Console.WriteLine("Multiplication of a and b="+c);
Console.ReadLine();

c=a%b;

Console.WriteLine("Modulation of a and b="+c);
Console.ReadLine();
}
}
```

Output:-

```
Enter value of a=
10
Enter value of b=
30
Addition of a and b=40

Substraction of a and b =-20

Division of a and b =0

Multiplication of a and b=300

Modulation of a and b=10
```

***Assignment no-4**

# Program to demonstrate inheritance in c#.net

```
using System;
namespace CSharp_Shell
{
    public class stud
 {
 public string Class="sybca";
  public string name="Anjali";
  }
 public class exam:stud
 {
  public string s1="C#";
   public string s2="audit";
   public string s3="rdbms";
    }
   public class result:exam
   {
   public int sc=20;
  public int sa=30;
  public int sr=40;
  public static void Main(string[] args)
{
            result r=new result();
        Console.WriteLine(r.Class);
            Console.WriteLine(r.name);
            Console.WriteLine(r.s1);
Console.WriteLine(r.s2);
            Console.WriteLine(r.s3);
         Console.WriteLine(r.sc);
            Console.WriteLine(r.sa);
          Console.WriteLine(r.sr);
            Console.ReadLine();
    }
    }
}
```

Output:=

```
sybca
Anjali
C#
audit
rdbms
20
30
40
```

Assignment no-5

# Program To demonstrate simple inheritance in c#.net.

```
using system;

class student
  {
     public void baseclass()
     {
        Console.WriteLine("Base class");
     }


  }


  class Program:student
  {
     public void deriveclass()
     {
        Console.WriteLine("Derived class ");
     }
     static void Main(string[] args)
     {
        Program p = new Program();
        p.baseclass();
        p.deriveclass();
        Console.ReadLine();
     }
  }
```

Output:-

```
Base class
Derived class
```

*Assignment no-6

#program to demonstrate multiple inheritance.

```
using System;



class student
    {
        public void baseclass()
        {
            Console.WriteLine("Base class");
        }


    }
    interface exam
    {
         void interfacemethod();


    }
    class Program:student,exam
    {
        public void deriveclass2()
        {
            Console.WriteLine("Derived class of student");
        }
        public void interfacemethod()
        {
            Console.WriteLine("interface method");
        }
        static void Main(string[] args)
        {
            Program p = new Program();
            p.baseclass();
            p.interfacemethod();
            p.deriveclass2();
            Console.ReadLine();
        }
    }
```

Outpur:-

```
Base class
interface method
Derived class of student
```

Assignment no-7

# program to demonstrate use of polymorphism in c#.net.

```
using System;
Namespace CSharp_Shell
{     Public class Program
            {
            Void add(int a,int b)
            {
            Int c=a+b;
            Console.WriteLine("Addition of a and b="+c);
            }
            Void add(int a,int b,int c)
            {
            Int c1=a+b+c;
            Console.WriteLine("Addition of a.b and c="+c1);
            }
        Public static void Main(string [] args)
        {                         Program p=new Program();
                                  p.add(10,20);
                                  p.add(10,20,30);
                                  Console.ReadLine();
        }
    }
  }
```

Output:-

```
Addition of a and b=30
Addition of a.b and c=60
```

***Assignment no-8**

# Program to demonstrate function definition and function call in c#.net.

```
using System;
namespace CSharp_Shell
{
  public class Program
    {
     void print()
             {
             Console.WriteLine("hello");
             }
        public static void Main()
        {
             Program p=new Program();
           p.print();
           Console.ReadLine();
        }
   }
  }
```

Output:-

```
Hello
```

***Assignment no-9**

# program to demonstrate parameterize function in c#.net.

```
using System;
namespace CSharp_Shell
{
      Public class Program
  {
  Int x=0;
  Void print(int x,int y)
       {
              x=x+y;
       Console.WriteLine(x);
       }
     Public static void Main()
   {
       Program p=new Program();
      p.print(5,5);
      }
 }
 }
```

Output:-

```
10
```

***Assignment no-10**

# Program to show table of given number using while loop.

```
using System;
public class PrintWorld
{
   public  static void Main()
             {
             int i =1;
             int n;
             Console.WriteLine("Enter A Number");
         n = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("table of given number");
          while  (i <= 10)
               {
                         Console.WriteLine( n * i);
                          i++;
            }
          Console.ReadLine();
     }
  }
```

Output:-

```
Enter A Number
3
table of given number
3
6
9
12
15
18
21
24
27
30
```

Assignment no-11

# program to demonstrate while loop in c#.net show series of given number.

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
        public static void Main()
        {
                                int i=1,n;

                                Console.WriteLine("Enter a number:-");

                         n=Convert.ToInt32(Console.ReadLine());
                         Console.WriteLine("seris of 1 to 10 in for loop:-");
                         while(i<=n)
                         {
                                Console.WriteLine(i);
                                i++;
                         }
                            Console.ReadLine();
        }
    }
  }
```

Output:-

```
Enter a number:-
3
seris of 1 to 10 in for loop:-
1
2
3
```

```
4
5
6
7
8
9
10
```

Assignment no-12

# program to demonstrate for loop in c#.net show series of given number.

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
        public static void Main()
        {   int i,n;
                                Console.WriteLine("Enter a number:-");
                         n=Convert.ToInt32(Console.ReadLine());
                         Console.WriteLine("seris of 1 to 10 in for loop:-");
                         for(i=1;i<=n;i++)
                         {
                                Console.WriteLine(i);
                         }                  Console.ReadLine();
   }
   }
   }
```

Output:-

```
Enter a number:-
4
seris of 1 to 10 in for loop:-
1
2
3
```

```
4
5
6
7
8
9
10
```

***Assignment no-13**

# Demonstration of continue statement in for loop

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
        public static void Main()
        {
             for(int x = 1; x <= 12; x++)
    {
         if (x == 3)
           {
               continue;
            }
            Console.WriteLine(x);

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

```
  }
```

Output:-

```
1
2
4
5
6
7
8
9
10
11
12
```

Assignment no-14

# demonstration of continue statement in while loop.

```
using System;
namespace CSharp_Shell
{
    public static class Program
    {
        public static void Main()
        {
           int i=1;
           while(i<=12)
           {
             i++;
           if(i==5)
           {
             continue;
           }
            Console.WriteLine(i);
           }
        }
    }
}
```

Output:-

```
1
2
4
5
6
7
8
9
10
11
12
```

Assignment no-15

# Program to show first 3 even numbers in for loop.

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
        public static void Main()
        {
                                int i;
                                int n;
                                Console.WriteLine("Enter a number:-");
                       n=Convert.ToInt32(Console.ReadLine());
                       Console.WriteLine("first 3 even numbers of given number in for loop:-");
                        for(i=1;i<=6;i++)
                       {
                           {
                                if(i%2==0)
                                {
                                Console.WriteLine(i);
                           }
```

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

Output:-

```
Enter a number:-
6
first 3 even numbers of given number in for loop:-
2
4
6
```

//*Assignment no-16

//# Program to demonstrate if else statement in c#.net.

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
        public static void Main()
        {
                               int age;
                               Console.WriteLine("Entet age of candidate");
                               age=Convert.ToInt32(Console.ReadLine());

                               if(age>=18)
                               {
                                   Console.WriteLine("Eligible for vote");
                               }
                               else
                               {
                         Console.WriteLine("Not eligible for vote");
                               }
```

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

Output:-

```
Entet age of candidate
18
Eligible for vote
```

***Assignment no-17**

# Program to demonstrate default constructor and parameterize constructor in c#.net

```
using System;

class Program
    {
        Program() // Non Paramiterize Constrctor
        {
            Console.WriteLine("Non Paramiterize Constrctor");
        }
        Program(string name) // Paramiterize Constrctor
        {
            Console.WriteLine("My Name is: "+name);
        }
        static void Main(string[] args)
        {
            Program p = new Program();
            Program p2 = new Program("Bhupesh");
            Console.ReadLine();
        }
    }
```

Output:-

```
Non Paramiterize Constrctor
My Name is: Bhupesh
```

*Assignment no-18

#Program to demonstrate destructor in c#.net.

```
using System;
class Program
{
    Program()
    {
        Console.WriteLine("Constructor called");
    }
    ~Program()
    {
        Console.WriteLine("Destructor invoke");
    }
    public static void Main()
    {
        Program p = new Program();
        Console.ReadLine();
    }
}
```

Output:-

```
Constructor called
```

***Assignment no-19**

# program to show function overriding in c#.net.

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
            public virtual void showinfo()
            {
                        Console.WriteLine("base class method");
            }
    }
    class b:Program
    {
            public override void showinfo()
            {
                        Console.WriteLine("derived class method");
            }

        public static void Main()
        {
            b B1 = new b();
                            B1.showinfo();
                            B1.showinfo();
            Console.ReadLine();
        }
    }
}
```

Output:-

```
derived class method
derived class method
```

***Assignment no-20**

# Program to demonstrate array in c#.net.

```
using System;
namespace array
{
    public class Array
    {
        public static void Main()
        {
             int num;
           int [] a={1,2,3,4,5,6};
           Console.WriteLine("enter any number:-");
           num=Convert.ToInt32(Console.ReadLine());
           if(num==a[0])
          {              Console.WriteLine("true");
          }
          else          if(num==a[1])
          {        Console.WriteLine("true");
          }
          else          if(num==a[2])
             {                       Console.WriteLine("true");
          }
        else          if(num==a[3])
          {               Console.WriteLine("true");
          }
        else          if(num==a[4])
          {               Console.WriteLine("true");
          }
          else if(num==a[5])
          {               Console.WriteLine("true");
        }
       else
        {
        Console.WriteLine("false");
        }
         Console.ReadLine();
      }
    }
  }
```

Output:-

```
enter any number:-
5
True
```

***Assignment no-21**

# Program to show maximum and minimum number in an array.

```
using System;
namespace CSharp_Shell
{
    public static class Program
    {
        public static void Main()
        {
           int [] a={12,34,56,78,89};
           int i,max,min;
           max=a[0];
           min=a[0];
           for(i=1;i<5;i++)
           {
               if(a[i]>max)
           {
             max=a[i];
           }

           if(a[i]<min)
```

```
          {
           min=a[i];
          }
          }
          Console.WriteLine("Maximum number:-"+max);
          Console.WriteLine("Minimum number:-"+min);
          Console.ReadLine();
        }
    }
}
```

Output:-

```
Maximum number:-89
Minimum number:-12
```

***Assignment no-22**

# Program to demonstrate call by value in c#.net.

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
           void get(int x)
           {
           x=10;
           Console.WriteLine(x);
           }
        public static void Main()
        {
                                int x=20;
                                    Program p=new Program();
                                    Console.WriteLine("before function call:-"+x);
                                    p.get(x);
                                    Console.WriteLine("after function call:-"+x);
            Console.ReadLine();
        }
```

```
   }
  }
```

Output:-

```
before function call:-20
10
after function call:-20
```

***Assignment no-23**

# Program to demonstrate call by value in c#.net.

```
using System;
namespace CSharp_Shell
{
    public class Program
    {
            void get(ref int x)
            {
            x=10;
            Console.WriteLine(x);
            }
        public static void Main()
        {
                                int x=20;
                                    Program p=new Program();
                                    Console.WriteLine("before function call:-"+x);
                                    p.get(ref x);
                                    Console.WriteLine("after function call:-"+x);
            Console.ReadLine();
        }
```

```
   }
  }
```

Output:-

```
before function call:-20
10
after function call:-10
```

***Assignment no-24**

#Program to demonstrate exception handling in c#.net.

```
using System;

        class Program
        {

            static void Main(string[] args)
            {

                Console.WriteLine("Enter First Number ");
                int n1 = int.Parse(Console.ReadLine());
                Console.WriteLine("Enter Second Number ");
                int n2 = int.Parse(Console.ReadLine());
                try
                {
                    int result = n1 / n2;
                }
                catch (DivideByZeroException e)
                {
                    Console.WriteLine("integer divide by 0 exception");
                    Console.WriteLine(e.Message);
                }

                Console.ReadLine();
            }
        }
```

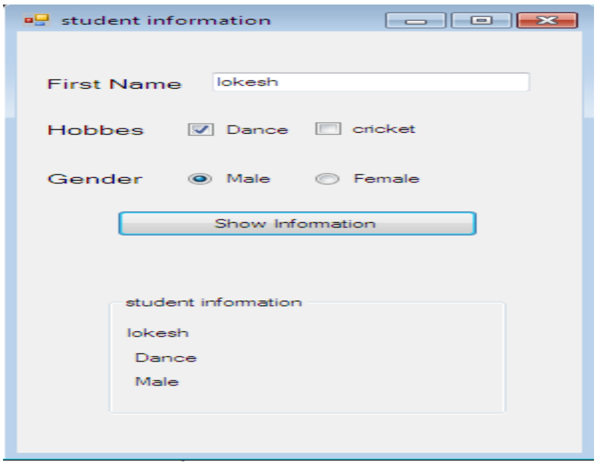
Output:-

```
Enter First Number

10

Enter Second Number

0

integer divide by 0 exception

Attempted to divide by zero.
```

Windows Application Development

Assignment no-25

//Demonstration of TextBox,CheckBox,RadioButton,Button,Label,GroupBox.



First Name lokesh

Hobbes ☑ Dance ☐ cricket

Gender ● Male ○ Female

student information

lokesh

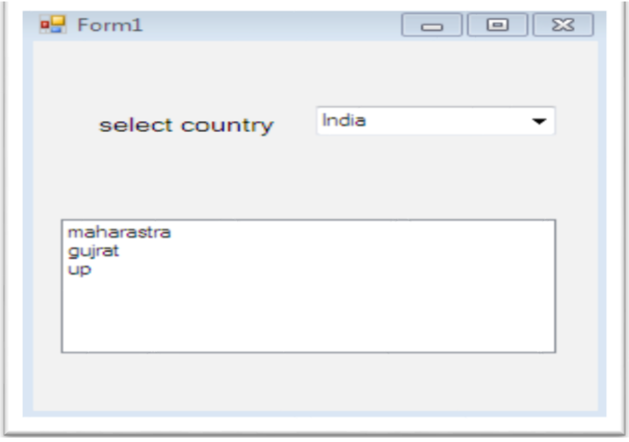
Dance

Male

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

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

        private void btn1_Click(object sender, EventArgs e)
        {
            lblname.Text=txt1.Text;
            if(chk1.Checked==true)
            {
               lblhobb.Text=chk1.Text;
            }
            if(chk2.Checked==true)
              {
               lblhobb.Text=chk2.Text;
              }
            if (rdb1.Checked == true)
            {
               lblgend.Text = rdb1.Text;
            }
            if (rdb2.Checked == true)
            {
               lblgend.Text = rdb2.Text;
            }
         }
 }
} }
```

Assignment no-26

#Create a C# application using ListBox, ComboBox control

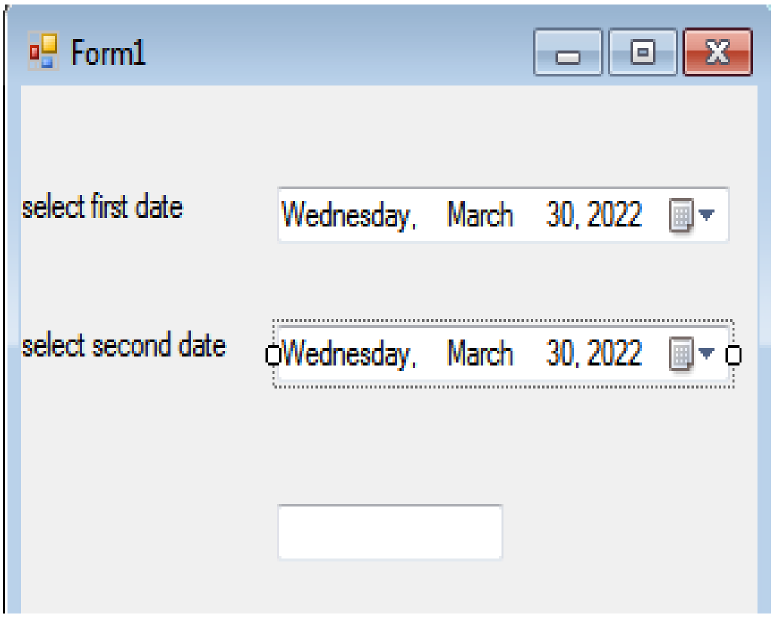


```
using System;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
   public partial class Form1 : Form
   {
      public Form1()
      {
         InitializeComponent();
      }

      private void cmbselect_SelectedIndexChanged(object sender, EventArgs e)
```

```
        {
            lB1.Items.Clear();
            if (cmbselect.SelectedItem == "India")
            {
                lB1.Items.Add("maharastra");
                lB1.Items.Add("gujrat");
                lB1.Items.Add("up");
            }
            if (cmbselect.SelectedItem == "USA")
            {
                lB1.Items.Add("A");
                lB1.Items.Add("B");
                lB1.Items.Add("C");
            }
        }
    }
}
```

***Assignment no-27**

# Demonstrate use of DateTimePicker



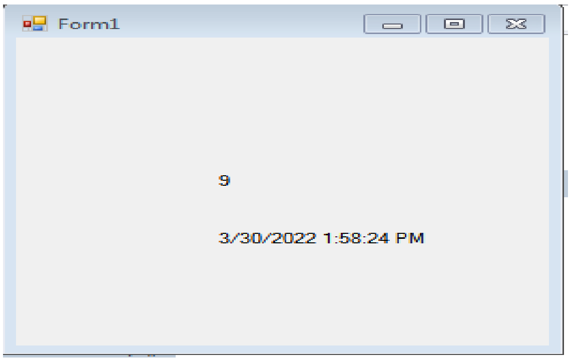
select first date Wednesday, March 30, 2022

select second date Wednesday, March 30, 2022

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

namespace WindowsFormsApplication1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void dateTimePicker2_ValueChanged(object sender, EventArgs e)
        {
            int d;
            DateTime firstdate = Convert.ToDateTime(dateTimePicker1.Text);
            DateTime seconddate = Convert.ToDateTime(dateTimePicker2.Text);
            d = firstdate.Subtract(seconddate).Days;
            textBox1.Text = Math.Abs(d).ToString();

        }

          }
}
```

Assignment no-28

//demonstration use of timer control.

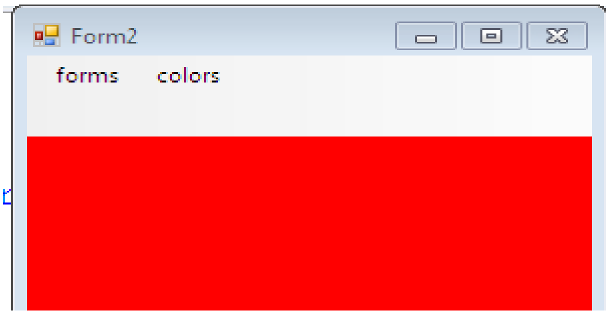


9

3/30/2022 1:58:24 PM

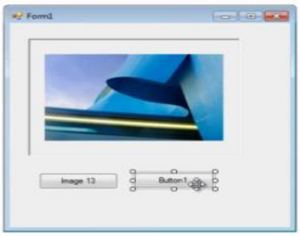
```
using System;
using System.Windows.Forms;

namespace timer
{
    public partial class Form1 : Form
    {
        int t;
        public Form1()
        {

            InitializeComponent();
            timer1.Start();
            timer2.Start();
        }

        private void timer1_Tick(object sender, EventArgs e)
        {
            t++;
            label1.Text = t.ToString();
            if (t == 10)
            {
                timer1.Stop();
                label1.Text = "time out";
            }
        }

        private void timer2_Tick(object sender, EventArgs e)
        {
            label2.Text = DateTime.Now.ToString();
        }


    }
}
```

***Assignment no-29**
//demonstration of menustrip control to change background color and open different forms



```
using System;
using System.Windows.Forms;
namespace manustrip107.cs
{
    public partial class Form2 : Form
    {
        public Form2()
        {
            InitializeComponent();
        }
         private void form1ToolStripMenuItem_Click(object sender, EventArgs e)
        {
            Form1 f1 = new Form1();
            f1.Show();
        }
   private void redToolStripMenuItem1_Click(object sender, EventArgs e)
        {
            this.BackColor = Color.Red;
        }
 private void greenToolStripMenuItem1_Click(object sender, EventArgs e)
 {
            this.BackColor = Color.Green;
        }
           private void blueToolStripMenuItem1_Click(object sender, EventArgs e)
        {
            this.BackColor = Color.Blue;
        }
 }
}
```

***Assignment no-30**
//Demonstration of PictureBox.



```
using System;
using System.Windows.Forms;
namespace manustrip107.cs
{
    public partial class Form1 : Form
    {
        int count=-1;
        public Form1()
        {
            InitializeComponent();
        }
         private void bt2_Click(object sender, EventArgs e)
        {

            if (count <= 8)
            {
                count = count + 1;
            }
            pictureBox1.SizeMode = PictureBoxSizeMode.StretchImage;

            pictureBox1.Image=imageList1.Images[count];
        }
        private void bt1_Click(object sender, EventArgs e)
        {
            if (count >= 0)
            {
                count = count - 1;
            }
            pictureBox1.Image = imageList1.Images[count];
        }
    }
}
```

Assignment No: 31

#Demonstrate Simple Database Connectivity using wizard.

Creating Database and Table:

Create the Customers table

1. Open Visual Studio and create new C# Window Application.
2. In **Server Explorer** ->Select **Data Connections->**Right Click-> Select **Create New SQL server Database.**
3. Specify in wizard **Data Source=.** Or **actual server name and Database Name=HR .**
4. Go to **Server Explore**-> Expand **database HR**->Right-click on **Tables** and select **Add New Table**.

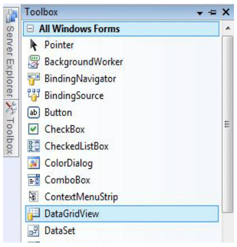
   The Table Designer opens and shows a grid with one default row, which represents a single column in the table that you're creating. By adding rows to the grid, you'll add columns in the table.
5. In the grid, add a row for each of the following entries:

Column name	**Data type**	**Allow nulls**
EmpID	nchar(5)	False (cleared)
EName	nvarchar(50)	False (cleared)
ContactName	nvarchar (50)	True (selected)
Phone	nvarchar (24)	True (selected)

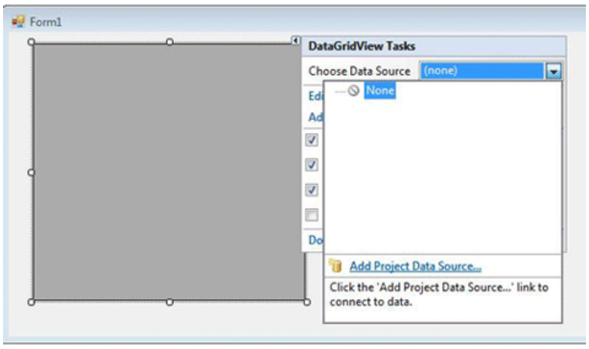
6. Open the shortcut menu for the **Tables** node, select **Refresh**, and then expand the **Tables** node.
7. Open the shortcut menu for the emp table, and then select **Show Table Data** or **View Data**.
8. Add 5 records.

Retrieving Data from database using DataGridView Control.

9. Drag and drop DataGridView control from toolbox to form window.



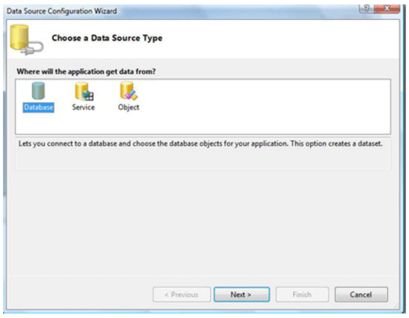
10. Now choose a data source by right clicking on the DataGridView and then click on **Add Project Data Source**. We will be adding a new data source to the project right now.



Click the 'Add Project Data Source...' link to connect to data.

Figure 3.

11. Now select data source type, I am choosing Database in this example. After selecting Database, click next.

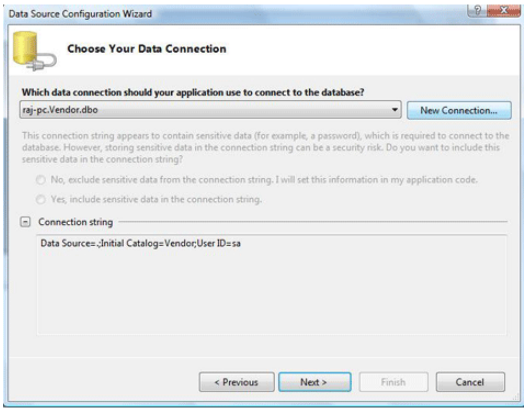


Where will the application get data from?

Lets you connect to a database and choose the database objects for your application. This option creates a dataset.

Figure 4

12. Choose your data connection, if you already have a connection available select that, otherwise make new connection, and follow the steps and after that click next.



Which data connection should your application use to connect to the database?

raj-pc.Vendor.dbo

This connection string appears to contain sensitive data (for example, a password), which is required to connect to the database. However, storing sensitive data in the connection string can be a security risk. Do you want to include this sensitive data in the connection string?

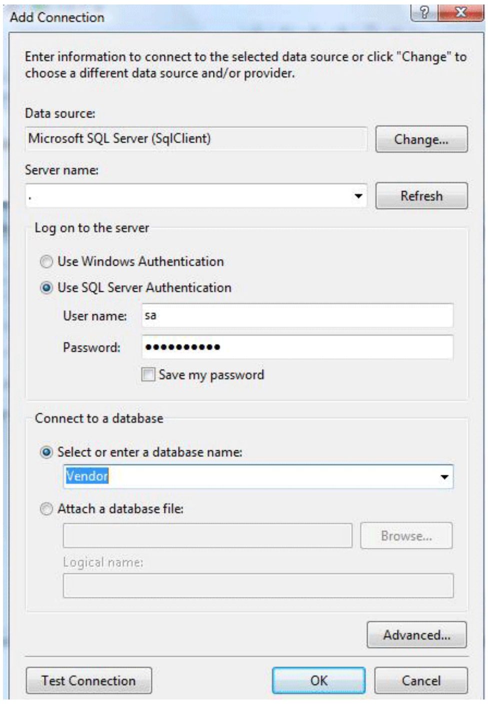
○ No, exclude sensitive data from the connection string. I will set this information in my application code.

○ Yes, include sensitive data in the connection string.

Data Source=.;Initial Catalog=Vendor;User ID=sa

13. Figure 5.

14. Add Connection Wizard.



Add Connection

Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.

Data source:
Microsoft SQL Server (SqlClient)

Server name:
.

Log on to the server

○ Use Windows Authentication
● Use SQL Server Authentication

User name: sa
Password: ••••••••••
□ Save my password

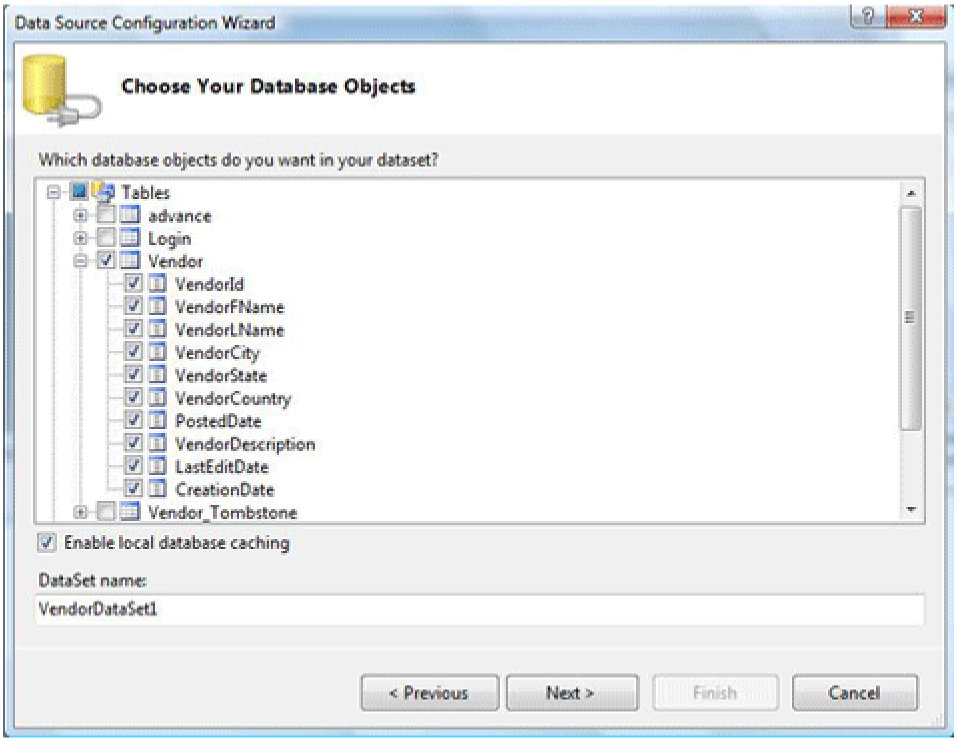
Connect to a database

● Select or enter a database name:
Vendor
○ Attach a database file:

Logical name:

15. Figure 6

16. Choose you database objects, and click next, if you want local database caching then check enable local database caching check box and click next.

17. 

Data Source Configuration Wizard

Choose Your Database Objects

Which database objects do you want in your dataset?

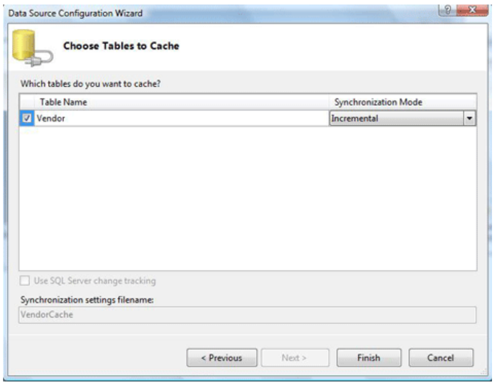
- ■ Tables
  - □ advance
  - □ Login
  - ☑ Vendor
    - ☑ VendorId
    - ☑ VendorFName
    - ☑ VendorLName
    - ☑ VendorCity
    - ☑ VendorState
    - ☑ VendorCountry
    - ☑ PostedDate
    - ☑ VendorDescription
    - ☑ LastEditDate
    - ☑ CreationDate
  - □ Vendor_Tombstone

☑ Enable local database caching

DataSet name:
VendorDataSet1

18. Figure 7.

19. Select table for caching.



Choose Tables to Cache

Which tables do you want to cache?

	Table Name	Synchronization Mode
☑	Vendor	Incremental

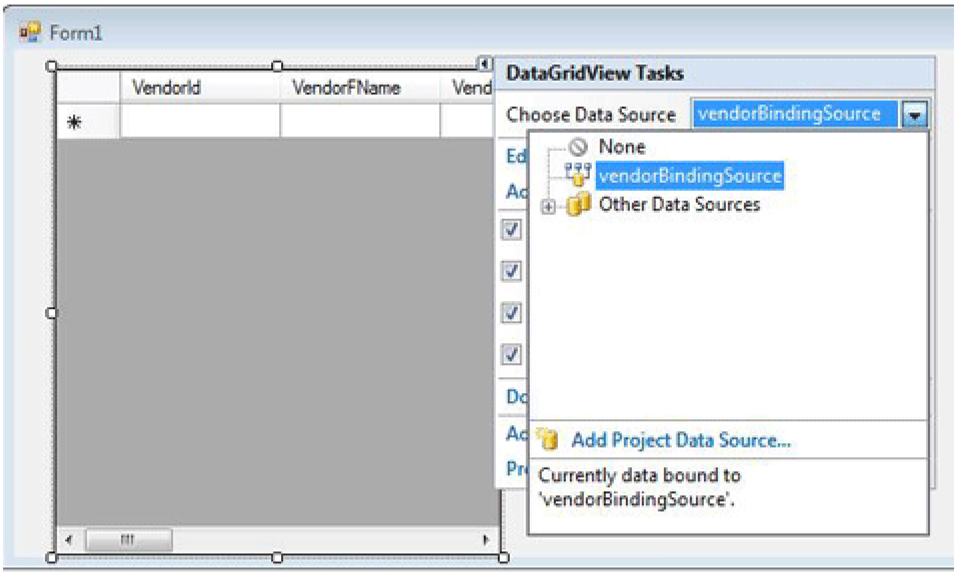
☐ Use SQL Server change tracking

Synchronization settings filename:

VendorCache

Figure 8.

20. Now your data source is created, right click on DataGridView control and on the option Choose Data Source, select the data source you just created.



Choose Data Source: vendorBindingSource

Currently data bound to 'vendorBindingSource'.

21. Build and Run Application.