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| **DAY 13 ASSIGNMENT**  **By**  **ARUN KUMAR YADLAPALLI**  **@**  **NB Healthcare Technologies PVT LTD.** |

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| **Q1) Declaring a 2 dimensional array of size (2,2) and initialize using indexes and print the values using nested for loop.** |
| **Code:**  namespace Day\_13\_Project\_1  {  class Program  {  static void Main(string[] args)  {  int[,] data = new int[2,2];  data[0, 0] = 5;  data[0, 1] = 6;  data[1, 0] = 7;  data[1, 1] = 8;    for (int i=0;i<2;i++)  {  for (int j=0;j<2;j++)  {  Console.Write(data[i, j]+ " ");  }  Console.Write("\n");  }  Console.ReadLine();    }  }  } |
| **Output:** |

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| **Q2) Declare a 2D array of size(3,2) and initialize in the same line while declaring and print the values using nested for loop.** |
| Code:  namespace Day\_13\_project\_2  {  class Program  {  static void Main(string[] args)  {  int[,] data = new int[,] { { 1, 2 }, { 2, 3 }, { 3, 4 } };    for (int i=0;i<3;i++)  {  for (int j=0;j<2;j++)  {  Console.Write(data[i,j]+" ");  }  Console.Write("\n");  }  Console.ReadLine();  }  }  } |
| Output : |

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| **Q3) Declaring a 2D array of size (3,3) and print trace of the array** |
| Code:  namespace Day\_13\_project\_3  {  class Program  {  static void Main(string[] args)  {  int [,] data = new int [,] { { 1,2,3}, { 3,4,5},{ 5,6,7} };  int sum = 0;    for (int i=0; i<3;i++)  {  for (int j = 0; j < 3; j++)  {  if (i == j)    sum = sum + data[i, j];        }  Console.Write("\n");      }  Console.WriteLine(sum);  Console.ReadLine();    }  }  } |
| Output: |

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| **Q4) Declaring a 2D array of size (2,2) and read values from user and print the array values.** |
| Code:  namespace Day\_13\_project\_4  {  class Program  {  static void Main(string[] args)  {  int[,] arr = new int[2, 2];    //Reading the values from the user  for (int i = 0; i < 2; i++)  {  for (int j = 0; j < 2; j++)  {  Console.WriteLine($"Enter the required number at ({i},{j})");  arr[i, j] = Convert.ToInt32(Console.ReadLine());  }  }    //printing the values  for (int i = 0; i < 2; i++)  {  for (int j = 0; j < 2; j++)  {  Console.Write(arr[i,j]+" ");    }  Console.Write("\n");    }  Console.ReadLine();  }  }  } |
| Output : |

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| **Q5) Programme to show the working of jagged array.** |
| Code:  namespace Day14\_Project1  {      class Program  {  static void Main(string[] args)  {      Char[][] name = new char[3][];    name[0] = new char[]{'m','e','g'};    name[1] = new char[]{'a','r','u','n'};    name[2] = new char[]{'s','a','i'};    for(int i = 0; i <3; i++)  {  for (int j=0;j<name[i].Length;j++)  {  Console.Write(name[i][j]);  }  Console.WriteLine();    }  Console.ReadLine();    }  }  } |
| Output: |

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| **Q6) Recursion and a Programme on recursion** |
| A) Function calling itself repeatedly until a specified condition satisfies. |
| Code:  namespace Day\_13\_project\_6  {        class Program  {  public static int Factorial (int n)  {  if (n == 0)  return 1;  else  return n \* Factorial(n - 1);  }  public static void print (int n)  {  Console.WriteLine("factorial {0} is {1}", n, Factorial(n));  }  static void Main(string[] args)  {  int n = 7;  print (n);  Console.ReadLine();  }  }  } |
| Output : |

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| **Q7) Program on stack** |
| Code:  namespace Day\_13\_Project\_7  {  class Program  {  static void Main(string[] args)  {  Stack<int> data = new Stack<int> ();  data.Push(15);  data.Push(21);  data.Push(19);    Console.WriteLine(data.Count );  Console.WriteLine(data.Pop());  Console.WriteLine(data.Count);    Console.ReadLine();  }  }  } |
| Output: |