3.6 Linear Search 



This section will guide you to:

* Create a Windows Console project in Visual Studio to do a Linear Search
* Create a method, runApp(), that will create an array and search for a value in it using Linear Search

**Development Environment**

* Visual Studio 2019 Community Version

This guide has five subsections, namely:

* + 1. Creating a Windows Console project in Visual Studio to do a Linear Search
    2. Adding a method, runApp(), that will create an array and search for a value in it using Linear Search
    3. Building the project
    4. Publishing and running the project
    5. Pushing the code to your GitHub repositories

**Step 3.6.1:** Creating a Windows Console project in Visual Studio to do a Linear Search

* Open Visual Studio.
* From the top menu, select **File->New->Project.**
* In **Create A New Project** screen, select **Console app (.NET Core)** from the list of available project types and click on **Next.**
* Enter **Project Name** as **Phase1Section4.13** and click on **Create.**
* This will create the files for a Windows Console project.

**Step 3.6.2:** Adding a method, runApp(), that will create an array and search for a value in it using Linear Search

* Select **Program.cs** as the current Code tab.
* Enter the following code:

**using** System;

**namespace** Phase1Section4.\_13

{

**class** Program

{

**static** **void** Main(**string**[] args)

{

runApp();

}

**public** **static** **void** runApp()

{

**int**[] marks = **new** **int**[10] { 56, 90, 76, 88, 82, 67, 98, 83, 67, 79 };

Console.WriteLine("Enter marks to search and press Enter:");

**string** input = Console.ReadLine();

**int** search = Int32.Parse(input);

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

{

**if** (marks[i] == search)

{

Console.WriteLine(marks[i] + " was found at location " + i);

**break**;

}

}

}

}

}

**Step 3.6.3:** Building the project

* From the top menu, choose **Build->Build Solution.**
* If any compile errors are shown, fix them as required.

**Step 3.6.4:** Publishing and running the project

* From the top menu, select **Debug->Start Without Debugging.**
* This will execute the program in a console window.

**Step** **3.6.5:** Pushing the code to your GitHub repositories

Open your command prompt and navigate to the folder where you have created your files.

cd <folder path>

Initialize your repository using the following command:

git init

Add all the files to your git repository using the following command:

git add .

Commit the changes using the following command:

git commit -m “Changes have been committed.”

Push the files to the folder you created initially using the following command:

git push -u origin master