**Practical 1**

13th July’18

Q1:A)Create an application that obtainss four int values from the user and displays the product

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Practical1  {  class Product  {  static void Main(string[] args)  {  int num1, num2, num3, num4, product;  Console.WriteLine("Enter Four Numbers: ");  num1 = Convert.ToInt32(Console.ReadLine());  num2 = Convert.ToInt32(Console.ReadLine());  num3 = Convert.ToInt32(Console.ReadLine());  num4 = Convert.ToInt32(Console.ReadLine());  product = num1 \* num2 \* num3 \* num4;  Console.WriteLine("Products of numbers ={0}", product);  Console.ReadKey();  }  }  } |

Q1:B)Create an application to demonstrate string operations

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  namespace Practical1  {  class StringDemo  {  static void Main(string[] args)  {  string str = " Welcome to Programming";  int indexOf = str.IndexOf("l");  int lastIndex = str.LastIndexOf("m");  bool startsWith = str.StartsWith("S");  bool endsWith = str.EndsWith("g");  char[] ch = { 'g' };  string[] s1 = { "to", "join", "a", "string" };  string[] words = str.Split(' ');  Console.WriteLine("Original String={0}", str);  Console.WriteLine("First Index of l={0}", indexOf);  Console.WriteLine("Last Index of m={0}", lastIndex);  Console.WriteLine("Replace String={0}", str.Replace("m", "w"));  Console.WriteLine("Upper Case={0}", str.ToUpper());  Console.WriteLine("Lower Case={0}", str.ToLower());  Console.WriteLine("Length of String={0}", str.Length);  Console.WriteLine("Removal from string={0}", str.Remove(3));  Console.WriteLine("Start with 'S' ={0}", startsWith);  Console.WriteLine("Ends with g' ={0}", endsWith);  Console.WriteLine("Using Trim={0}", str.Trim());  Console.WriteLine("Using Trim End={0}", str.TrimEnd(ch));  Console.WriteLine("Using Trim Start={0}", str.TrimStart(ch));  Console.WriteLine("Join method={0}", string.Join("-", s1));  Console.WriteLine("Substring={0}", str.Substring(13));  Console.WriteLine("PadLeft={0}", str.PadLeft(35, '\*'));  Console.WriteLine("PadRight={0}", str.PadRight(35, '\*'));  Console.WriteLine("Insert method={0}", str.Insert(7, "#"));  Console.WriteLine("Using Split method");  foreach (string word in words)  {  Console.WriteLine(word);  }  Console.ReadKey();  }  }  } |

Q1:C)Create an application that receives the (Student id, Student name ,Student course,date of birth) information from a set of students . The application should also display the information from a all sthe studets once data entered

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  namespace ArrayOfStructures  {  class Program  {  struct Student  {  public string studid, name, cname;  public int day, month, year;  }  static void Main(string[] args)  {  Student[] s = new Student[3];  int i;  for (i = 0; i < s.Length; i++)  {  Console.WriteLine("Enter Student ID:");  s[i].studid = Console.ReadLine();  Console.WriteLine("Enter Student Name:");  s[i].name = Console.ReadLine();  Console.WriteLine("Enter Student Course Name:");  s[i].cname = Console.ReadLine();  Console.WriteLine("Enter Date of Birth\n Enter day(1-31):");  s[i].day = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter month(1-12):");  s[i].month = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter year :");  s[i].year = Convert.ToInt32(Console.ReadLine());  }  for (i = 0; i < s.Length; i++)  {  Console.WriteLine("Student ID :"+s[i].studid);  Console.WriteLine("Student Name:"+s[i].name);  Console.WriteLine("Date Of Birth:"+s[i].day+"-"+s[i].month+"-"+s[i].year);  }  Console.ReadKey();  }  }  } |

Q1:D)Create an application to demonstrate the following operations

1. Generate fibonacci series

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  namespace FibonacciSeries  {  class Fibonacci  {  static void Main(string[] args)  {  Console.WriteLine("Enter number to generate Fibonacci series");  int num = Convert.ToInt32(Console.ReadLine());  int a = 0;  int b = 1;  int c=0;  Console.Write("{0} {1} ",a,b);  for (int i = 2; i < num; i++)  {  c=a+b;  Console.Write("{0} ",c);  a=b;  b=c;  }  Console.ReadKey();  }  }  } |

1. Test For Prime numbers

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  namespace PrimeNumbers  {  class Prime  {  static void Main(string[] args)  {  int num;  int flag = 0;  Console.WriteLine("Enter Number to check if it is prime or not");  num = Convert.ToInt32(Console.ReadLine());  int i;  for (i = 2; i <= num / 2; ++i)  {  if (num % i == 0)  {  flag = 1;  break;  }  }    if (flag==0)  {  Console.WriteLine("Number is Prime");  }  else if(flag==1)  {  Console.WriteLine("Number is not Prime");  }  Console.ReadKey();  }  }  } |

1. Test for vowels

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  namespace Vowels  {  class Vowel  {  static void Main(string[] args)  {  Console.WriteLine("Enter Vowel:");  string s=Console.ReadLine();  s=s.ToUpper();  char c = Convert.ToChar(s);  switch (c)  {  case 'A':  Console.WriteLine("Vowel is A");  break;  case 'E':  Console.WriteLine("Vowel is E");  break;  case 'I':  Console.WriteLine("Vowel is I");  break;  case 'O':  Console.WriteLine("Vowel is O");  break;  case 'U':  Console.WriteLine("Vowel is U");  break;  default:  Console.WriteLine("Entered Value is not a Vowel");  break;  }  Console.ReadKey();  }  }  } |

iv)Use of foreach loop with arrays

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  namespace ForEachLoop  {  class ForEach  {  static void Main(string[] args)  {  string[] array = {"Hello","World","To","Programming"};  foreach (string s in array)  {  Console.Write("{0} ", s);  }  Console.ReadKey();  }  }  } |

v)Reverse a number and find the sum of digits of the number

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| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  namespace Number  {  class Digits  {  static void Main(string[] args)  {  Console.WriteLine("Enter a Number");  int num;  int rev=0;  num = Convert.ToInt32(Console.ReadLine());  int rem=0;  int sum = 0;  while (num != 0)  {  rem=num%10;  sum += rem;  rev = rem + rev \* 10;  num = num / 10;  }  Console.WriteLine("Reverse={0}",rev);  Console.WriteLine("Sum={0}", sum);  Console.ReadKey();  }  }  } |