**Day 16 Assignments**

**By**

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| **Q1) WACP to print Hello World Hint: Think object oriented** |
| Code:  amespace Day16Project1  {  class Message  {  public static void PrintData()  {  Console.WriteLine("Hello");  }  }  class Program  {  static void Main(string[] args)  {  Message.PrintData();  Console.ReadLine();  }  }  } |
| Output : |

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| **Q2) WACP to read a number from user and print factorial of it. Hink : Think object oriented** |
| Code:  namespace Day16Project2  {  class Mathematics  {  public int n;    public void ReadData()  {  Console.WriteLine("Enter number");  n = Convert.ToInt32(Console.ReadLine());  }  public int Fact()  {  int fact = 1;  for(int i=1;i<=n;i++)  {  fact = fact \* i;  }  return fact;  }  }  class Program  {  static void Main(string[] args)  {  Mathematics m = new Mathematics();  m.ReadData();  Console.WriteLine(m.Fact());  Console.ReadLine();  }  }  } |
| OUtput: |

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| Q3) For the console application created in 2nd task, add screen shot of the .exe file location |
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| **Q4) 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 )** |
| Code:  namespace RcLibrary  {  public class Mathematics  {  int n;  public void ReadData()  {  Console.WriteLine("Enter number:");  n = Convert.ToInt32(Console.ReadLine());  }  public int Fact()  {  int fact = 1;  for(int i=1;i<=n;i++)  {  fact = fact \* i;  }  return fact;  }  }  } |
| Output: |

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| **Q5) Create a class library with three classes in it: a. Mathematics b. Physics c. Chemistry and add methods as discussed in the class refer all the three classes in a console application.** |
| Code:  namespace RcLibrary  {  public class Mathematics  {  int n;  public void ReadData()  {  Console.WriteLine("Enter number:");  n = Convert.ToInt32(Console.ReadLine());  }  public int Fact()  {  int fact = 1;  for(int i=1;i<=n;i++)  {  fact = fact \* i;  }  return fact;  }  }  }  namespace RcLibrary  {  public class Chemistry  {  public string GetBenzene()  {  return "C6H6";  }  public string GetWater()  {  return "H2O";  }  public string GetMethane()  {  return "CH4";  }  }  }  namespace RcLibrary  {  public class Physics  {  public int FinalVelocity(int u,int a,int t)  {  return u + a \* t;  }  }  }  namespace Day16Project3  {  class Program  {  static void Main(string[] args)  {  Console.WriteLine("-----Mathematics class-----\n");    Mathematics m = new Mathematics();    m.ReadData();    Console.WriteLine("\nFactorial is "+m.Fact());    Console.WriteLine("\n-------------------------------\n");    Console.WriteLine("\n\*\*\*\*\*Chemistry class\*\*\*\*\*\n");    Chemistry c = new Chemistry();    Console.WriteLine("Benzene formula "+c.GetBenzene());    Console.WriteLine("\nMethane formula is "+c.GetMethane());    Console.WriteLine("\n Water is "+c.GetWater());    Console.WriteLine("\n=====Physics class======");    Physics p = new Physics();    Console.WriteLine("\n Final velocity is"+p.FinalVelocity(5, 3, 2));      Console.ReadLine();    }  }  } |
| Output: |

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| **Q6) WACP to print multiplication table of a number** |
| Code:  namespace Day16Project4  {  class Multi  {  int n;  public void ReadData()  {  Console.WriteLine("Enter input");  n = Convert.ToInt32(Console.ReadLine());  }  public void Print()  {  for(int i=1;i<=10;i++)  {  Console.WriteLine(n+"\*"+i+"="+n\*i);  }  }  }  class Program  {  static void Main(string[] args)  {  Multi m = new Multi();  m.ReadData();  m.Print();    Console.ReadLine();  }  }  } |
| Output: |

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| **Q7) WACP to check if the given is number is Palindrome or not** |
| Code:  namespace Day16Project5  {  public class Palindrome  {    int sum = 0, rem;  int num;  public void ReadData()  {  Console.WriteLine("Enter number");  num = Convert.ToInt32(Console.ReadLine());  }    public void Print()  {  int temp = num;  while (num>0)  {  rem = num % 10;  sum = sum \* 10 + rem;  num = num / 10;  }  if(temp==sum)  Console.WriteLine("Palindrome");  else  Console.WriteLine("Not a Palindrome");  }  }  class Program  {  static void Main(string[] args)  {  Palindrome p = new Palindrome();  p.ReadData();  p.Print();    Console.ReadLine();  }  }  } |
| Output: |

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| **Q8) Create a solution "MyProject" (as discussed in class) Add three projects a. YourNameLibrary (and add any class with methods) b. PublicLibrary (add any class with methods) c. ClientApp (and here refer above two libraries)** |
| Code:  namespace RamLibrary  {  public static class Mathematics  {  public static int n;    public static int Fact(int n)  {  int fact = 1;    for (int i = 1; i<=n; i++)  fact \*= i;  return fact;  }    }  }  namespace PublicLibrary  {  public class Physics  {  public int FinalVelocity(int u,int a,int t)  {  return u + a \* t;  }  }  }  namespace ClientApp  {  class Program  {  static void Main(string[] args)  {  Mathematics m = new Mathematics();  Console.WriteLine("Addition is "+m.Add(5, 6));  Console.WriteLine("Product is "+m.Product(6,4));    Physics p = new Physics();  Console.WriteLine("Final Velocity is "+p.FinalVelocity(5,6,4));    Console.ReadLine();  }  }  } |
| Output: |

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| **Q9) Add one more project (windows application) Add some 3 or 4 screen shots just to prove that you have done this.** |
| Code:  namespace WindowsApp  {  public partial class Form1 : Form  {  public Form1()  {  InitializeComponent();  }    private void button1\_Click(object sender, EventArgs e)  {  int input = Convert.ToInt32(textBox1.Text);  int fact = Mathematics.Fact(input);  textBox2.Text = fact.ToString();      }  }  } |
| 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:  namespace PartialApp  {  class Program  {  static void Main(string[] args)  {  Console.WriteLine("Addition is "+Maths.Add(3,4));  Console.WriteLine("Division is "+Maths.Div(4,2));    Console.ReadLine();  }  }  }  namespace C1Library  {  public static partial class Maths  {  public static int Add(int a,int b)  {  return a + b;  }  public static int Sub(int a,int b)  {  return a - b;    }  }  }  namespace C1Library  {  public static partial class Maths  {  public static int Pro(int a, int b)  {  return a \* b;  }  public static int Div(int a, int b)  {  return a / b;  }  }  } |
| Output : |