**JSDOM: Render Pattern**

**Instructions**

You are helping your local bookstore build a shopping cart for their website. The list of books, prices and quantities are stored in an array named books. You wish to create a few helper functions to display the cart, sort the books and make small modifications to the cart.

**Existing Files**

| **file path** | **description** |
| --- | --- |
| index.html | Contains the initial HTML page with placeholder elements. Your render() function will target these elements. You should not edit the HTML file in any way. |
| index.css | A few basic styles. This challenge does not focus on style. You may ignore this file. |
| index.js | You need to write your JavaScript code in this file. This is the only file that you need to edit. |
| test/render.test.js | The tests your code will run against. You do not need to edit this file. |

**Tasks**

The books array contain books in the following format:

{

"title": "",

"authors": ["", ""],

"description": "",

"price": 0,

"rating": 5,

"quantity": 1

}

Write the following functions in the index.js file.

**renderBook()**

This function accepts a book object in the format described above.  
Create and return the HTML to render a single book. The HTML for a single book should look like this:

<div class="book">

<div class="details">

<div class="title">

Elements of the Theory of Computation

<span class="rating">(4.7 stars)</span>

</div>

<div class="authors">by Harry Lewis, Christos H. Papadimitriou</div>

<div class="description">

Algorithms, complexity analysis, and algorithmic ideas are introduced

informally in Chapter 1, and are pursued throughout the book.

</div>

<button class="removeBtn">Remove from cart</button>

</div>

<div class="quantity">2 @ $182.65</div>

<div class="price">$365.30</div>

</div>

**calculateTotal()**

Calculate the total price of all items in the cart. Take into consideration that some items have a quantity > 1. return the total price.

**render()**

Render the array of books and the cart total and insert them into the DOM.  
The books should be rendered in the section with id "cartItems". If there are no items in the cart the text "Nothing in cart" should be inserted here instead.  
The total should be rendered in the div with class "total-price" in the section with id "cartTotal". If there are no items in cart the total should show "\$0".

**sortByPrice()**

Sort the books array by price in ascending order.

Attach an event listener to the #sortBtn button that firsts sorts the array with the sortByPrice() function then calls render().

**main()**

Perform all the startup tasks in the main function.

* attach required event listeners
* call the render() function