FIDZULU PROJECT

BACKGROUND

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

SCOPE

The scope of the FidZulu project is to develop a web application that provides similar functionality to Amazon.com. For the first phase, six RESTful services utilizing Node.js and Express will be developed, each responsible for a certain data type.

Additionally, the mid-tier will have two RESTful services that will be developed. Each service will manage three of the backend services, providing a pass-through API for all the underlying functionalities.

For the frontend, 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 the following data sets stored in Oracle DB tables:
    - Bikes
    - Books
    - DVDs
    - Food
    - Laptops
    - Toys
- Each service must provide at least two routes:
    - /*servicename*/`all`/*location*
        - *servicename* – `bikes,` `books,` `dvds,` `food,` `laptops,` or `toys.` The response for each request will include all the items of that type. Each of the six services will listen for requests on a different port. Port numbers are listed below in the *Task for Mid-Tier Services* section.

- *location* to accept US-NC (for North Carolina), IE (for Ireland), or IN (for India), which results in a price calculation converting the prices in the JSON files (which are in USD) into the appropriate currency and applying sales tax, which is 8% for US-NC, 23% for IE, and 18% for India.
      - An HTTP GET
  - */servicename*/team returns a JSON object with the team name and all team member names.
      - An HTTP GET
      - Response structure:
        ```
        {
            "team": "string",
            "membersNames": ["string", "string", …]
        }
        ```
  - Optional */servicename*/????
      - An HTTP POST
      - An HTTP PUT or PATCH
      - An HTTP DELETE
  - Optional: Research sales tax rules in each region and apply different rates to different products according to those rules.

TASK FOR MID-TIER SERVICES

- These two services have only one job: to provide access to the backend services and pass through the requests and responses.
- The endpoints for these two services (classA and classB) are:
  - /classA/*servicename*/all/*location* – retrieves the appropriate data from service /*servicename*
  - /classA/*servicename*/team – retrieves all appropriate team information.
- classA (port 3021) includes:
  - Bike – port 3031
  - Food – port 3032
  - Toys – port 3033
- classB (port 3022) includes:
  - Books – port 3034
  - DVDs – port 3035
  - Laptops – port 3036
- To make requests to other RESTful services, use the Axios library.

TASK FOR FRONTEND DEVELOPMENT

- Develop an Angular application that allows users 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.
- Create an About page that displays the combined team information from each service.
- Design decisions are made by the Angular team.

TASKS FOR ALL

- Agree on priority order of work.
- Confirm interfaces with "adjacent" teams.
- Deliver agreed deliverables.

APPENDIX