



# jQuery Homework

## Preview

Book Store



### Books

ID	Name	Price	Author	Operation
1	Javascript	100	Bob	<a href="#">Edit</a> <a href="#">Delete</a>
2	Java	200	Alex	<a href="#">Edit</a> <a href="#">Delete</a>
3	J2EE	150	Jim	<a href="#">Edit</a> <a href="#">Delete</a>
4	AngularJS	50	Kate	<a href="#">Edit</a> <a href="#">Delete</a>

Filter

Name

Filter

#### Add Book

ID

Name

Price

Author

Submit

#### Edit Book

ID

1

Name

Price

Author

Submit

## 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">
```

## Backend

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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

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### Books Table

- Display all books table using backend data
- Display in nice format
- Implement 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://www.w3schools.com/bootstrap/bootstrap_tables.asp)
  - [https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\\_Objects/Array/sort](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array/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/tags/tag_select.asp)
  - [https://www.w3schools.com/jsref/event\\_onchange.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](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/html/html_forms.asp)
  - [https://www.w3schools.com/bootstrap/bootstrap\\_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

- Implement frontend form validation to avoid invalid input. e.g. empty name/author, negative id/price.
  - [https://www.w3schools.com/js/js\\_validation.asp](https://www.w3schools.com/js/js_validation.asp)
- Implement Nodejs side validation. Invalid data should not be saved. e.g. non-existing id for edit, duplicated 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
  - please do not use any library for validation

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

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