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**APPLICATION NUMBER: H/CS/23/1110**

**COURSE CODE: (COM316) C# PROGRAMMING**

**DEPARTMENT:COMPUTER SCIENCE**

1) Write a C# program that prompt the user to input three numbers . The program should then output the numbers in ascending order.

using System;

namespace SoloLearn

{

class Program

{

static void Main(string[] args)

{int[] digits = new int[3];

Console.WriteLine("input 3 numbers:");

for (int i = 0; i < digits.Length; i++)

{

digits[i] = Convert.ToInt32(Console.ReadLine());

}

Array.Sort(digits);

foreach (int i in digits)

{

Console.WriteLine(i);

}

}

}

}

2) .Write a PHP Function ,smallestindex , that takes as parameters an int array and its size,and returns the index of the smallest element in the array .Also, write a program to test your function.

using System;

namespace SoloLearn

{

class Program

{

static int smallestindex(){

int[] num= {2,13,21};

int minimum = 0;

Console.WriteLine("enter number ");

for (int i=0; i<num.Length; i++){

if (num[i] < num[minimum])

{

minimum = i;

}

}

return num[minimum];

}

static void Main(string[] args)

{

int answer=smallestindex();

Console.WriteLine(answer);

}

}

}

3) .Write a C# program that prompts the user to input a string and outputs the string in uppercase (Use a character array to store the string)

using System;

namespace SoloLearn

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("How many names do you want to enter?");

int num = Convert.ToInt32(Console.ReadLine());

string[] name = new string[num]];

Console.WriteLine("Enter the names:");

for (int i = 0; i < name.Length; i++)

{

name[i] = Console.ReadLine();

}

foreach (string i in name)

{

Console.WriteLine(i.ToUpper());

}

}

}

}

4) Write a C# program to compute the addition of of N by M matrices.Allow the user to determine the size of the row and column

using System;

namespace SoloLearn

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the number of rows for the matrices:");

int rows = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Enter the number of columns for the matrices:");

int columns = Convert.ToInt32(Console.ReadLine());

int[,] matrix1 = new int[rows, columns];

int[,] matrix2 = new int[rows, columns];

int[,] sumMatrix = new int[rows, columns];

Console.WriteLine("Enter the elements of the first matrix:");

for (int i = 0; i < rows; i++)

{

for (int j = 0; j < columns; j++)

{

matrix1[i, j] = Convert.ToInt32(Console.ReadLine());

}

}

Console.WriteLine("Enter the elements of the second matrix:");

for (int i = 0; i < rows; i++)

{

for (int j = 0; j < columns; j++)

{

matrix2[i, j] = Convert.ToInt32(Console.ReadLine());

}

}

// Compute the addition of matrices

for (int i = 0; i < rows; i++)

{

for (int j = 0; j < columns; j++)

{

sumMatrix[i, j] = matrix1[i, j] + matrix2[i, j];

}

}

Console.WriteLine("The sum of the matrices is:");

for (int i = 0; i < rows; i++)

{

for (int j = 0; j < columns; j++)

{

Console.Write(sumMatrix[i, j] + " ");

}

Console.WriteLine();

}

}

}

}

5) Write a C# program that declares an array alpha of 50 components of the type float Initialize the array so that the first 25 components are equal to the square of the index variable and the last 25 components are equal to three times the index variable. Output the array so that 10 elements per line are printed.

using System;

namespace SoloLearn

{

class Program

{

static void Main(string[] args)

{

float[] alpha = new float[50];

for (int i = 0; i < 25; i++)

{

alpha[i] = i \* i;

}

for (int i = 25; i < 50; i++)

{

alpha[i] = 3 \* i;

}

for (int i = 0; i < 50; i++)

{

Console.Write(alpha[i] + " ");

if ((i + 1) % 10 == 0)

{

Console.WriteLine();

}

}

}

}

}

6) Write a C# program that prompts the user to input a number .The program should then output the number and a message saying wether the number is positive ,negative ,or zero.

using System;

namespace SoloLearn

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Please enter a number:");

int u\_number = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("You entered: " + u\_number);

if (u\_number > 0)

{

Console.WriteLine("The number is positive.");

}

else if (u\_number < 0)

{

Console.WriteLine("The number is negative.");

}

else

{

Console.WriteLine("The number is zero.");

}

}

}

}