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| Day-16 Morning Assignment  By  U.Joshna  [14-2-2022] |

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| 1. WACP to print Hello World Hint: Think object oriented |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;    namespace Day\_16\_Project\_1  {  class HelloWorld  {  public void PrintMessage()  {  Console.WriteLine("Enter Hello World");  }  }    internal class Program  {  static void Main(string[] args)  {  HelloWorld hw= new HelloWorld();  hw.PrintMessage();    }  }  } |
| Output: |
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| 2. WACP to read a number from user and print factorial of it. Hint : Think object oriented |
| Code: |
| using System;    namespace Day\_16\_Project\_2  {  class Factorial  {  int input;    public int ReadInput()  {  Console.Write("\n Enter any Number To Calculate It's Factorial : ");  input = int.Parse(Console.ReadLine());  return input;  }    public int PrintFactorial()  {  int fact = 1;  for (int i = 1; i <= input; i++)  {  fact \*= i;  }  return fact;  }  }    internal class Program  {  static void Main(string[] args)  {  Factorial factorial = new Factorial();  int input = factorial.ReadInput();  Console.WriteLine("\nThe Factorial of {0} is :{1}\n", input, factorial.PrintFactorial());  }  }  } |
| Output: |
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| 3. For the console application created in 2nd task, add screen shot of the .exe file location |
| Output: |
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| 4. Create a Class Library Project with name as  <YourName>Library ( Example : MeganadhLibrary )  Create a class Mathematics as discussed in the class.  [ Add methods for reading number and finding factorial ]  Re-Build the project and you will a .dll file. ( Put the screen shot of this )  Copy the dll file to your desktop (put the screen shot of this ) |
| Output: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;    namespace JoshnaLibrary  {  public class Mathematics  {  int input;    public int ReadInput()  {  Console.Write("\nEnter any Number To Calculate It's Factorial : ");  input = int.Parse(Console.ReadLine());  return input;  }    public int PrintFactorial()  {  int fact = 1;  for (int i = 1; i <= input; i++)  {  fact \*= i;  }  return fact;  }  }  } |
| Rebuild: |
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| The DLL File is Created in the Path |
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| Copying the DLL File to the Given Desktop |
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| 6. WACP to print multable table of a number |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;    namespace Day\_16\_Project\_6  {  class MultiplicationTable  {  int input;    public int ReadInput()  {  Console.Write("\n Enter any Number To Print its Multiplication Table : ");  input = int.Parse(Console.ReadLine());  Console.WriteLine("\n\n::: Displaying the Multiplication Table for {0} :::\n",  input);  return input;  }    public void PrintMulTable()  {  for (int i = 1; i <= 10; i++)  {    Console.WriteLine("{0} x {1} = {2}", input, i, input \* i);  }  Console.WriteLine();  }    internal class Program  {  static void Main(string[] args)  {    MultiplicationTable table = new MultiplicationTable();  table.ReadInput();  table.PrintMulTable();  Console.ReadKey();  }  }  }  } |
| Output: |
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| 7. WACP to check if the given is number is Palindrome or not |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;    namespace Day\_16\_Project\_7  {  class Palindrome  {  int input;    public int ReadInput()  {  Console.Write("\nEnter Any Number To Check, If Palindrome Or Not : ");  input = int.Parse(Console.ReadLine());  return input;  }    public bool IsPalindrome()  {  int rev = 0, rem, m;  m = input;  while (m > 0)  {  rem = m % 10;  m = m / 10;  rev = rev \* 10 + rem;  }  if (input == rev)  return true;  else  return false;  }  }    internal class Program  {  static void Main(string[] args)  {  Palindrome palindrome = new Palindrome();  int input = palindrome.ReadInput();    bool isPalindrome = palindrome.IsPalindrome();    if (isPalindrome == true)  Console.WriteLine("\nYes, {0} Is a Palindrome Number", input);  else  Console.WriteLine("\nNo, {0} is Not a Palindrome Number", input);  Console.ReadLine();  }  }  } |
| Output: |
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| 10. Research and write what is the use of partial classesin C# WRITE EXAMPLE CODE AND PUT SCREEN SHOTS |
| Code: |
| Uses of Partial Classes in C#: |
| .A partial class is a special feature of C#. It provides a special ability to implement the functionality of a single class into multiple files and all these files are combined into a single class file when the application is compiled the general purpose of a partial class is to allow the splitting of a class definition across multiple files. |
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