



Assignment # 4

Deadline 11:59 the day before the Lab

Book Donation App

You are required to develop a book donation App that allows people to donate their unused books to people who needs it.

The book donation system should have the following classes

a) **Book** – bookId, title, author, imageUrl, donor, status

Donor property is an object having of the details of the person who donated the book.

Note that the **status** attribute can have one of the following values:

- **Pending** : As soon as the user adds the book s/he want to donate to the system, the status is set to pending

- **Available** : When the book donor delivered the book to the store then status of the book becomes available

b) **Donor** - donorId, firstname , lastname , phoneNumber , street, city, email, password

c) **BookCatalog** – contains list of books and the following methods

addBook	Input: book object. Adds a book to the list of books. All books are pending when they are first added.
updateBook	Input: book. Updates the book that having matching bookId.
deleteBook	Input: bookId. Deletes the book from the list of books.
getBooks	Returns all the books that are not pending.
getDonorBooks	Input donorId. Returns all the books donated by a particular donor.
getTopXDonors	Input: donorsCount. Returns the top book donors. Eg. If the user passes 3 as donorsCount parameter then this function returns the top 3 donors and the list of books each one donated.

➔ You do not need to create **Donor** and **Book** classes. Just create the objects directly. And test your code by creating **app.js** file to instantiate the **BookCatalog** class and test its methods.

Note that you should make use of the **JavaScript features and capabilities** such as **arrow functions**, array functions (**.map**, **.reduce**, **.filter**, **.splice**, **.sort...**), **spread operator**, **object literals**, **classes**. Marks will be deducted for using traditional programming styles such as searching an array using **loops**.

After you complete the lab, fill in the **Lab5-TestingDoc-Grading-Sheet.docx** and save it inside **Lab5 – OOP using JavaScript** folder. Sync your repository to push your work to GitHub.