Research week 3

1. Select **five** methods from the **String JavaDocs** and describe the following for each:

(a) What is the method signature?

(b) What does the method do?

(c) Why would this method be useful (how could you use it)?

=> 1- equal string method

   a) Syntax: string variable = "name";

      variable.equals("name");

   b) it consists of comparing two strings if they are equal. It returns a Boolean value.

   c) It useful because we can use it to insert a condition statement.

  2- length string method

   a) Syntax: variable.length ("name");
   b) It consists of returning the length of a specific string or object i.e it tells the number of characters stored in a specified string.
   c) It's useful because the length of a string can be modified using the various operations on an object.

  3- charAt string method

   a) Syntax: char result = name.charAt(index);
   b) returns the character from the specified index. Characters in a string are indexed from left to right. The index of the first character is 0, and the index of the last character in a string, called stringName, is stringName. length – 1.
   c) returns the character at the specified index in a string. The index of the first character is 0, the second character is 1, and so on.

  4- indexOf string method

   a) Syntax: int result = name.indexOf(character)
   b) It consists of returning the position of the first occurrence of a value in a string.
   c) It is useful to find the character index.

  5- toUpperCase string method

   a) Syntax: string result = name.toUppercase( ):
   b) It consists of a static method in the Character class in Java that converts a character to uppercase. The input for this function is a character. If you need to convert a string to uppercase, refer to the String.
   c) It is useful because it converts a string to upper case letter.

Citations: https://www.w3schools.com/java/java_ref_string.asp

     ahttps://www.youtube.com/watch?v=P9hEmbfdiuc

Research week 3

2. Select **five** methods from the **Array JavaDocs** and describe the following for each:

(a) What is the method signature?

(b) What does the method do?

(c) Why would this method be useful (how could you use it)?

=> 1- asList array method

    a) Syntax: Arrays.asList (arr);
    b) It consist of taking an array and returns it as a data structure from java collection class commonly known as a list.
    c) We use it because it provides more functionality and flexibility to add and remove elements

    2- fill array method

    a) Syntax: Arrays.fill (arr, value)
    b) It consists of assigning a specific data type value to each element of a range of the specified array
    c) We used it because it sets each element to a default value.

    3- copyOf array method

    a) Syntax: Arrays.copyOf(arr1, arr1.length);
    b) It consists of easily duplicating an existing array.
    c) We use it because we want to utilize existing value in a different array introduced earlier.

    4- equals array method

    a) Syntax: Arrays.equals(arr1, arr2);
    b) It consists of checking up the content of two different arrays. It returns a Boolean value whether they are equal or not.
    c) It is useful because it specifically compares the reference values and objects.

    5- compare array method

    a) Syntax: Arrays.compare(arr1, arr2);
    b) It consists of comparing 2 arrays. If the two arrays have the same number of elements and all the elements are equal, it returns a zero. Otherwise, if arr1is lexicographically first, it returns a negative number. If the arr2 is lexicographically first, it returns a positive number.
    c) It is useful because it gives a little more information other than just true and false.

Citations: https://www.youtube.com/watch?v=86B96Fy6j6U1

        https://www.w3schools.com/java/java_ref_string.asp

3. What is your favorite thing you learned this week?

=> this week has been challenging. In all honesty, there is nothing that I favor learning. However, I am here to overcome each and every challenge that the program presents. I am content to learn new things that I had no idea off.