Janine Chrystal Ampusta BSIT 3 – 1N

Activity #5 - Array

1. Write a JavaScript program called menuSelector that allows users to select a fruit from a menu. The program should utilize an array to store the available fruits and implement a do-while loop to allow users to make selections until they choose to exit.

Requirements

1. **Create an Array**: Define an array called fruits that contains at least five different fruit names, such as:
    - "Apple"
    - "Banana"
    - "Cherry"
    - "Date"
    - "Elderberry"
2. **Display Menu**: Use a do-while loop to display a menu to the user with the following options:
    - Select a fruit by its corresponding number (1 to 5).
    - Exit the program.
3. **Use Switch Statement**: Implement a switch statement to handle the user's selection and display a message indicating the selected fruit.
4. **Error Handling**: If the user selects an invalid option (e.g., a number not in the range or a non-numeric input), display an error message.
5. **Continue or Exit**: After processing the selection, prompt the user to ask if they want to continue. If they respond with "no," exit the loop and thank them for using the menu

Code

```
//For user to input
const readline = require('readline');
const rl = readline.createInterface({
    input: process.stdin,
    output: process.stdout
});

//Declaring some variables
const fruits = ["Apple", "Banana", "Cherry", "Date", "Elderberry"];
let addedFruits = [];

//Function that displays the menu
function menu(){
```

```
    console.log("\nFruit Menu:");
  for (let i = 0; i < fruits.length; i++) {
    console.log((i + 1 + ". ") + (fruits[i]));
  }
  console.log("6. Exit\n");
}

//For answer to question
const askQuestion = (question) => {
    return new Promise((resolve) => {
        rl.question(question, (answer) => {
            resolve(answer);
        });
    });
};

//Displays the menu 1 time
menu();

(async function selectFruit() {
    let continueProgram;

    //start of do-while
    do {

        //Allows the user input a number to select fruit
        let addFruit = await askQuestion("Enter a number to select a fruit: ");
        addFruit = Number(addFruit);

        //Identifying what fruit is the user's input by switch case and array
        //then stores the fruit to the addedFruits variable
        switch (addFruit) {
            case 1:
                console.log("You selected:" + fruits[0]);
                addedFruits.push(fruits[0]);
                break;
            case 2:
                console.log("You selected:" + fruits[1]);
                addedFruits.push(fruits[1]);
                break;
            case 3:
                console.log("You selected:" + fruits[2]);
                addedFruits.push(fruits[2]);
                break;
            case 4:
                console.log("You selected:" + fruits[3]);
                addedFruits.push(fruits[3]);
```

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```
                break;
            case 5:
                console.log("You selected:" + fruits[4]);
                addedFruits.push(fruits[4]);
                break;
            case 6:
                console.log("You have exited the program!");
                continueProgram = false;
                break;
            default:
                console.log("Invalid value. Select a number between 1 and 6.");
                continueProgram = true;
        }

        //Asks the user to exit or continue
        if (addFruit !== 6) {
            let continueResponse = await askQuestion("Do you still want to add
fruit? (yes/no): ");
            continueProgram = continueResponse.toLowerCase() === "yes";
        }
    } while (continueProgram);

    // Once the user exits, this displays the selected fruits
    console.log("\nYou have selected the following fruits:");
    if (addedFruits.length > 0) {
        addedFruits.forEach((fruit, index) => {
            console.log(`${index + 1}. ${fruit}`);
        });
    } else {
        console.log("No fruits selected.");
    }

    rl.close();     //program close
})();
```

Output

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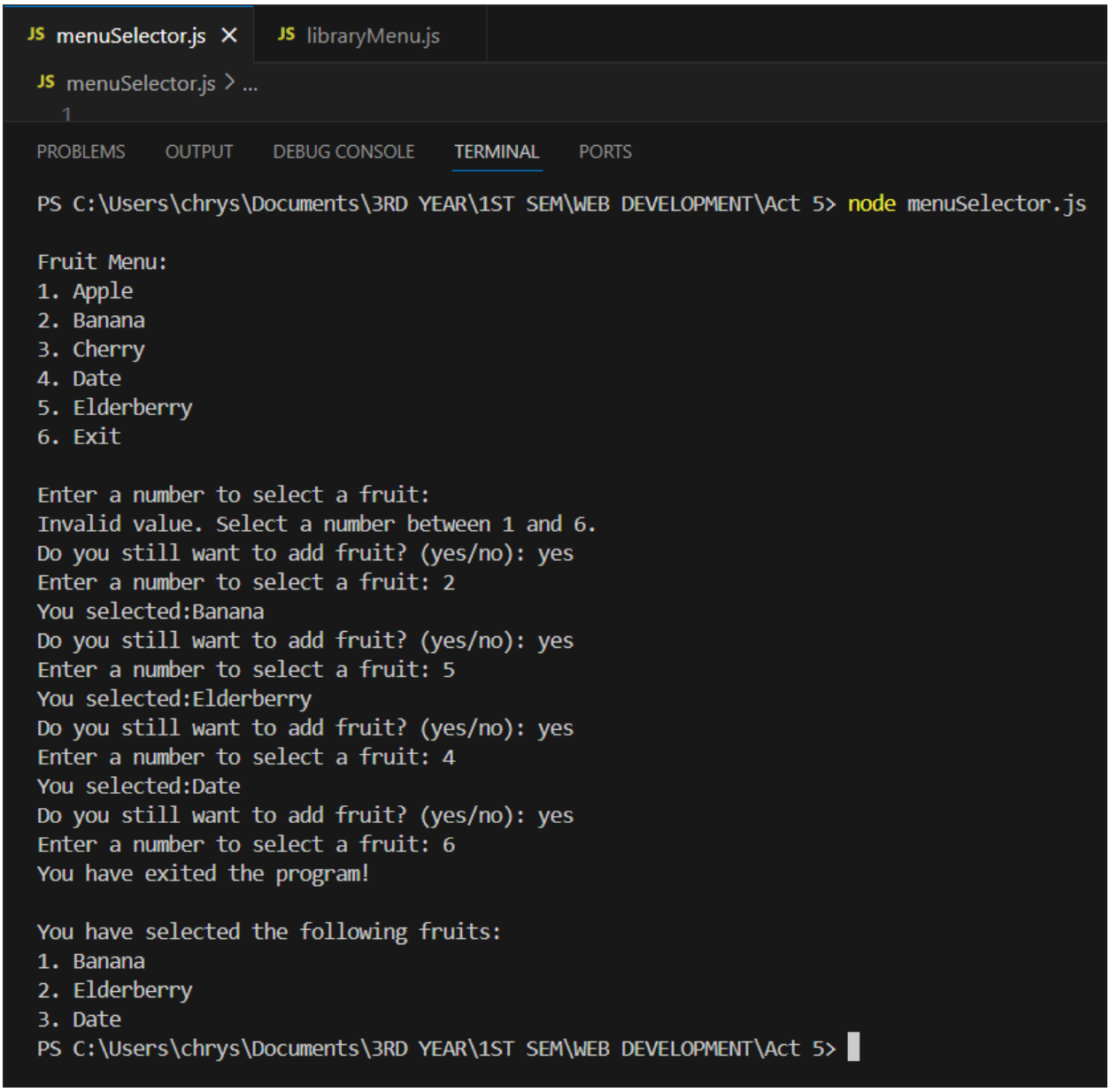

2. Write a JavaScript program called libraryMenu that allows users to manage a library of books. The program should use an array to store book titles and implement a do-while loop to allow users to select options for viewing, adding, or removing books until they choose to exit.

Requirements

1. **Create an Array**: Define an array called books that contains at least five different book titles (e.g., "1984", "To Kill a Mockingbird", "The Great Gatsby", "Moby Dick", "Pride and Prejudice").
2. **Display Menu**: Use a do-while loop to display a menu with the following options:
    - View all books
    - Add a new book

- Remove a book
- Exit the program

3. **Use Switch Statement**: Implement a switch statement to handle the user's selection and perform the corresponding action.
4. **Error Handling**: If the user tries to remove a book that doesn't exist, display an error message.
5. **Continue or Exit**: After processing the selection, ask the user if they want to continue. If they answer "no," exit the loop and thank them for using the library.

Code

```
//For user to input
const readline = require('readline');
const rl = readline.createInterface({
    input: process.stdin,
    output: process.stdout
});

//Declaring variables
const books = ["1984", "To Kill a Mockingbird",
    "The Great Gatsby", "Moby Dick", "Pride and Prejudice"];

//Function that displays the available books
function bookAvail(){
    console.log("\nAvailable Books:");
  for (let i = 0; i < books.length; i++) {
    console.log((i + 1 + ". ") + (books[i]));
  }
  console.log("\n")
}

//Display Actions Menu
console.log("LIBRARY MENU, ACCEPTABLE ACTION LIST:");
console.log("A - VIEW ALL BOKS");
console.log("B - ADD NEW BOOK");
console.log("C - REMOVE A BOOK");
console.log("D - EXIT THE PROGRAM\n");

//Displays the books available in the library
bookAvail();

//For answer to question
const askQuestion = (question) => {
    return new Promise((resolve) => {
        rl.question(question, (answer) => {
            resolve(answer);
```

```
        });
    });
};

// Add books
async function add() {
    // Ask the user to choose a book by its number
    const userInput = await askQuestion("Enter the book you want to add: ");
        console.log(userInput+ " has been added to your list.\n");
        books.push(userInput); // Add the book to the user's list

};

// Remove books
async function remove() {
    // Ask the user to choose a book by its number
    const userInput = await askQuestion("Enter the number of the book you want to
remove: ");
    const index = parseInt(userInput, 10); // Convert the input to a number

    // Check if the number is valid (within the range of available books)
    if (index >= 1 && index <= books.length) {
        const selectedBook = books[index - 1]; // Get the book from the list
        console.log(selectedBook + " has been removed from the list.\n");

        // Remove the book from the books array using splice()
        books.splice(index - 1, 1); // Remove 1 book at the given index (index
starts from 0)
    } else {
        // If the input is not valid, show an error message
        console.log("Invalid book number. Please select a number from the
list.\n");
    }
}


(async function library(){
    let continueProgram;

        //start of do-while
        do {
            //Allows the user choose an action
            let action = await askQuestion("Enter a letter to select an Action:
");

            switch (action.toUpperCase()) {
                case 'A':
```

```
                    bookAvail();
                    break;
                case 'B':
                    await add();
                    bookAvail();
                    break;
                case 'C':
                    await remove();
                    bookAvail();
                    break;
                case 'D':
                    console.log("\nThank you for using the library menu!");
                    bookAvail();
                    return; // Exit immediately
                default:
                    console.log("Invalid input. Enter a letter corresponding to
an action (A/B/C/D).\n");
            }

            //Asks the user to exit or continue
            const continueResponse = await askQuestion("\nDo you still want to
continue? (yes/no): ");
            continueProgram = continueResponse.toLowerCase() === "yes";

        } while (continueProgram);


    rl.close();     //program close
})();
```

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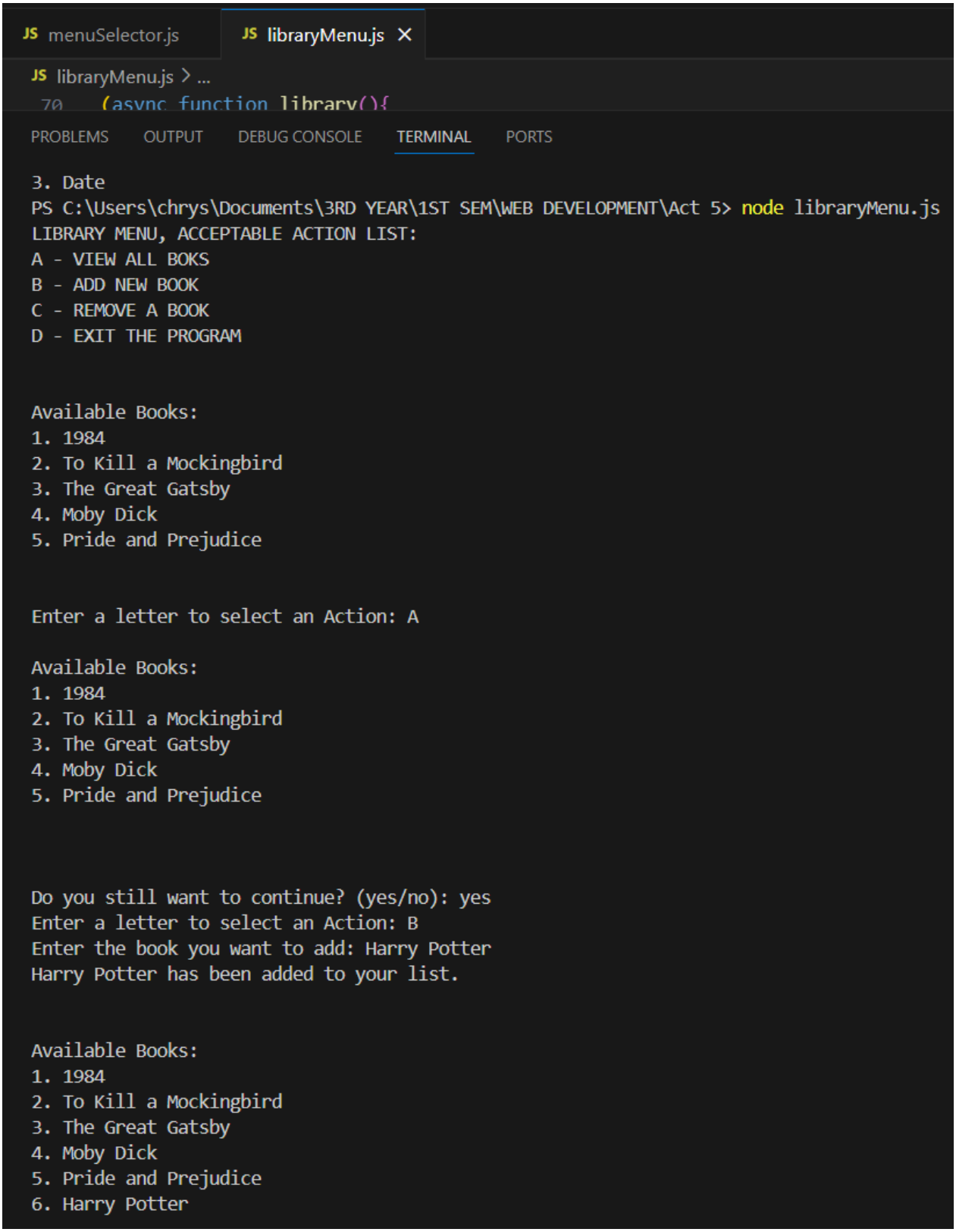
Output



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```
Do you still want to continue? (yes/no): yes
Enter a letter to select an Action: C
Enter the number of the book you want to remove: 1
1984 has been removed from the list.


Available Books:
1. To Kill a Mockingbird
2. The Great Gatsby
3. Moby Dick
4. Pride and Prejudice
5. Harry Potter



Do you still want to continue? (yes/no): yes
Enter a letter to select an Action: D

Thank you for using the library menu!

Available Books:
1. To Kill a Mockingbird
2. The Great Gatsby
3. Moby Dick
4. Pride and Prejudice
5. Harry Potter
```