2.2 Control Flow 

This section will guide you to:

* Create a Windows Console project in Visual Studio to show control flow
* Create a method doApp() which will demonstrate the use of various control flows

**Development Environment**

* Visual Studio 2019 Community Version

This guide has five subsections, namely:

* + 1. Creating a Windows Console project in Visual Studio to show control flow
    2. Adding a method doApp() in Program class which will demonstrate the use of various control flows
    3. Building the project
    4. Publishing and running the project
    5. Pushing the code to your GitHub repositories

**Step 2.2.1:** Creating a Windows Console project in Visual Studio to show control flow

* 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 Phase1Section3.6 and click on **Create.**
* This will create the files for a Windows Console Project.

**Step 2.2.2:** Adding a method doApp() in Program class which will demonstrate the use of various control flows

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

**using** System;

**namespace** Phase1Section3.\_6

{

**class** Program

{

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

{

doApp();

}

**public** **static** **void** doApp()

{

**int** x = 10;

**if** (x >= 10)

Console.WriteLine("This is a conditional statement.");

**switch** (x)

{

**case** 9:

Console.WriteLine("This is a switch statement resulting in 9");

**break**;

**case** 10:

Console.WriteLine("This is a switch statement resulting in 10");

**break**;

}

**while** (x < 20)

{

x++;

Console.WriteLine("Incrementing x in a while loop:" + x);

}

**do**

{

x--;

Console.WriteLine("Decrementing x in a do-while loop:" + x);

} **while** (x >= 10);

**for** (**int** i = 0; i <= x; i++)

{

Console.WriteLine("For loop to assign a value: " + i);

}

**string**[] numbers = { "One", "Two", "Three", "Four", "Five" };

**foreach**(**string** s **in** numbers)

{

Console.WriteLine("Foreach loop to iterate through an array :" + s);

}

}

}

}

**Step 2.2.3:** Building the project

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

**Step 2.2.4:** Publishing and running the project

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

**Step 2.2.5:** 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