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| **Day-16 assignment**  **By**  **Bhanu Rama Krishna Prakash Jakkamsetti**  **14/2/2022** |

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| 1.WCP to print Hello World (think in object oriented way) |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day16\_project1  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:print hello using oops  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  class HelloWorld  {  public void ReadData()  {  Console.WriteLine("enter data");  string s=Console.ReadLine();  }    }  internal class Program  {  static void Main(string[] args)  {  HelloWorld h = new HelloWorld();  h.ReadData();  Console.ReadLine();  }  }  } |
| Output: |
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| 2.WACP to read a number from user and print factorial of it. (object oriented way) |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day16\_project2  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:find factorial by using oops  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  class Mathmatics  {  int fact = 1, n;  /// <summary>  /// read data for factorial  /// </summary>  public void ReadData()  {  Console.WriteLine("enter number");  n =Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// find factorial  /// </summary>  /// <returns>factorial</returns>  public int Factorial()  {  for (int i = 1; i <= n; i++)  fact=fact\*i;  return fact;  }  }  internal class Program  {  static void Main(string[] args)  {  Mathmatics m = new Mathmatics();  m.ReadData();  int b= m.Factorial();  Console.WriteLine(b);  Console.ReadLine();  }  }  } |
| Output: |
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| 3.For the console app created in 2nd task, add ss of the .exe file location. |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day16\_project2  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:find factorial by using oops  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  class Mathmatics  {  int fact = 1, n;  /// <summary>  /// read data for factorial  /// </summary>  public void ReadData()  {  Console.WriteLine("enter number");  n =Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// find factorial  /// </summary>  /// <returns>factorial</returns>  public int Factorial()  {  for (int i = 1; i <= n; i++)  fact=fact\*i;  return fact;  }  }  internal class Program  {  static void Main(string[] args)  {  Mathmatics m = new Mathmatics();  m.ReadData();  int b= m.Factorial();  Console.WriteLine(b);  Console.ReadLine();  }  }  } |
| Output: |
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| 4.Create a class library project  Create a class mathematics as discussed in the class.  [add methods for reading number and finding factorial] |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace BhanuLibrary  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:creating library  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  internal class Mathematics  {  int fact = 1, n;  /// <summary>  /// read data for factorial  /// </summary>  public void ReadData()  {  Console.WriteLine("enter number");  n = Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// find factorial  /// </summary>  /// <returns>factorial</returns>  public int Factorial()  {  for (int i = 1; i <= n; i++)  fact = fact \* i;  return fact;  }  }  } |
| Output: |
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| 5.Create a class library with three classes in it:  a. Mathematics  b. Physics  c. chemistry  refer all the 3 class in a console app. |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Main\_library  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:creating library and access by using console  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  public class Mathematics  {  /// <summary>  /// finding factorial  /// </summary>  /// <param name="a"></param>  /// <returns>factorial</returns>  public int Factorial(int a)  {  int fact = 1;  for (int i = 1; i <= a; i++)  fact=fact\*i;  return fact;  }  /// <summary>  /// finding add  /// </summary>  /// <param name="a"></param>  /// <param name="b"></param>  /// <returns>add</returns>  public int Add(int a,int b)  {  return a + b;  }  /// <summary>  /// finding mul  /// </summary>  /// <param name="a"></param>  /// <param name="b"></param>  /// <returns>mul</returns>  public int MUl(int a,int b)  {  return a\*b;  }  }  }  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Main\_library  {  public class Physics  {  /// <summary>  /// finding velocity  /// </summary>  /// <param name="u"></param>  /// <param name="a"></param>  /// <param name="t"></param>  /// <returns>velocity</returns>  public int Finalvelocity(int u,int a ,int t)  {  return u + a \* t;  }  }  }  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Main\_library  {  public class Chamistry  {  /// <summary>  /// gett benzene  /// </summary>  /// <returns>benzene</returns>  public string Getbenzene()  {  return "C6H6";  }  /// <summary>  /// get water  /// </summary>  /// <returns>water</returns>  public string Getwater()  {  return "H2O";  }  /// <summary>  /// get methane  /// </summary>  /// <returns>methane</returns>  public string Methane()  {  return "CH4";  }  }  }  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  using Main\_library;  namespace Day16\_project4  {  internal class Program  {  static void Main(string[] args)  {  Mathematics m = new Mathematics();  Console.WriteLine(m.Factorial(5));  Console.WriteLine( m.Add(5, 5));  Console.WriteLine(m.MUl(5, 5));  Physics p = new Physics();  Console.WriteLine(p.Finalvelocity(5, 2, 3));  Chamistry c = new Chamistry();  Console.WriteLine(c.Getbenzene());  Console.WriteLine(c.Getwater());  Console.WriteLine(c.Methane());  Console.ReadLine();  }  }  } |
| Output: |
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| 6.WACP to print multiplication table of a number. |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day16\_project5  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:multiplaction table by using oops  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  class Maths  {  int n;  /// <summary>  /// reading data from user  /// </summary>  public void Readdata()  {  Console.WriteLine("enter number");  n = Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// printing data  /// </summary>  public void Printdata()  {  for (int i = 1; i <= 10; i++)  {    Console.WriteLine($"{n}\*{i}={i \* n}");  }  }  }  internal class Program  {  static void Main(string[] args)  {  Maths m = new Maths();  m.Readdata();  m.Printdata();  Console.ReadLine();  }  }  } |
| Output: |
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| 7.WACP given number is palindrome or not. |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day16\_project6  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* Purpose:check number is palindrome or not  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  class Numberchecking  {  int n, r, sum = 0, temp;  /// <summary>  /// for read data  /// </summary>  public void Readdata()  {  Console.WriteLine("Enter the Number: ");  n = Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// to find palindrome  /// </summary>  public void Palindrome()  {  temp = n;  while (n > 0)  {  r = n % 10;  sum = (sum \* 10) + r;  n = n / 10;  }  if (temp == sum)  Console.WriteLine("Number is Palindrome.");  else  Console.WriteLine("Number is not Palindrome");  }  }  internal class Program  {  static void Main(string[] args)  {  Numberchecking nc = new Numberchecking();  nc.Readdata();  nc.Palindrome();  Console.ReadLine();  }  }  } |
| Output: |
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| 8.Create a solution “MyProject” -add three projects |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Bhanulibrary  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:creating library in the same project  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  public class Mathematics  {  int n, fact = 1;  /// <summary>  /// read data  /// </summary>  public void readdatafact()  {  Console.WriteLine("enter number");  n=Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// find factorial  /// </summary>  /// <returns>fact</returns>  public int Factorial()  {  for (int i = 1; i <= n; i++)  fact = fact \* i;  return fact;  }  /// <summary>  /// find mul  /// </summary>  /// <param name="a"></param>  /// <param name="b"></param>  /// <returns>mul</returns>  public int Mul(int a,int b)  {  return a \* b;  }  }  }  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Publiclibrary  {  public class Physics  {  int u, a, t;  /// <summary>  /// reading data  /// </summary>  public void Readdata()  {  Console.WriteLine("enter u:");  u=Convert.ToInt32(Console.ReadLine());  Console.WriteLine("enter a");  a=Convert.ToInt32(Console.ReadLine());  Console.WriteLine("enter t");  t=Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// find velocity  /// </summary>  /// <returns>velocity</returns>  public int Finalvelocity()  {  return u + a \* t;  }  }  }  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  using Bhanulibrary;  using Publiclibrary;  namespace ClientApp1  {  internal class program  {  public static void Main(string [] args)  {  Mathematics m=new Mathematics();  m.readdatafact();  Console.WriteLine(m.Factorial());  Console.WriteLine(m.Mul(5,2));  Physics p = new Physics();  p.Readdata();  Console.WriteLine(p.Finalvelocity());  Console.ReadLine();  }  }  } |
| Output: |
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| 9.Add other project (windows app ) |
| Code: |
| 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;  using System.Windows.Forms;  using Bhanulibrary;  using Publiclibrary;  namespace Mywindowsapp  {  public partial class Form1 : Form  {  public Form1()  {  InitializeComponent();  }    private void button1\_Click(object sender, EventArgs e)  {  Mathematics m = new Mathematics();  int n=Convert.ToInt32(textBox1.Text);  m.n = n;  int f = m.Factorial();  textBox2.Text = f.ToString();  }  }  } |
| Output: |
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| 10.Research and write what is the use of partial classes in c#  And write an example. |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Bhanulibrary  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author:bhanu rama krishna prakash jakkamsetti  \* purpose:creating library in the same project  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  public partial class Mathematics  {  public int n, fact = 1;  /// <summary>  /// read data  /// </summary>  public void readdatafact()  {  Console.WriteLine("enter number");  n = Convert.ToInt32(Console.ReadLine());  }  /// <summary>  /// find factorial  /// </summary>  /// <returns>fact</returns>  public int Factorial()  {  for (int i = 1; i <= n; i++)  fact = fact \* i;  return fact;  }  /// <summary>  /// find mul  /// </summary>  /// <param name="a"></param>  /// <param name="b"></param>  /// <returns>mul</returns>  public int Mul(int a,int b)  {  return a \* b;  }  }  }  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Bhanulibrary  {  public partial class Mathematics  {  public int Div(int a,int b)  {  return a / b;  }  }  }  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  using Bhanulibrary;  using Publiclibrary;  namespace ClientApp1  {  internal class program  {  public static void Main(string [] args)  {  Mathematics m=new Mathematics();  m.readdatafact();  Console.WriteLine(m.Factorial());  Console.WriteLine(m.Mul(5,2));  Console.WriteLine(m.Div(10,5));  Physics p = new Physics();  p.Readdata();  Console.WriteLine(p.Finalvelocity());  Console.ReadLine();  }  }  } |
| Output: |
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