TECHCareers
A MANPOWER PROGRAM

React Calculator Assignment

Deadline: Tuesday, JUL 28 2020, 09:00 AM

GitHub Classroom Link: https://classroom.github.com/a/J2INSxBk

REMEMBER TO SET REPO TO PRIVATE UNTIL AFTER DUE DATE

Introduction

This assignment is meant to challenge your knowledge of state, prop and element rendering in React. React is currently one of the most popular and sought after front end technology at the moment, and having skills with it will greatly increase your employability.

Requirements

- ❑ Create two input fields that can take in numeric values
- ❑ Create a select (drop down box) which allows the user to choose what operation to apply to the two numeric fields - your operations must include addition, subtraction, multiplication, and division
- ❑ Output to the user the result of the calculation

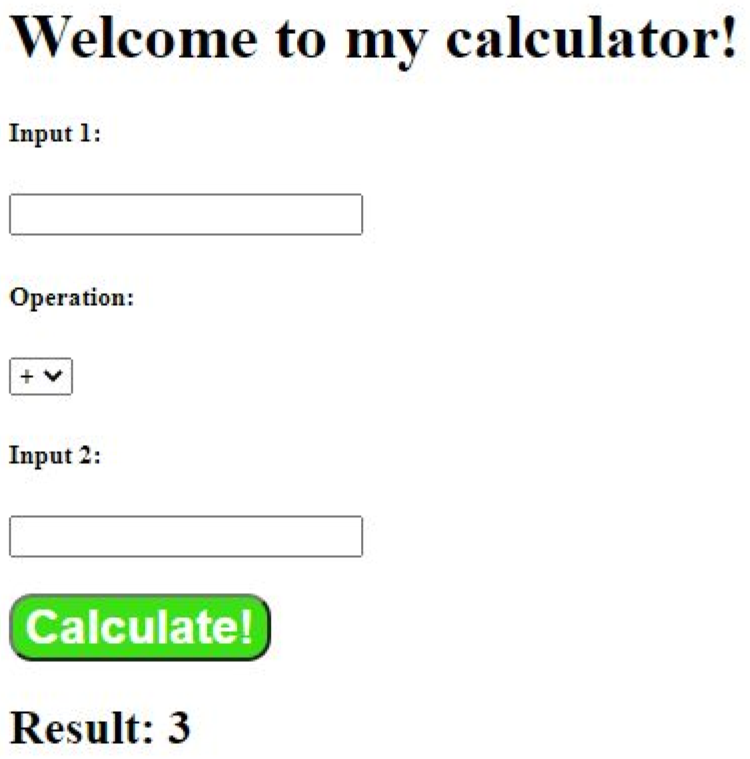
Challenges

- ❑ Make it look nice with some CSS!
- ❑ Protect data input - return a message to the user if the user inputs a non-numeric character
- ❑ Have a single input field which can read the operations

Hints

- Look over what was done in class! It should contain all the tools necessary to get started on this assignment
- Take advantage of online resources! Most of the tasks we assign are very standard examples
- Focus on the requirements before moving on to the challenges! Challenges are extra
- Comment your code and commit/push your work regularly

Sample Screenshot



Welcome to my calculator!

Input 1:

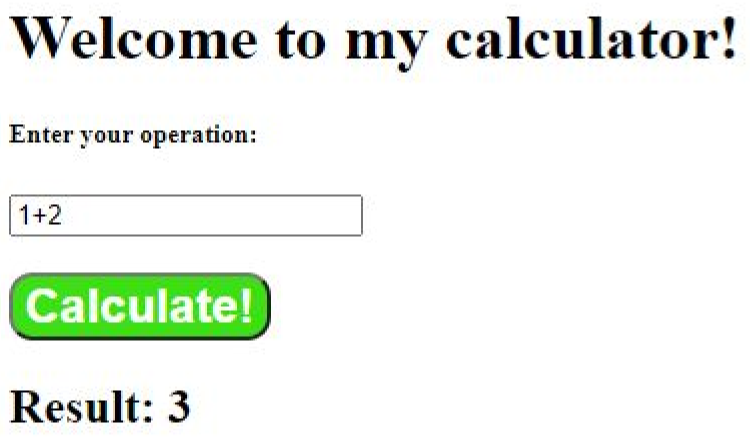
Operation:

+

Input 2:

Result: 3

Sample Challenge Screenshot



Welcome to my calculator!

Enter your operation:

1+2

Result: 3

Rubric

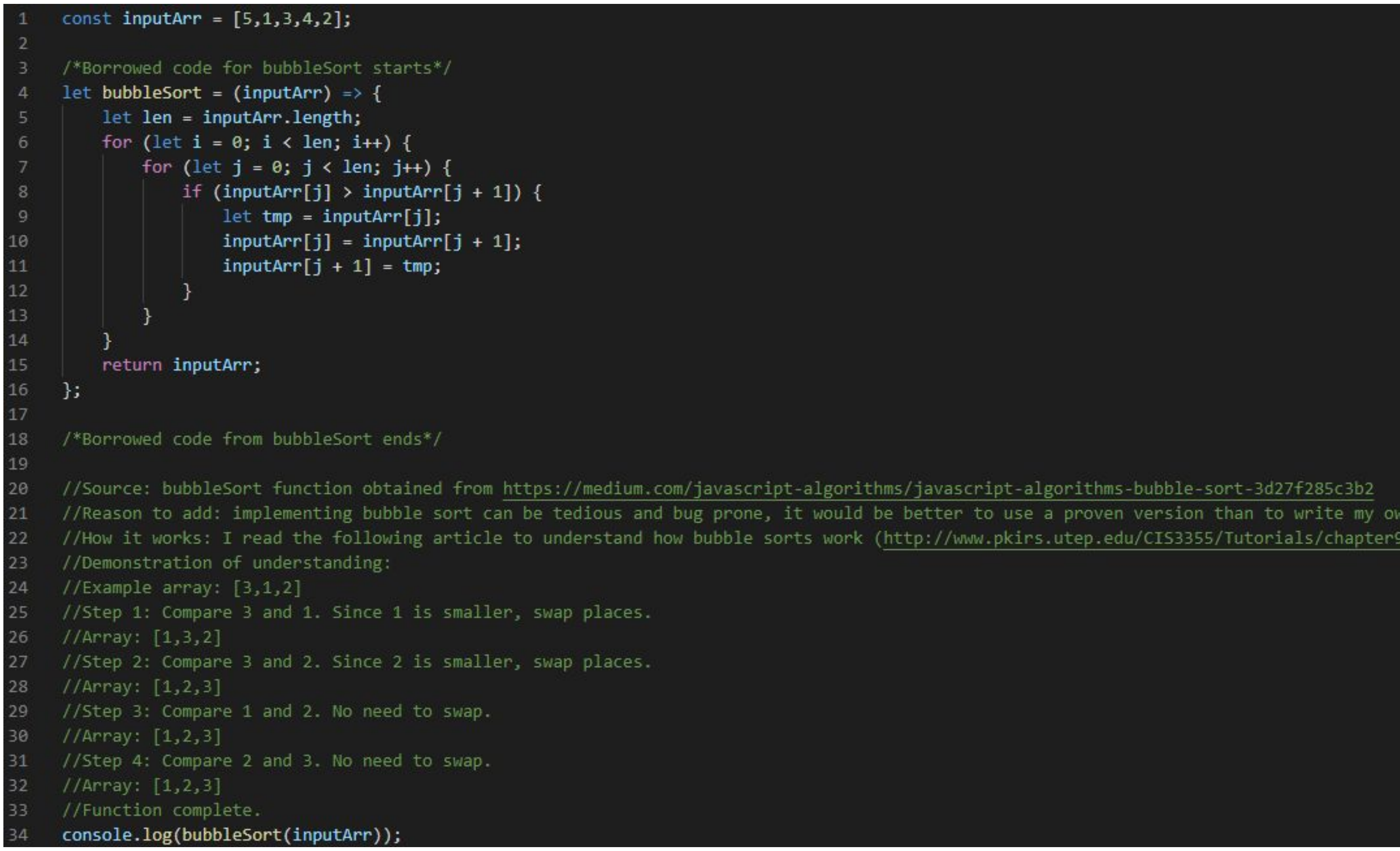
You will be evaluated on the following points. You must get all 3 of the Mandatory points to pass:

Requirement	**Points**
MANDATORY: ● Create two input fields that can take in numeric values ● Create a select (drop down box) which allows the user to choose what operation to apply to the two numeric fields - your operations must include addition, subtraction, multiplication, and division ● Output to the user the result of the calculation	3
CHALLENGE: ● Make it look nice with some CSS! ● Protect data input - return a message to the user if the user inputs a non-numeric character ● Have a single input field which can read the operations	3
Total:	3

Citation Guide

Whenever you borrow code, the following information must be included:

- ❑ Comments to indicate both where the borrowed code begins and ends.
- ❑ A source linking to where you found the code.
- ❑ Your reason for adding the code to your assignment/project instead of writing it out yourself
- ❑ How it works. Explain to us how the code is supposed to work, include links to documentation/articles you read to help you understand.
- ❑ A small demonstration to prove you understand how the code works.



```javascript
const inputArr = [5,1,3,4,2];

/*Borrowed code for bubbleSort starts*/
let bubbleSort = (inputArr) => {
    let len = inputArr.length;
    for (let i = 0; i < len; i++) {
        for (let j = 0; j < len; j++) {
            if (inputArr[j] > inputArr[j + 1]) {
                let tmp = inputArr[j];
                inputArr[j] = inputArr[j + 1];
                inputArr[j + 1] = tmp;
            }
        }
    }
    return inputArr;
};

/*Borrowed code from bubbleSort ends*/

//Source: bubbleSort function obtained from https://medium.com/javascript-algorithms/javascript-algorithms-bubble-sort-3d27f285c3b2
//Reason to add: implementing bubble sort can be tedious and bug prone, it would be better to use a proven version than to write my ow
//How it works: I read the following article to understand how bubble sorts work (http://www.pkirs.utep.edu/CIS3355/Tutorials/chapter9
//Demonstration of understanding:
//Example array: [3,1,2]
//Step 1: Compare 3 and 1. Since 1 is smaller, swap places.
//Array: [1,3,2]
//Step 2: Compare 3 and 2. Since 2 is smaller, swap places.
//Array: [1,2,3]
//Step 3: Compare 1 and 2. No need to swap.
//Array: [1,2,3]
//Step 4: Compare 2 and 3. No need to swap.
//Array: [1,2,3]
//Function complete.
console.log(bubbleSort(inputArr));
```