IMY 220
Practical 3:
JavaScript

Due: Friday 10 September @ 9:20

The submission instructions are available on ClickUP. Any deviation from these instructions will cause a 10% deduction from your mark.

Instructions

- For this practical, you will need to add JavaScript functionality to make the code in *index.html* work as discussed below. You are not allowed to edit index.html, except for including your own JavaScript file and your name and surname. You must put your name and surname in the "author" meta tag.
- Create a file called *script.js* and include it in *index.html*. All your code for this practical must be written inside this file.
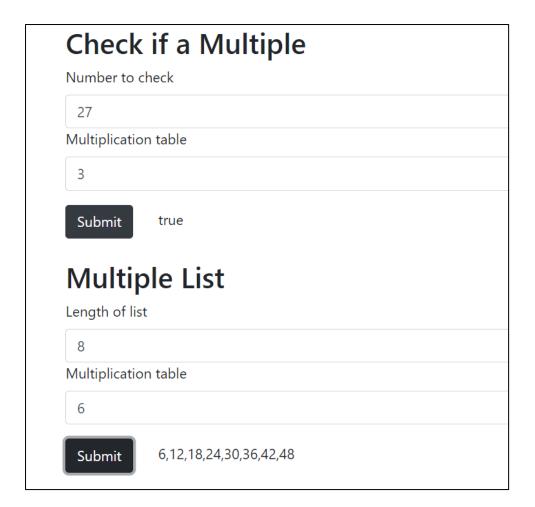
Section 1: JavaScript OOP

Define a constructor for an object called *MultipleChecker* (the constructor should not take any arguments). Do not use the "Object" keyword. This object must have two member functions called *isMultiple* and *fillArray* which respectively do the following:

- *isMultiple* should take two arguments as its parameters and returns true/false depending on whether the first supplied argument is a multiple of the second argument.
- *fillArray* should take two arguments as its parameters and return an array filled with the first n multiples of the second supplied argument, where n is the first supplied argument.
- (You may assume that the supplied arguments will always be a positive integer.)

Create an instance of the *MultipleChecker* object and use its functions within event handlers so that when the relevant buttons are clicked the input values are checked and the results are shown underneath the input boxes. (See next page for examples.)

The event handlers should be called inside *script.js* (not *index.html*).

Section 2: Pangram Checker

Create a function called *checkPangram* which takes a string as its parameter and checks if this string is a pangram. (A pangram is a sentence (it can also be a word) that contains all 26 letters of the alphabet e.g., "The quick brown fox jumps over the lazy dog".) To accomplish this, you **must** use JavaScript array functions; do not write your own loops for this section.

HINT: to be able to call JS array functions on individual characters in a string, you must first convert the string to a character array.

Note: if you write your own loops, you will still receive some of the marks. You will receive more marks for submitting code that uses loops and successfully checks for pangrams than for code that does not work at all.

Add the necessary event handlers to update *span#pangramResult* when the button under Check Pangram is clicked, for example:

Additional Information

- Refer to the slides as well as MDN website (https://developer.mozilla.org/en-US/) for help

Submit only the following file(s) according to the submission instructions.

- *index.html*
- *script.js*