ASSIGNMENT 4

TASK 1:

1. Create a new project folder named **assignment04** (all in lowercase).
2. Open the new project folder in Visio Studio Code
3. Follow the guidance in the *Creating an HTML Document* handout create a new HTML document named **index.html** (all lowercase) and save it to your **assignment04** folder.
4. In the <head> section of the document, include a link to the latest version of the jQuery CDN.
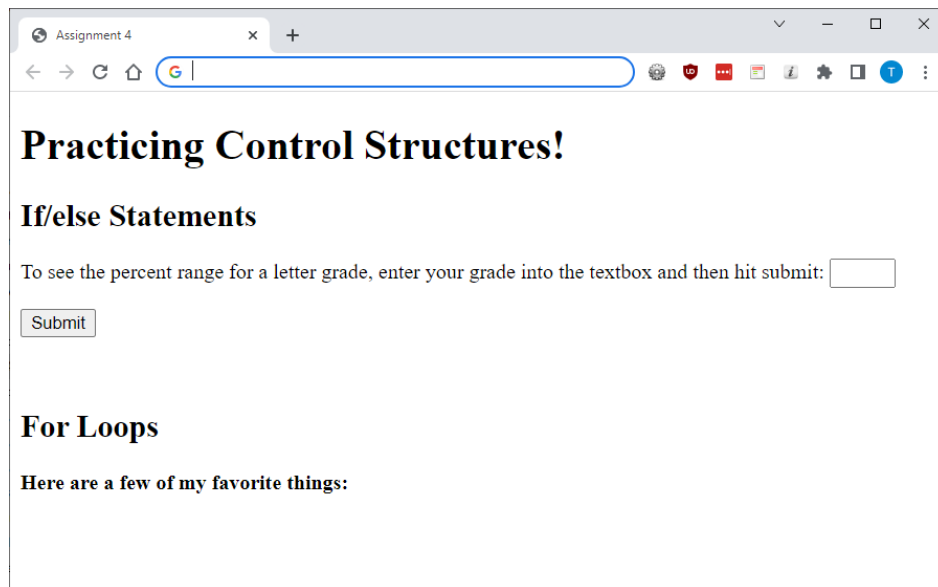
TASK 2:

1. Open **index.html**:
   a. Set the value of the `<title>` tag to **INFO 2340 - Assignment 4**
   b. In the `<body>` of index.html, insert the markup shown in Figure 1 (below):

```html
<h1>Practicing Control Structures!</h1>
<h2>If/else Statements</h2>
<p>To see the percent range for a letter grade,
  enter your grade into the textbox and then hit submit:
<input id="letter-grade" type="text" size="2"></p>
<button id="action">Submit</button>
<p id="percent-range" style="font-style:italic"></p>
<br>
<h2>For Loops</h2>
<p style="font-weight:bold">Here are a few of my favorite things:</p>
<div id="my-favorites"></div>
```

Figure 1

When completed, your html page should look like the example below:

TASK 3:

1. Create a new JavaScript file named **assignment04.js** and save it to your **assignment04 folder**
2. Download **starter.txt** from the **Assignment 4 Resources** in Canvas.
   a. Figure 2 (right) shows the content of **starter.txt**
3. COPY the contents of **starter.txt** and PASTE the contents of **starter.txt** into your **assignment04.js** file.
   a. NOTE: do not link directly to **starter.txt**

```
1   $(document).ready(function() {
2       $('#action').click(function() {
3
4           var letterGrade = $('#letter-grade').val().toUpperCase();
5           var myFavoriteThings = [];
6               myFavoriteThings.push("My First favorite thing");
7               myFavoriteThings.push("My Second favorite thing");
8               myFavoriteThings.push("My Third favorite thing");
9               myFavoriteThings.push("My Fourth favorite thing");
10
11          //Write your letter grade decision structure between this comment...
12
13          //...and this comment
14
15
16          //Now, write a for loop for
17          //your myFavoriteThings array between this comment...
18
19          //...and this comment
20
21      });
22  });
```

Figure 2

Then, complete the following:

Part One: If/else statements

Your task for the first part of this assignment is to write the code that will allow a user to enter a letter grade (A, B, C, etc.) and after hitting submit, a message will appear on the page showing a percent range for that grade ("The percent range is 90% to 100%"), etc. Here are the specifics:

1. Write a decision structure (if/else if/else statements) that evaluates the value of the **letterGrade** variable.
    a. The letterGrade variable has already been declared and assigned for you on line 4 in the starter.txt content you copied.
    b. Let's take a closer look at this line before we continue:
        ```
        var letterGrade = $('#letter-grade').val().toUpperCase();
        ```
    c. The first part just declares a variable with the name letterGrade and the value for this variable is defined after the = sign. Explaining in detail what the different parts of the value is beyond the scope of this course, but to summarize:
        i. $('letter-grade') is the id name of the input box the user will type a letter grade into
        ii. The rest of the line allows the user to type in either a lower case or uppercase letter. Without this, an upper-case A would be treated differently than a lower-case a.
2. Write the code so that *if* the user inputs a letter grade of A (in other words, if the value of the letterGrade variable equals A), then the text "The percent range is 90% to 100%" will appear in the space below the submit button.
3. Otherwise, if the user inputs a letter grade of B, your code should write, "The percent range is: 80% to 89%"
    a. Repeat this process for the following letter grades and ranges:
        *   Letter grade C - "The percent range is: 70% to 79%"
        *   Letter grade D - "The percent range is: 60% to 69%"
        *   Letter grade F - "The percent range is: Less than 60%
4. Write a statement that will output the message "Error! Invalid value entered" is anything other than the values A, B, C, D, or F is entered.
5. Use the jQuery .text() method to write all the messages for this decision structure to the paragraph with the **id** attribute value of **#percent-range**.

Part Two: Create a for loop to output the elements of an array

1. On lines 6 – 9 of the starter code (Figure 2) replace each of the current values in the parentheses ("My First favorite thing"), etc. with four of your own favorite things (example: "Reading a good book"), etc.
    a. What you are doing here is adding elements to an array named myFavoriteThings that has already been declared for you.
2. Write a **for loop** structure that outputs the elements in the **myFavoriteThings** array. Use the jQuery **.append()** method to output the elements of the array to the element with the **id** attribute value of **#my-favorites.** The items in the array should display vertically.

Continued on the next page

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SUBMISSION

To submit the completed assignment to the Canvas dropbox:
1. Create a zip file of the **assignment04** folder (see links below for instructions on creating a zip file)
    - Creating a zip file - Windows
    - Creating a zip file - Mac

2. Name this zip file **LastName_04.zip** (where LastName is your own last name).
3. Submit LastName_04.zip to the assignment dropbox in Canvas