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| **DAY 7 ASSIGNMENT**  **By**  **ARUN KUMAR YADLAPALLI**  **@**  **NB Healthcare Technologies PVT LTD.** |

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| **Q1) To read input from the user and print a. factorial of a number b. factors of a number c. prime check** |
| **Code:**  namespace Day\_9\_project1  {  class Mathsoperations  {  private int input;    public void Readinput()  {  Console.WriteLine("Enter the number");  input = Convert.ToInt32(Console.ReadLine());  }    public void Factorial()  {  int fact = 1;  for (int i=1;i<=input; i++)  {  fact = fact \* i;  }  Console.WriteLine(fact);  }    public void Printfactors()  {  for(int i=1;i<=input;i++)  {  if (input%i==0)  Console.WriteLine(i);  }  }    public bool Isprime()  {  int count = 0;  for (int i=1;i<=input;i++)  {  if (input%i==0)  count++;    }  if (count == 2)  return true;  else  return false;  }  }  class Program  {  static void Main(string[] args)  {  Mathsoperations obj = new Mathsoperations();  obj.Readinput();  obj.Factorial();  obj.Printfactors();  if(obj.Isprime())  Console.WriteLine("Input is prime");  else  Console.WriteLine("Input is not prime");    Console.ReadLine();    }  }  } |
| **Output :** |

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| **Q2) To read two numbers from user and print sum, Difference, product and division of those 2 numbers** |
| **Code:**  namespace Day9\_project2  {  class MathTask  {  private int a;  private int b;    public void Readinput()  {  Console.WriteLine("Enter first number");  a = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter second number");  b = Convert.ToInt32(Console.ReadLine());    }  public int Addnumbers()  {  return a + b;  }  public int Subtractnumbers()  {  return a - b;  }  public int Multiplynumbers()  {  return a \* b;  }  public int Dividenumbers()  {  return a / b;  }  }  class Program  {  static void Main(string[] args)  {  MathTask mt = new MathTask();  mt.Readinput();  Console.WriteLine(mt.Addnumbers());  Console.WriteLine(mt.Subtractnumbers());  Console.WriteLine(mt.Multiplynumbers());  Console.WriteLine(mt.Dividenumbers());    Console.ReadLine();  }  }  } |
| **Output:** |

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| **Q3)** Differences between Static variable and normal variable. |
| **A)** Static variable:  A static variable acts as a global variable and is shared among all the objects of the class.  Static variables occupies less space and memory allocation happens once.  Normal Variable:  A non-static variables are specific to instance object in which they are created.  A normal variable is not required to have any special keyword. |

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| **Q4)** 5 Points about Constructor. |
| **A)**   * A constructor is used to intialize class variables. * By default C# has one constructor that is default constructor which intialise values. * Constructor name should be same as class name. * To use same variables as that of class variables use this.id, this name to differentiate class variables. |