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| Day-9 Morning Assignment  By  U.Joshna  [3-2-2022] |

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| 1.Write a C# program to read input form user and print?  a)factorial of a number |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_factorial  {  class MathsOperation  {  private int input;  public void ReadInput()  {  Console.WriteLine("Enter a Factorial Number :");  input = Convert.ToInt32(Console.ReadLine());  }  public int Factorial()  {  int fact = 1;  for (int i = 1; i <= input; i++)  {  fact = fact \* i;  }  return fact;  }  }  internal class Program  {  static void Main(string[] args)  {  MathsOperation mo = new MathsOperation();  mo.ReadInput();  mo.Factorial();  Console.WriteLine(mo.Factorial());  Console.ReadLine();  }  }  } |
| Output: |
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| 1b)factors of a number? |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_factors  {  class MathOperation  {  private int input;  //Read Factors  public void ReadFactors()  {  Console.WriteLine("Enter a Number :");  input = Convert.ToInt32(Console.ReadLine());  }  public void PrintFactors()  {  for (int i = 1; i <= input; i++)  {  if (input % i == 0)  Console.WriteLine(i);  }  }  }  internal class Program  {  static void Main(string[] args)  {  MathOperation obj = new MathOperation();  {  obj.ReadFactors();  obj.PrintFactors();  Console.ReadLine();  }  }  }  } |
| Output: |
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| 1c)check if it prime or not? |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_prime\_or\_not  {  class MathOperation  {  private int input;  public void ReadNumber()  {  Console.WriteLine("Enter a Number :");  input = Convert.ToInt32(Console.ReadLine());  }  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;  }  }  internal class Program  {  static void Main(string[] args)  {  MathOperation obj = new MathOperation();  obj.ReadNumber();  if (obj.IsPrime())  Console.WriteLine("input is prime number ");  else  Console.WriteLine("input is not prime number");  Console.ReadLine();  }  }  } |
| Output: |
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| 2.Write C# program to read two numbers from use and print? |
| a)sum of two numbers |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_Mrng\_2a  {  class MathTask  {  private int a;  private int b;  public void ReadInput()  {  Console.WriteLine("Enter a first number :");  a = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter a second number :");  b = Convert.ToInt32(Console.ReadLine());  }  public int PrintInput()  {  return a + b;  }  }  internal class Program  {  static void Main(string[] args)  {  MathTask obj = new MathTask();  obj.ReadInput();  Console.WriteLine(obj.PrintInput());  Console.ReadLine();  }  }  } |
| Output: |
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| 2b)difference of two numbers? |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_Mrng\_2b  {  class MathTask  {  private int a;  private int b;  public void ReadInput()  {  Console.WriteLine("Enter a first number :");  a = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter a second number :");  b = Convert.ToInt32(Console.ReadLine());  }  public int PrintInput()  {  return a - b;  }  }  internal class Program  {  static void Main(string[] args)  {  MathTask obj = new MathTask();  obj.ReadInput();  Console.WriteLine(obj.PrintInput());  Console.ReadLine();  }  }  } |
| Output: |
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| 2c)product of two numbers |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_Mrng\_\_Assignment\_2c  {  class MathTask  {  private int a;  private int b;  public void ReadInput()  {  Console.WriteLine("Enter a first number :");  a = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter a second number :");  b = Convert.ToInt32(Console.ReadLine());  }  public int PrintInput()  {  return a \* b;  }  }  internal class Program  {  static void Main(string[] args)  {  MathTask obj = new MathTask();  obj.ReadInput();  Console.WriteLine(obj.PrintInput());  Console.ReadLine();  }  }  } |
| Output: |
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| 2d)division of two numbers? |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_Mrng\_Assignment\_2d  {  class MathTask  {  private int a;  private int b;  public void ReadInput()  {  Console.WriteLine("Enter a first number :");  a = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter a second number :");  b = Convert.ToInt32(Console.ReadLine());  }  public int PrintInput()  {  return a / b;  }  }  internal class Program  {  static void Main(string[] args)  {  MathTask obj = new MathTask();  obj.ReadInput();  Console.WriteLine(obj.PrintInput());  Console.ReadLine();  }  }  } |
| Output: |
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| 3.create an employee class with below variables  Id,name,salary,company  Write methods to read data and print data? |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_Mrng\_Assignment\_3  {  class Employee  {  public int id;  public string name;  public int salary;  public static string company = "NB Technologies";  public void ReadData()  {  Console.WriteLine("Enter Id Number :");  id = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Name Number :");  name = Console.ReadLine();  Console.WriteLine("Enter Salary Number :");  salary = Convert.ToInt32(Console.ReadLine());  }  public void PrintData()  {  Console.WriteLine($"id:{id},name:{name},salary:{salary},company:{company}");  }  }  internal class Program  {  static void Main(string[] args)  {  Employee emp = new Employee();  emp.ReadData();  emp.PrintData();  Console.ReadLine();  }  }  } |
| Output: |
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| 4.Research and find the difference between normal variable and static variable?  .Static variable does not consume any memory space.  .Static variable get intilized immediately Once the execution of the class starts.  .Static variable is global variable.  .Non-static variable can intilized Only after Creating the object.  .Non-static variable is consume memory space.  .Non-static variable is like local variable. |

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| 5.Write 5 points discussed about constructor?  .A constructor is used to intialize class variables while creating an object.  .In C-sharp we have default constructor which we will intialize to default values.  .A constructor name is same as class name.  .In constuctor to use the (this key- word) , when to use this- key word is constructor variable name and class variable name both are confusing at that time this key-word is used |

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| 6.Create employee class with two constructors as discussed in the  Class? |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_9\_\_Mrng\_Assignment\_Constructor  {  class Employee  {  public int id;  public string name;  public int salary;  public static string company = "NB Technologies";  public Employee()  {  this.id = 0;  this.name = "null";  this.salary = 0;  }  public Employee(int eid, string ename, int esalary)  {  this.id = eid;  this.name = ename;  this.salary = esalary;  }  public void PrintData()  {  Console.WriteLine($"id:{id},name:{name},salary:{salary},company:{company}");  }  }  internal class Program  {  static void Main(string[] args)  {  Employee emp1 = new Employee();  Employee emp2 = new Employee(3, "joshna",20000);  emp1.PrintData();  emp2.PrintData();  Console.ReadLine();  }  }  } |
| Output: |
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