1. Food2Fitness:

A fit and healthy body is going a long way, which can be accomplished by following a proper diet and workout plan. However, the lack of appropriate instructions and knowledge can weaken the motivation of the individual and can impede the achievement of the objective of the consumer. Our "Food2Fitness" app will provide all the details on food and fitness required for the individual to achieve their fitness goal.[2]

The application offers a detailed guide to wellness routines with high-quality exercise videos and features a broad variety of nutritional recipes that can be conveniently cooked at home.[2]

2. Target User Insight:

Food2Fitness has wide variety of users and are categorized as below:

Chef – skilled and qualified cooks who would like to use this website to share their special recipes for the community.

Travelers-A tourist who needs to enjoy the flavour of local food in the areas where they stay. Visit is a future user of the programme. At that place, they can search for trendy recipes. And know how to make them.

Students-For teenage and college students we will use our app to browse for recipes, cook meals, and check for fitness videos to keep active and safe. The app would be beneficial for students and teenagers searching for nutritious food tips, and they would also be able to add to it by adding some new recipes and blogs about it.[2]

Common Users-General audiences who wish to cook their home food on a daily basis may post or Find new recipes.[2]

Title page removed by Instructor

Grade 100 / 100

Grade Breakdown
Formal Writing - 10/10
References - 20/20
Grammar - 10/10
Content - 40/40
Completeness - 10/10
Clarity - 10/10

Feedback -
1. Good job on the assignment !

3. User-Centered Design:

- **Gym Locator:**

Below image shows the front end UI of the Gym Locator web page where users can view the list of nearby GymLocations and users can view locations in maps.Also, Users can check the details of club details and more information about the club by clicking on view club. Another important feature of Gym Locator is users can register their newly opened Fitness club and Gym so that users can view the location.[3]

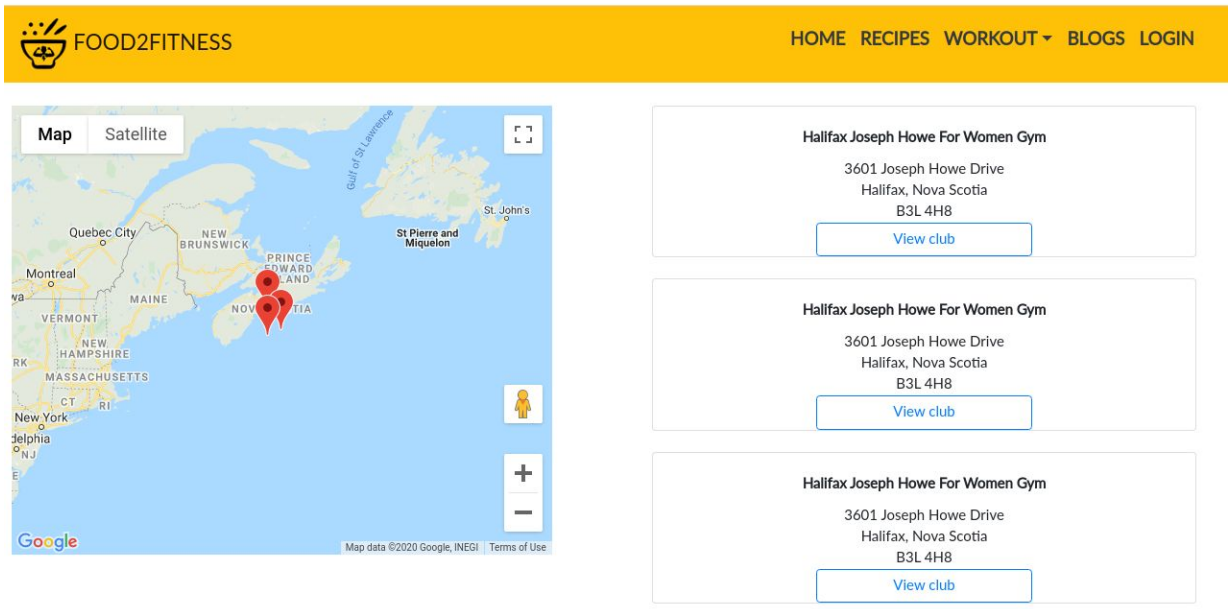

Fig 1: Gym Locator Web page

- **News:**

Below image shows the low fidelity prototype of News Feature where users can view trending news related to health and fitness. Also users can filter out the news by selecting list categories in advanced search which makes it easy for users to read articles by opening them. After opening the article if the user likes the article he can continue by clicking on read more or else users can search for other articles by opening it.[6]

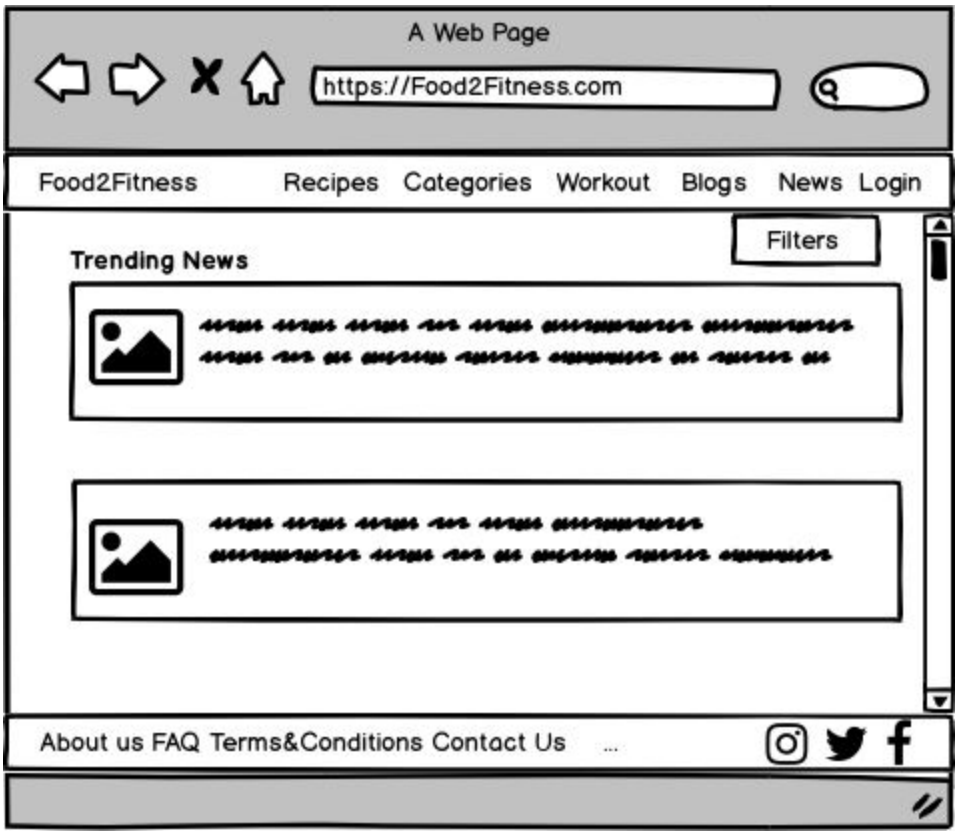

Fig 2: News Page Wireframe

4. Application Architecture:

Below figure represents the architecture of Food2Fitness application, where application is going to be developed by following model view controller design patterns. Model contains the structure of the application's data that is going to be stored. All the business logic is going to be maintained in the controller part. View is the front end layer or presentation layer of the application where the user interacts with the application.

React framework,CSS and bootstrap are used for developing the front end of the application.It offers faster performance compared to other frameworks.

Whereas for backend development we are going to use NodeJS and ExpressJS framework. It is used for establishing connection with databases and MongoDB is chosen for storing application data as data is stored in JSON format that makes it easy for faster interaction and fetching data from database.

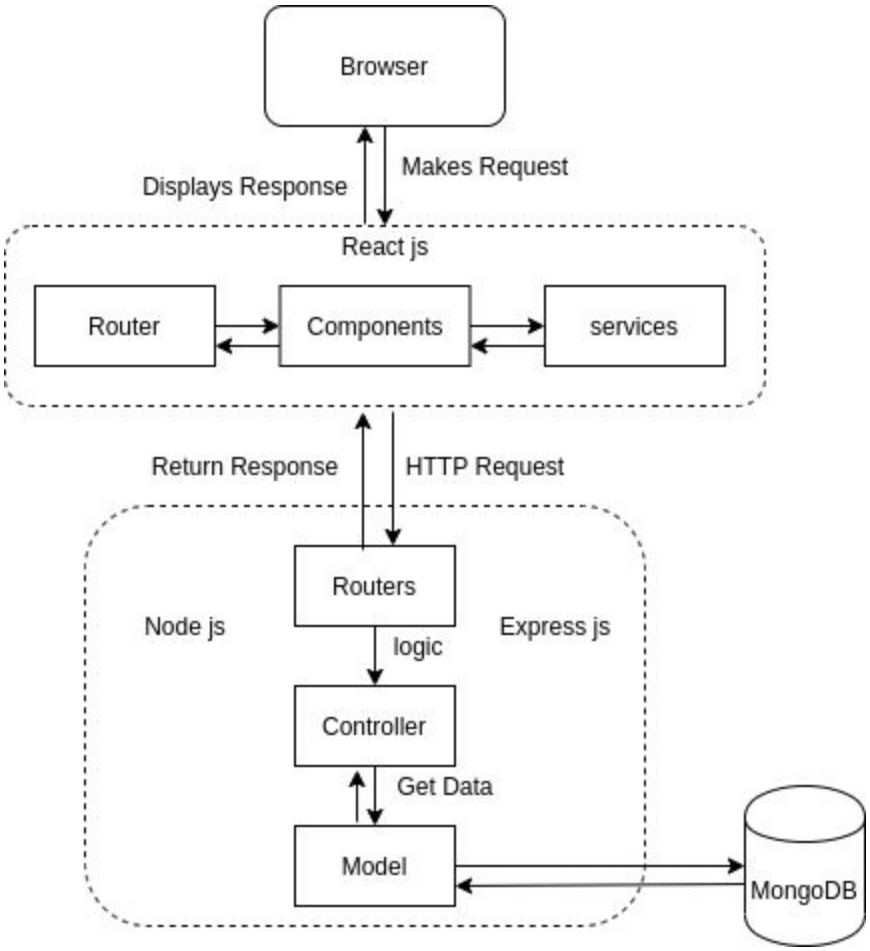

Fig 3: Application Architecture

5. Interaction Design:

Below are the list of features that are being developed by me as part of Food2Fitness application:

1. Gym Locator
2. News Feature

- **Gym Locator Feature:**

Below figures shows the task flow and click streams of GymLocator Feature of Food2Fitness application.The process flow starts when user navigates to home page and clicks on workout link. In the workout list,User can find out the Gym Locator and can view the list of locations.[1]

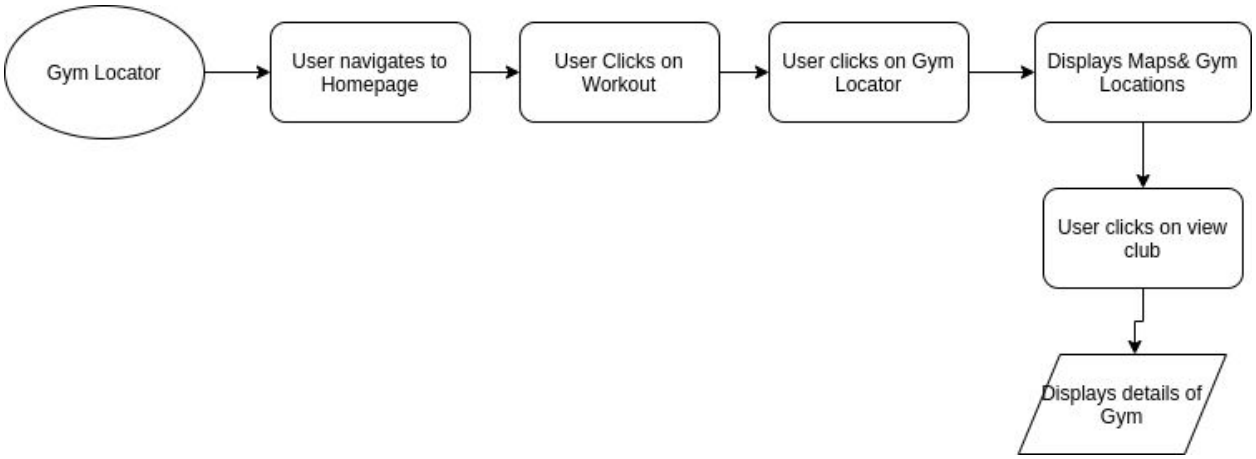

Fig 4: Gym Locator Task flow

Below figure shows the click stream of GymLocator where user can find Gym Locator in Food2Fitness application.[1]

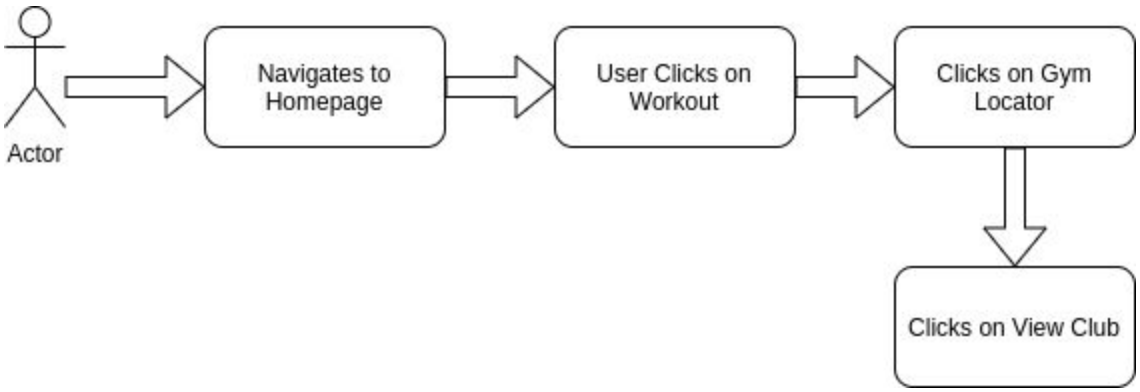

Fig 5: Gym Locator Click Stream

- **News Feature:**

Below figures shows the task flow and click streams of News Feature of Food2Fitness application.The process flow starts when user navigates to home page and clicks on News on Header. When the user clicks on the News in Header section it redirects to the News page where the user can view all the news related to food and fitness. Also users can filter out the news by selecting in filters tag.[1]

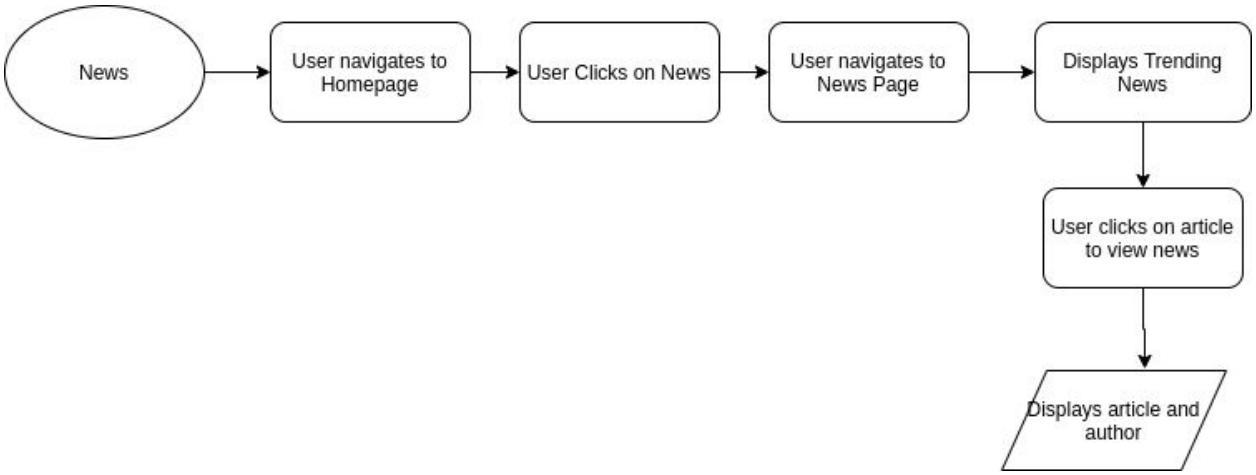

Fig 6: News Feature task flow

Below figure shows the click streams of News feature[1]

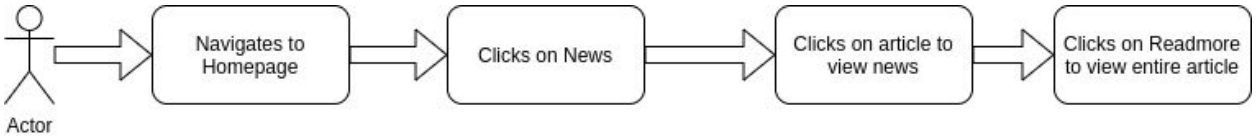

Fig 7: News Feature Click Streams

6. Process Workflow:

The below figures show how the workflow happens for the Food2Fitness application. When user requests from browser and how browser interacts with react components and calls Rest services and Nodejs application. NodeJs application calls the MongoDB database to process or handle the corresponding request and stores data in MongoDB database.

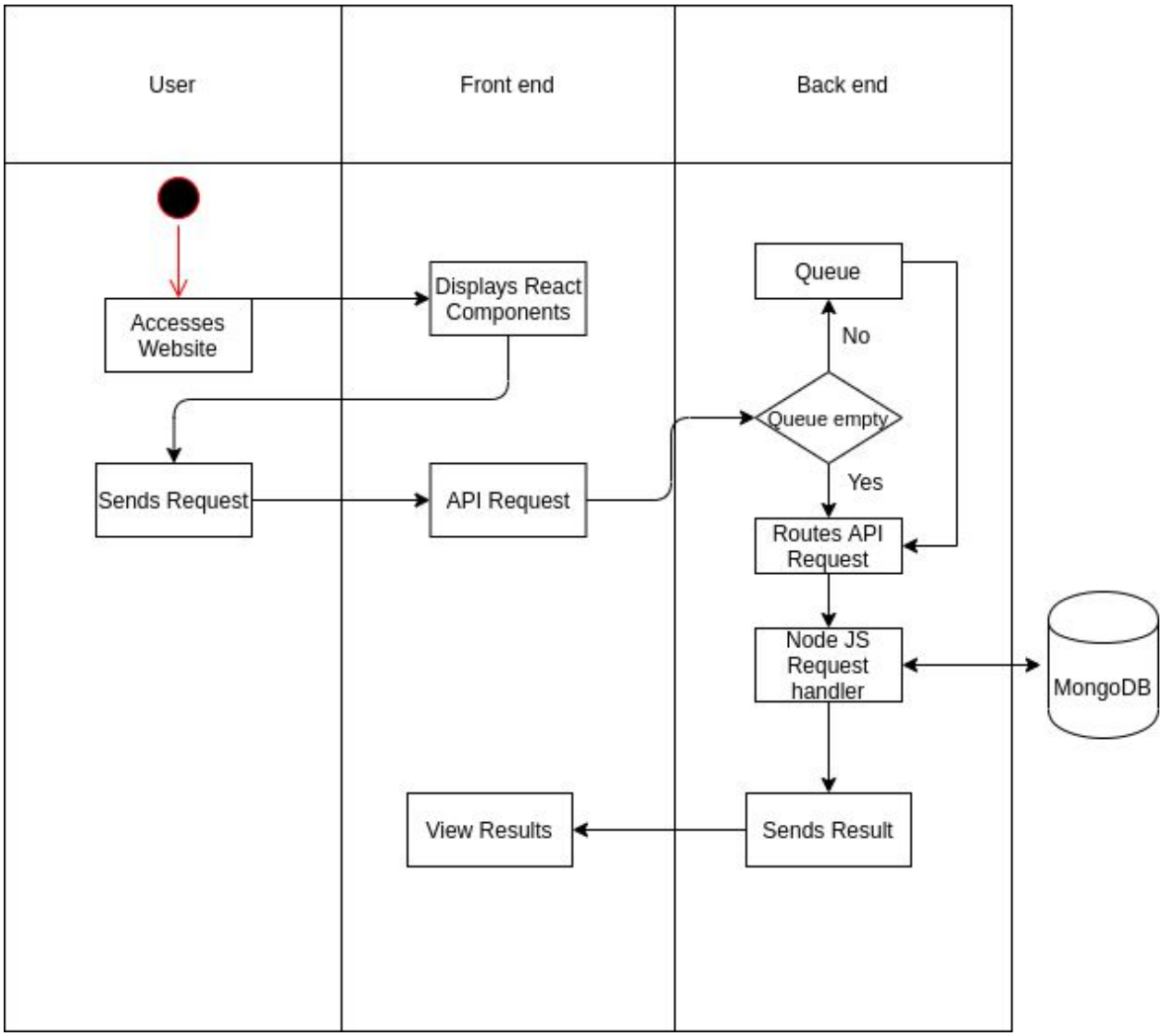

Fig 8: Process Workflow

7. Folder Structure:

The application is going to be developed by using NodeJS, and Express framework for developing APIs as backend and ReactJs for front-end development and User Interface. Folder structure has been divided based on Front-end and back-end.

As shown in below figure, folder structure of react project comprises of src folder,package.json and procfile.Src folder contains all the react components,css and assets files related to front end project.Package.json file contains all the information related to packages and build process of react project.Procfile contains scripts to build and run application in heroku as application is going to be deployed in heroku.

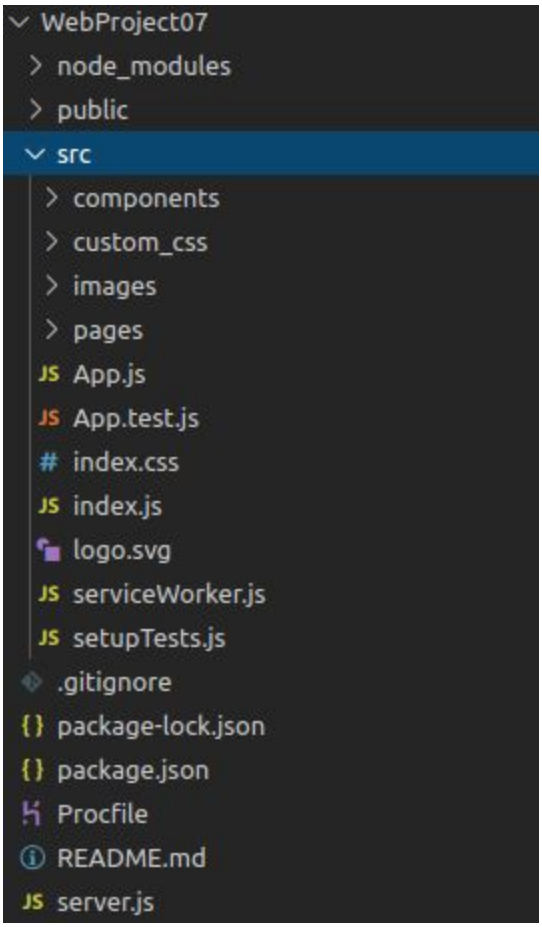

Fig 9: React Folder Structure

Below figure shows the folder structure of Application's NodeJS project.Node Js project structure comprises api folder,package.json and server.js file.Api folder contains routes,controllers,models. Routes folder contains all the route urls of the APIs whereas the model contains the object models of application present in MongoDB. App.js file contains the information of port and imported packages that are required as part of the project.Package.json file contains all the information related to packages and build process of node project.

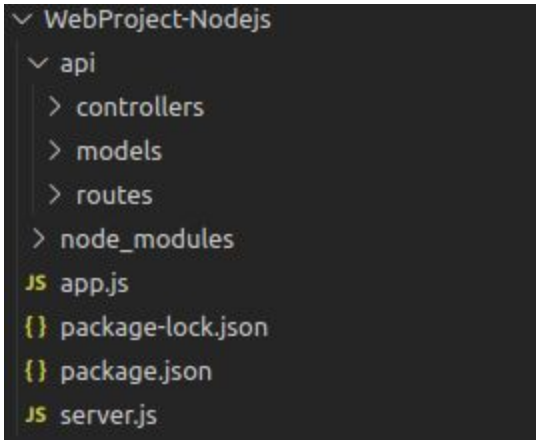

Fig 10 : NodeJs Folder Structure

8. References:

[1] Sai Pavan Akuralapu, "CSCI 5709 ASSIGNMENT 1." Dalhousie University, [online document], 2020.[Accessed 5-Jul-2020]
[2] A. Sai Pavan, N. Praneeth, Punarva Vyas, D. Dhruv,Anisha Shah,Tanu Gulia "Project Proposal." Dalhousie University, [online document], 2020. [Accessed 5-Jul-2020]
[3] “Food2Fitness,” Cs.dal.ca, 2020. [Online]. Available: https://webproject07.herokuapp.com/. [Accessed: 5-Jul-2020]
[4] draw.io - free flowchart maker and diagrams online, “Flowchart Maker & Online Diagram Software,” Draw.io, 2020. [Online]. Available: https://www.draw.io/. [Accessed: 5-Jul-2020]
[5]Sai Pavan Akuralapu, “Food2Fitness” Visual Studio Code,[Tool], [Accessed 5-Jul-2020]
[6]"Balsamiq Cloud", Balsamiq.cloud, 2020. [Online]. Available: https://balsamiq.cloud/s3vq5xn/projects. [Accessed: 05- Jul- 2020].