

FidZulu Project

Story

Fidelity wants to develop a competitive service to Amazon.com. For this purpose a SPA web application had to be developed utilizing node and Angular only.

Scope

The scope for the FidZulu project is to develop a web application which provide similar functionality as Amazon.com. For the first phase 6 RESTful services, utilizing node.js and express, will be developed, each responsible for a certain data type.

Additionally, two restful services will be developed which manage each 3 of the services and provide a all through API for all the underlying functionality.

For the front end an Angular application will be developed accessing the two RESTful services to receive all the requested data

Task for backend services

Backend service will have to manage following data sets:

- Bikes
- Books
- DVDs
- Food
- Laptops
- Toys

Each service must provide at least two routes:

- */servicename/all/<location>* with *servicename* replaced with one of the above name, and return all the items and
 - *<location>* to accept Raleigh and Durham which results in a price calculation adding sales taxes of 7.5% for Raleigh and 8% for Durham, respectively, before returning values.
 - an HTTP GET
- */servicename/team* returns a json object with team name and all team members names
 - an HTTP GET
 - Structure: { "team": "string", "membersNames":["string"] }
- Optional */servicename/add*
 - an HTTP POST

Task for mid-tier services

These two services have only one job: to provide access to the backend services and transport through the receiving and posting data

The interfaces for those two services (classA and classB) are:

- `/classA/servicename/all/<location>` Retrieving the appropriate data from service `/servicename/`
- `/classA/servicename/team ...` retrieving all appropriate team information

classA covers: (..... use port 3021)

- Bike use port 3031
- Food use port 3032
- Toys use port 3033

classB covers: (..... use port 3022)

- Books use port 3034
- DVDs use port 3035
- Laptops use port 3036

In order to make requests to other RESTful services choose a library from following choices:

<https://www.twilio.com/blog/2017/08/http-requests-in-node-js.html>

Library “Got” might be a sufficient library for this scenario

Task for frontend development

Develop angular application which allows to select each type of data set and display it together with the appropriate team information. Use HTTPClient to access all data via the two mid-tier services.

Design decisions are made by the alpha angular team

Appendix

