

## Lab 9 – Array Computation Exercises

<https://rkkuhn.github.io/N220Spring2023/>

### Algorithm 1<sup>st</sup> Project – Bad Word Catcher

**Requirements:** For this exercise, bad words are: **clear, water, tires**.

Create an application that:

- Takes input from a user using a simple text input field.
- Splits the string into spaces
- Loops through the array, looking for bad words in the array
  - Adds 1 to a tally count when a bad word is found
- Outputs to the document
  - If any bad words were found (found / not found)
  - How many bad words, in total, were found
- Clears out the text field so the user can input a new string

For example, if the user input "clear water is clear", there are 3 bad words in the string.

### **Expected Output:**

#### **Bad Word Catcher**

Enter your text here

Bad words found: 2  
Modified text: The \*\*\* is not \*\*\*

### **Sudo Code:**

HTML

JS

Create heading Bad word Catcher

Input type = "text" id = "textInput" placeholder = "Enter your text here"

Create onclick button name checkBadWords()

Global var. badWord – clear, water tires

Create checkBadwords function

Use iinputText = document.getElementById

Split the txt entered into individual words

Let badWordCount = 0

Create a stand for statement

If (badWords.includes (wordsArray[i]))

badWordCount++ // Increases the count number when a bad word is found

wordsArray[i] = "\*\*\*\*" // replaces the bad words with \*\*\*\*

Create outputElement p document.getElementById

Reference the HTML page in two ways

Bad words found:

No bad words found

Clear the input text field

## Algorithm 2<sup>nd</sup> Project – Bad Word Catcher Array

**Requirements:** For the purposes of this exercise, bad words are: clear, water, tires. Recreate the above exercise, but using the array.filter and array.includes methods.

### Expected Output:

clear water tires    Catch Bad Words  
clear, water, tires  
3

### Sudo Code:

## HTML

Create input type with hard code of bad words

Create onclick button command

Create two div's

wordsFound

wordAmount

## JS

Create function badWordCatch

Get input from document.getElementById

Change characters entered to lower case

Create split

Look for the following bad words

Do case match

Bad words

Number found

## Algorithm 3rd Project – Make Divs

**Requirements:** Given the array

```
let objects = [  
  { color: "#FF0000", height: 100, width: 300 },  
  { color: "#FFFF00", height: 200, width: 200 },  
  { color: "#ff0000", height: 300, width: 100 },
```

];

Write a loop that creates three divs based on the data in the array. You should only have one `document.createElement` in your code.

### **Expected Output:**

Click the button to make a DIV element.

Try it

Click the button to make a DIV element.

Try it

This is a div.  
This is a div.  
This is a div.

### **Sudo Code:**

HTML

Creat an onclick button with instructions telling the user to click it.

JS

Create the function `createDiv(obj)`

Set up `div = document.createElement("div")`

Div for width

Div for height

Div for color

Use `appendChild(div)`

Create myFunction

Create the array for the color, height, and width

For statement

`createDiv(objects[i])`

**Reflection:** Arrays and lists are my favorite to do. I find them easy. I guess it has to do with being forced to use them in several different classes started in computer II. This assignment I did not find too difficult. Once I had the general idea of what I wanted to do on paper,

**the rest was getting it down in Visual Studio Code. I do have a question for you. I use a Mac. When I try to look at my work in Safari it is slow or does not want to pull. Yet, Firefox and Google I have no issues. Why is that? Is there a way to code that works with Safari?**