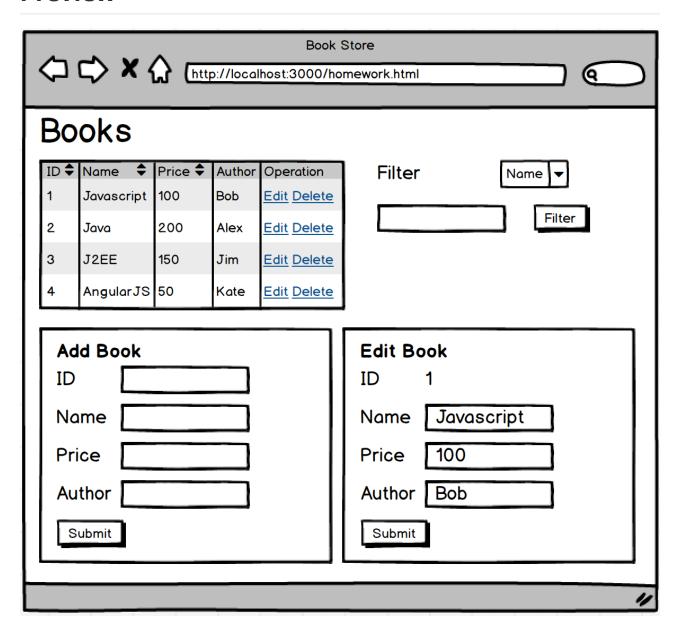
jQuery Homework

Preview



Environment

Create a "msi-training" folder under your Training folder.

Create "homework/jquery" folders under msi-training folder.

```
cd Training/msi-training/homework/jquery
npm init -y
npm i express body-parser --save
mkdir public
```

Create a homework.html file in public folder and import CDN jQuery and Bootstrap.

```
<script src="https://code.jquery.com/jquery-3.3.1.min.js"></script>
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script><
```

Backend

Use nodejs + expressjs and other modules to build RESTFul web services.

Please create a books array based on the data shown in preview.

Require APIs

```
GET /books

GET /books/1

POST /books

DELETE /books/1

PUT /books/1
```

Frontend

Books Table

- Display all books table using backend data
- Display in nice format
- Implmenet sorting by ID, Name and Price
- Implement delete a book.(both in table and backend)
- Click on Edit will load current book in Edit Book Form(see Edit Book part)
- Links
 - https://www.w3schools.com/bootstrap/bootstrap_tables.asp
 - https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Arra y/sort

Filter

• Create a select box to display filter options: Name, Author, Min Price, Max Price

- Create a input box for filter value
- Create a button to trigger filter. Table will be changed after filtering.
- Links
 - https://www.w3schools.com/tags/tag_select.asp
 - https://www.w3schools.com/jsref/event_onchange.asp
 - http://api.jquery.com/val/
 - https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array/filter

Add Book

- Create a form as described to collect user's input for a new book.
- Create a submit button to send book to backend for save.
- Links
 - https://www.w3schools.com/html/html_forms.asp
 - https://www.w3schools.com/bootstrap/bootstrap_forms.asp
 - https://api.jquery.com/submit/

Edit Book

- Click on Edit in Books table will load the book in the edit book form.
- Create a submit button to send book to backend for update.
- Links
 - http://api.jquery.com/text/

Bonus

- Implmenet frontend form validation to avoid invalid input. e.g. empty name/author, negative id/price.
 - https://www.w3schools.com/js/js_validation.asp
- Implment Nodejs side validation. Invalid data should not be saved. e.g. non-existing id for edit, duplidated id for add, invalid name and etc.
 - return and display an error message for any invalid cases
 - Use one middleware for book object validation on any request to /books, /books/* APIs
 - o please do not use any library for validation

Any questions please ask on Slack. Happy Coding...

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