

8/31/2020

## CS303 Object Oriented and Functional Programming in JavaScript

### W1D3 Objects

**Part I:** Complete the following tasks from The JavaScript Language book. Try to answer them before looking at the solutions. For the ones asking you to write code do that in VSCode and use the esLint coding conventions we gave you. These are all from the chapter Objects: the basics.

#### Section Objects:

- Hello, object
- Check for emptiness (include the tests in VSCode)
- Constant objects?
- Sum object properties
- Multiply numeric properties by 2

#### Section Object methods, “this”

- Using “this” in object literal
- Create a calculator
- Chaining

#### Section Constructor, operator “new”

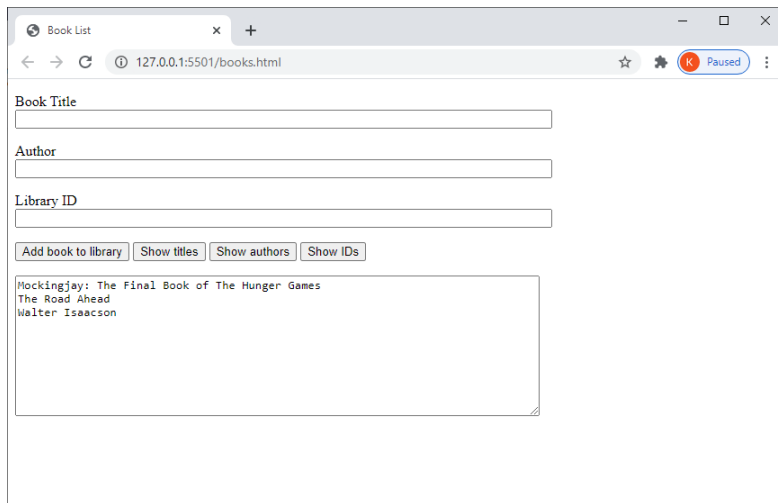
- Two functions – one object
- Create new Calculator
- Create new Accumulator (include the tests in VSCode)

**Part II.** Write a JavaScript program that will accept title, author, and libraryID values from an HTML page and create new book objects for each entry.

- Include buttons with the following values and “titles” ( the part after the colon, which should appear on mouseover)
  - Titles: list all titles, sorted alphabetically
  - Authors: list all authors, sorted
  - libraryID: sorted
- There should be a separate textarea where the titles, authors, or libraryIDs will be displayed depending on which button is selected. Use the eslint conventions including JS Doc for any functions.
- Hint: you might find the `myArray.join(“\n”)` method useful.

```
let library = [  
  {  
    title: 'The Road Ahead',  
    author: 'Bill Gates',  
    libraryID: 1254  
  },  
  {  
    title: 'Walter Isaacson',  
    author: 'Steve Jobs',  
    libraryID: 4264  
  },  
  {  
    title: 'Mockingjay: The Final Book of The Hunger Games',  
    author: 'Suzanne Collins',  
    libraryID: 3245  
  }  
];
```

Below is a simple example of what your HTML page might look like:



Book List

Book Title

Author

Library ID

Add book to library Show titles Show authors Show IDs

Mockingjay: The Final Book of The Hunger Games  
The Road Ahead  
Walter Isaacson