

***C# Basics***

**Lab Guides**

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|  | **CODE: Net.S.L004**  **TYPE: SHORT**  **LOC: 15**  **DURATION: 10 MINUTES** |
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# Lab 4: Work with Arrays

**Objectives:**

* Understand about use of Arrays in C#.

**Prerequisites:**

* Download and installs Visual Studio (included .net Framework)

**Problem Description:**

* Write a C# console application to declare and loop in an array. Use break keyword to break a loop.
* Declare and initiate an array.
* Loop in array to print all value
* Find the first 2 digits number in array

**Guidelines:**

### Step 1: Create project named FollowControl in Visual Studio

### Step 2: Open the Program.cs and update Main method

/// Defind array fibonacci and assigning values at the same time.

int[] fibonacci = { 1, 1, 2, 3, 5, 8, 13, 21, 34, 55 };

/// Defining array even with size 5. But not assigns values.

int[] even = new int[5];

/// Assign the value 10 in even array on its index 0

even[0] = 10;

/// Assign the value 20 in even array on its index 1

even[1] = 20;

/// Assign the value 30 in even array on its index 2

even[2] = 30;

/// Assign the value 40 in even array on its index 3

even[3] = 40;

/// Assign the value 60 in even array on its index 4

even[4] = 60;

/// Declares an 1D Array of string.

string[] weekDays;

/// Allocating memory for days.

weekDays = new string[] { "Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat" };

Console.WriteLine("The first 10 numbers of Fibonacci array!");

/// Print array by using index

for (int index = 0; index < fibonacci.Length; index++)

{

Console.WriteLine(string.Format("array[{0}] = {1}", index, fibonacci[index]));

}

/// Search the first 2 digits number in array

foreach (int number in fibonacci)

{

if (number >= 10)

{

Console.WriteLine("The first 2 digits number in array is: {0}", number);

break;

}

}

Console.WriteLine("All numbers of weekDays array!");

/// Displaying all Elements of weekDays array.

foreach (string day in weekDays)

{

Console.Write(day + " ");

}

/// Find the last number divided by 3 equal 0 of even array.

/// Count length of even array.

int length = even.Length;

for (int i = length - 1; i >= 0; i--)

{

if (even[i] % 3 == 0)

{

Console.WriteLine($"\nThe last number divided by 3 equal 0 of even array is: {even[i]}");

break;

}

}

Console.WriteLine("All numbers of even array!");

/// Using do-while loop to displays all element of even array.

int j = 0;

do

{

Console.Write(even[j]+ " ");

j++;

} while (j < even.Length);

/// Keep the console window open in debug mode.

Console.WriteLine("\nPress any key to exit.");

Console.ReadKey();

### Step 3: Run Applications.

Choose the F5 key to run the project.

Outputs

