# EXIT TEST

PRODUCT COMMUNITY WEBSITE

- ❖ This is a product community website where a customer can visit, register themselves, browse products, raise for review, post reviews.
- ❖ 2 applications are to be developed:
    1. Frontend Application
    2. Backend Application

Frontend Application:

- ❖ **Tech Stack:**
    1. Angular version 13.3.6.
    2. SASS**[Bonus Point]**
    3. Run "ng serve -o" on terminal to start the application on "http://localhost:4200/"
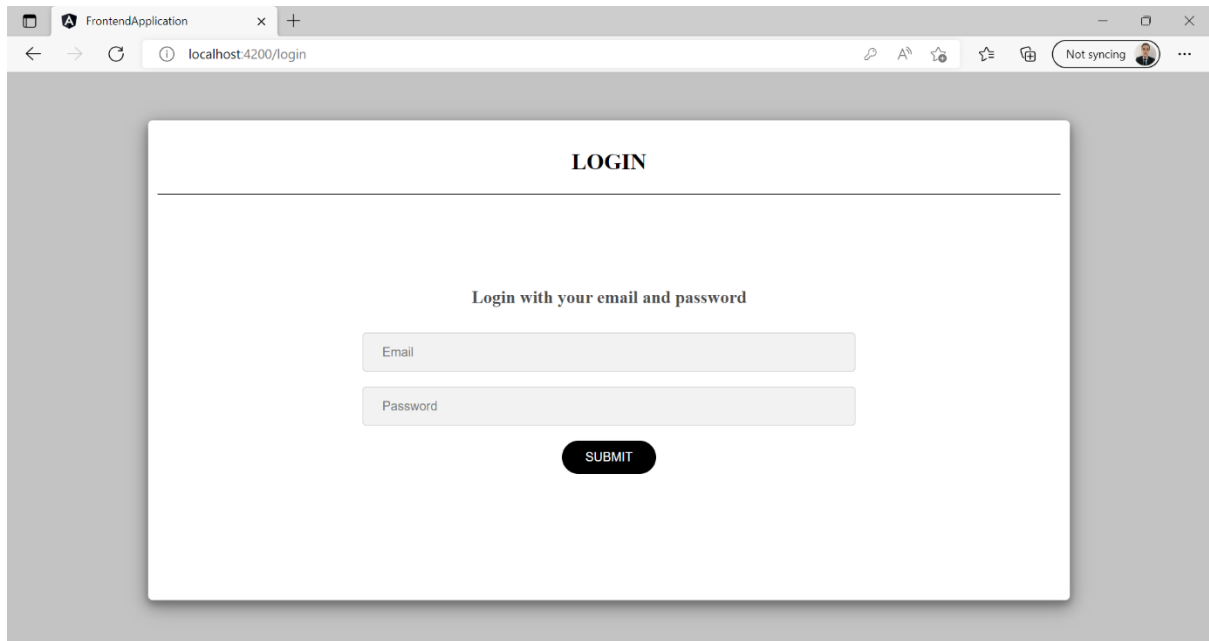
Home Page:

1. Home page has links for Registration and Login.
2. It shows stats such as number of registered users, number of products, number of reviews.
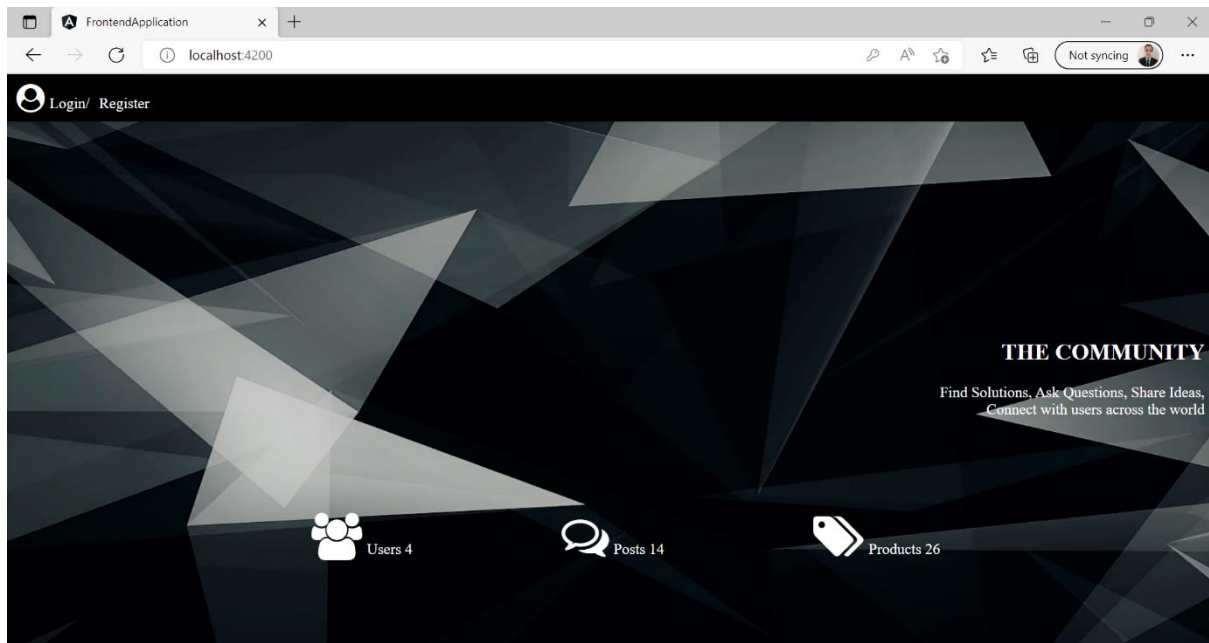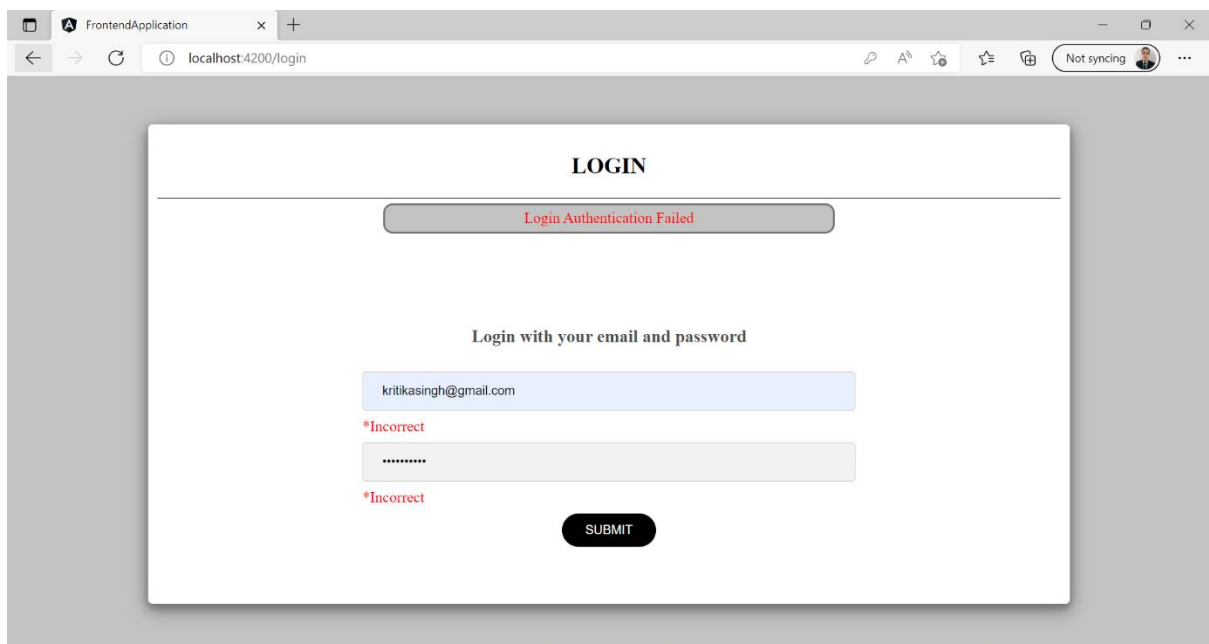
❖ **Login Page:**
1. The application has login page.

2. Proper error messages should be handled in case of invalid authentication.

3. If without login user try to use this application, then after alert message user will automatically redirect to login page.

4. This application is Guarded.
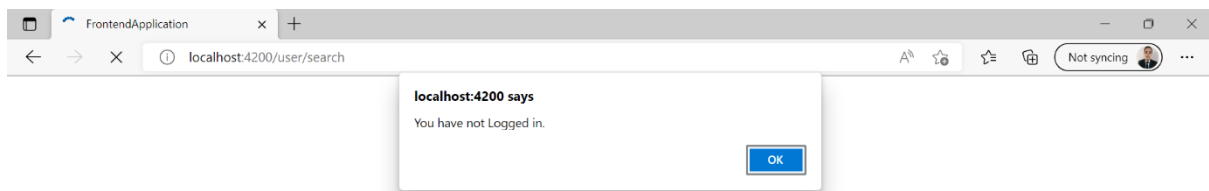
Logout:

1. User should be provided with an option to logout.
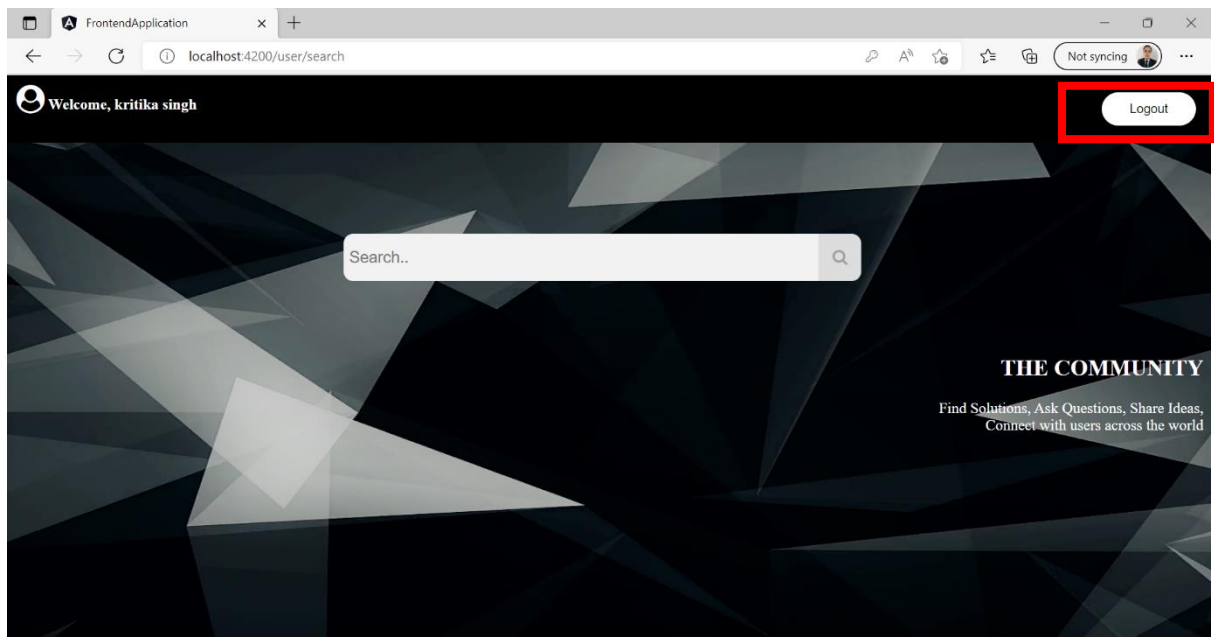
Registration Page:

1. The application has a registration page.
2. User should be able to register.
3. Validation for email address, password policy (min length 8), mandatory fields such as name is performed.
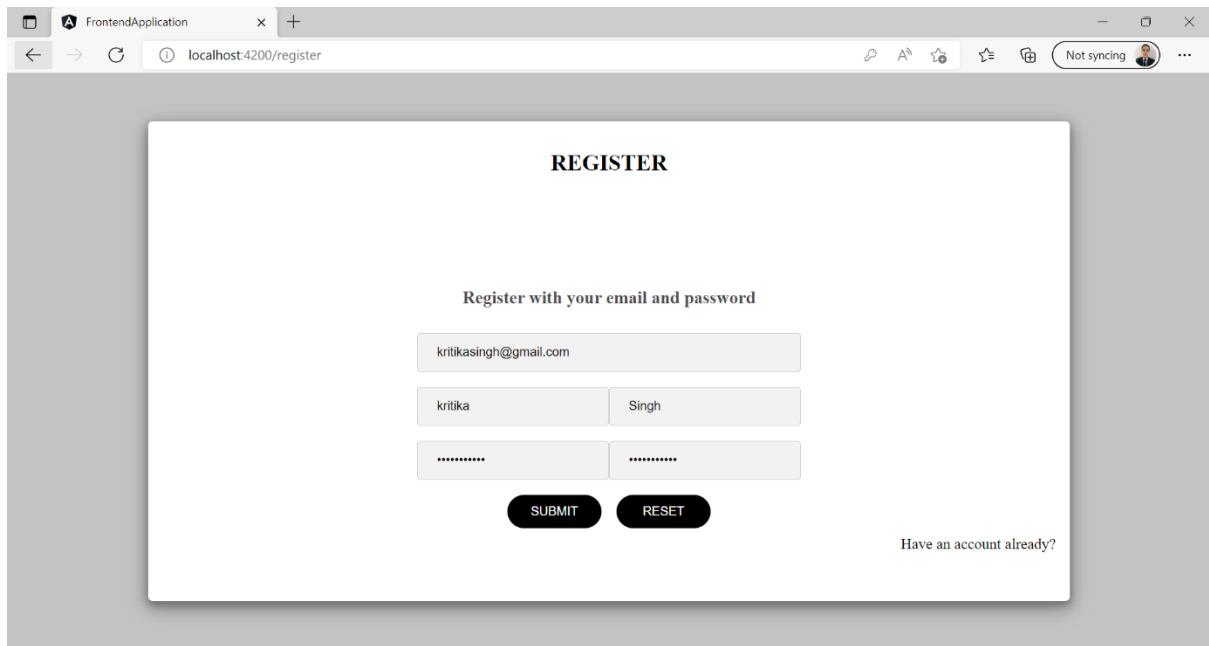
Product Search Page:

1. Search screen should search the input text against all input parameters specified in as name, code, brand.

Search by Brand:
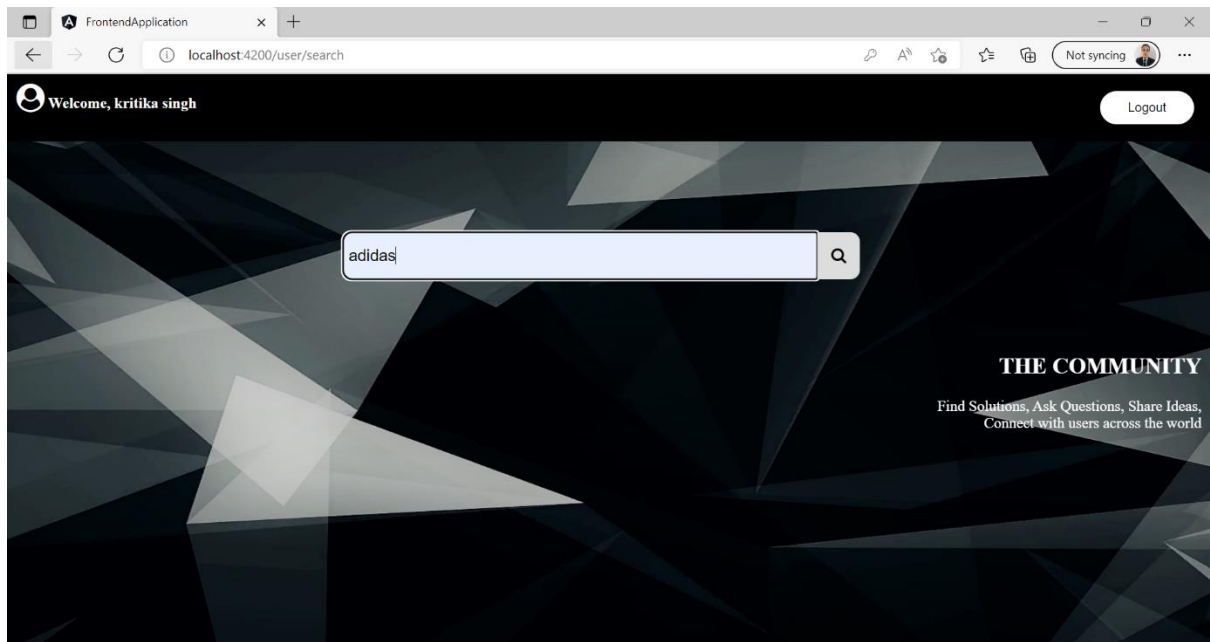
Search by Name:
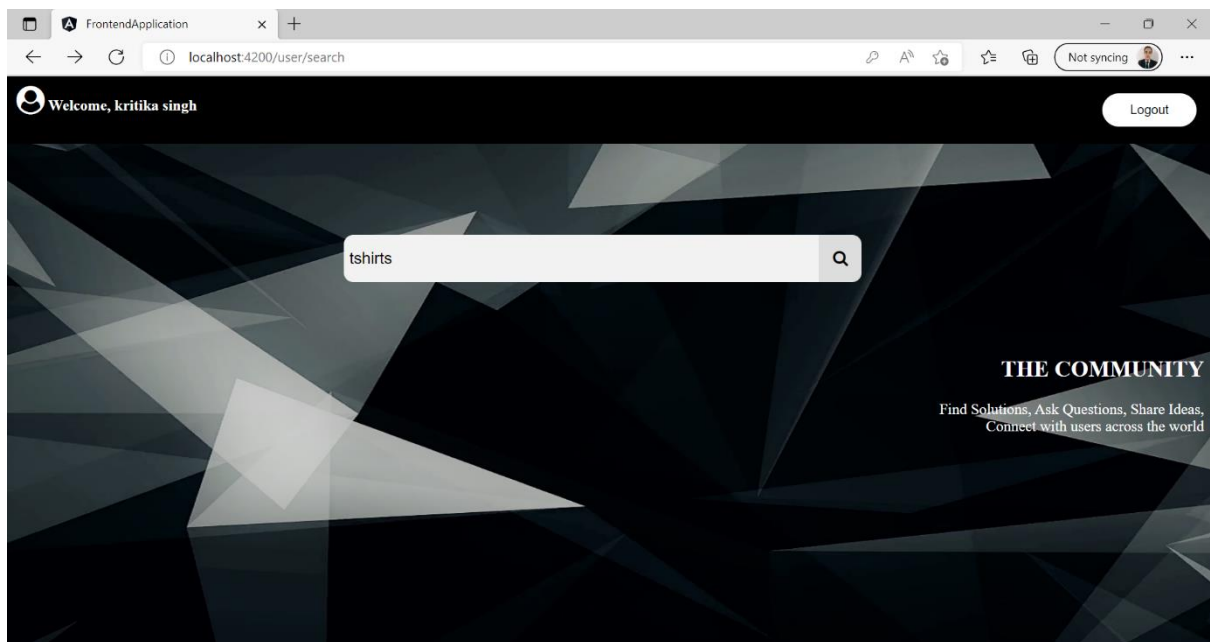
Search By Code:
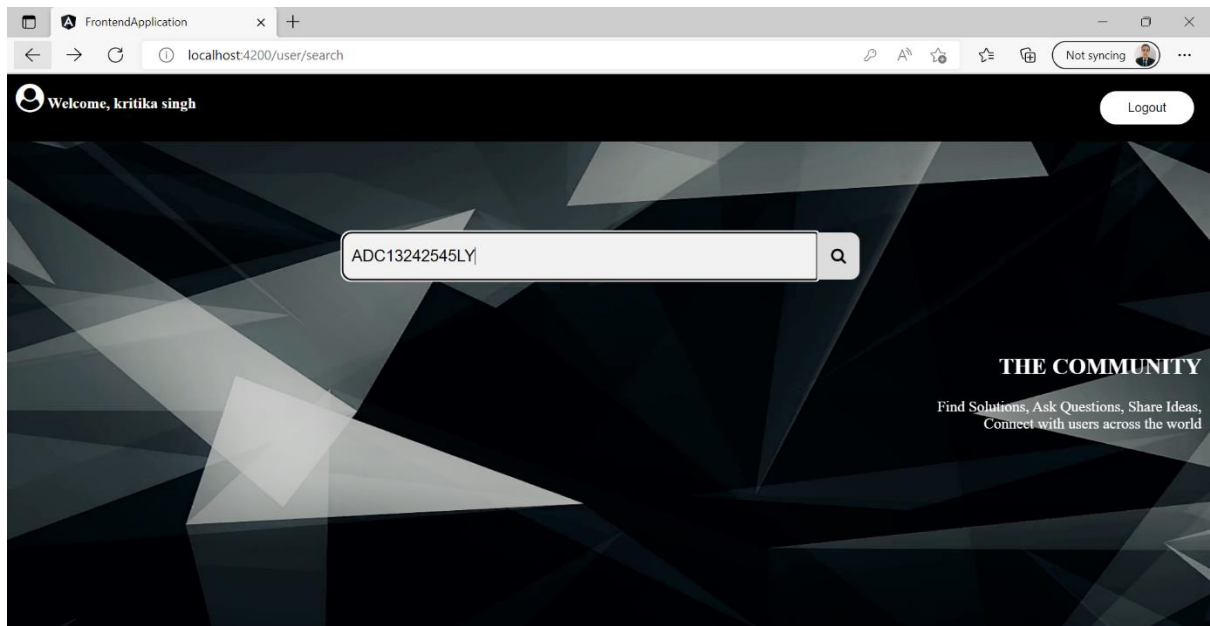
Search By all Parameters:
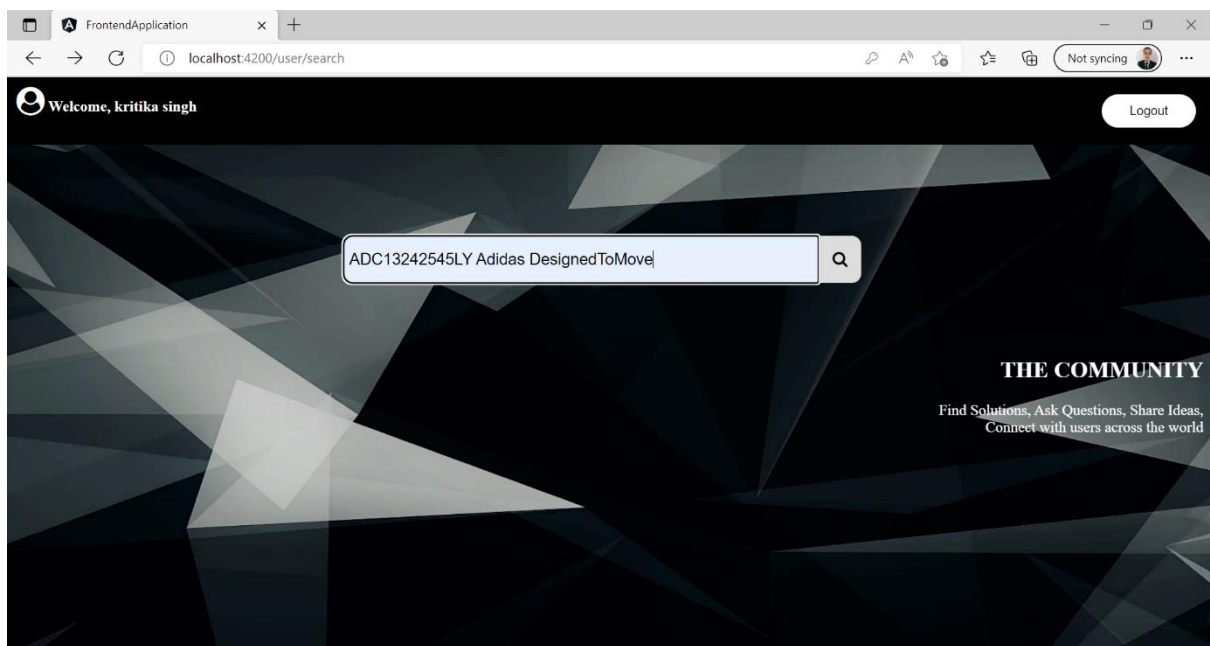
Results Page:

1. Once Search is triggered after specifying the search parameters, It will display the search results using the API from 1st Application.

*Search Result by Brand:

*Search Result By Name:

*Search Result by Code:
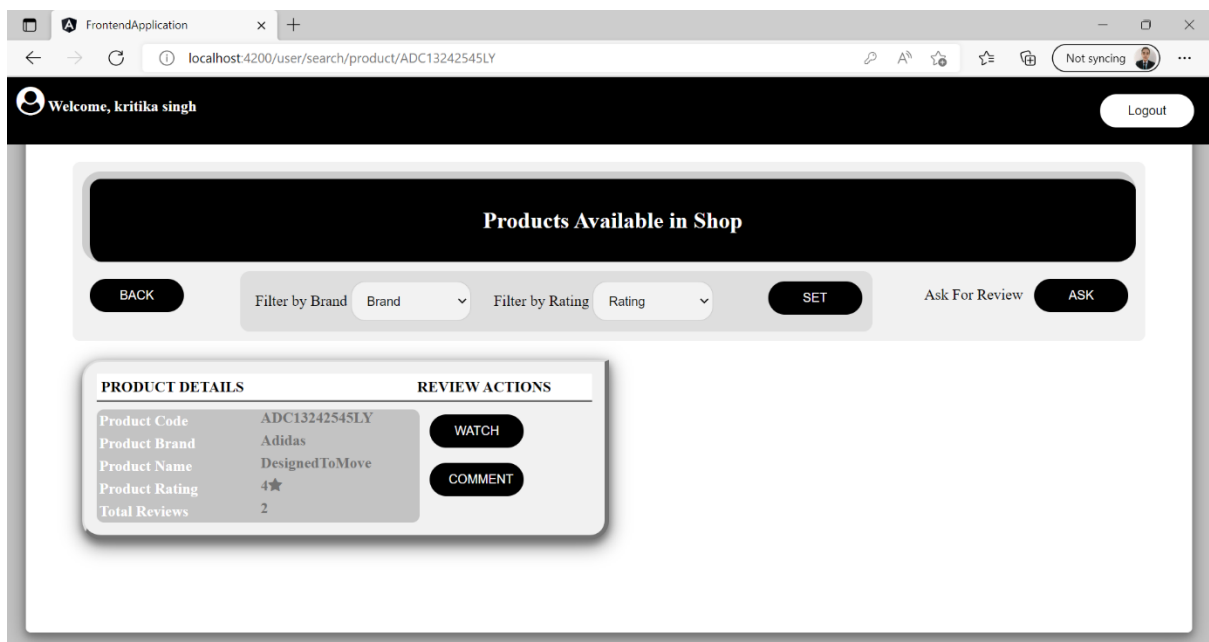
*Search Result By all Parameters:
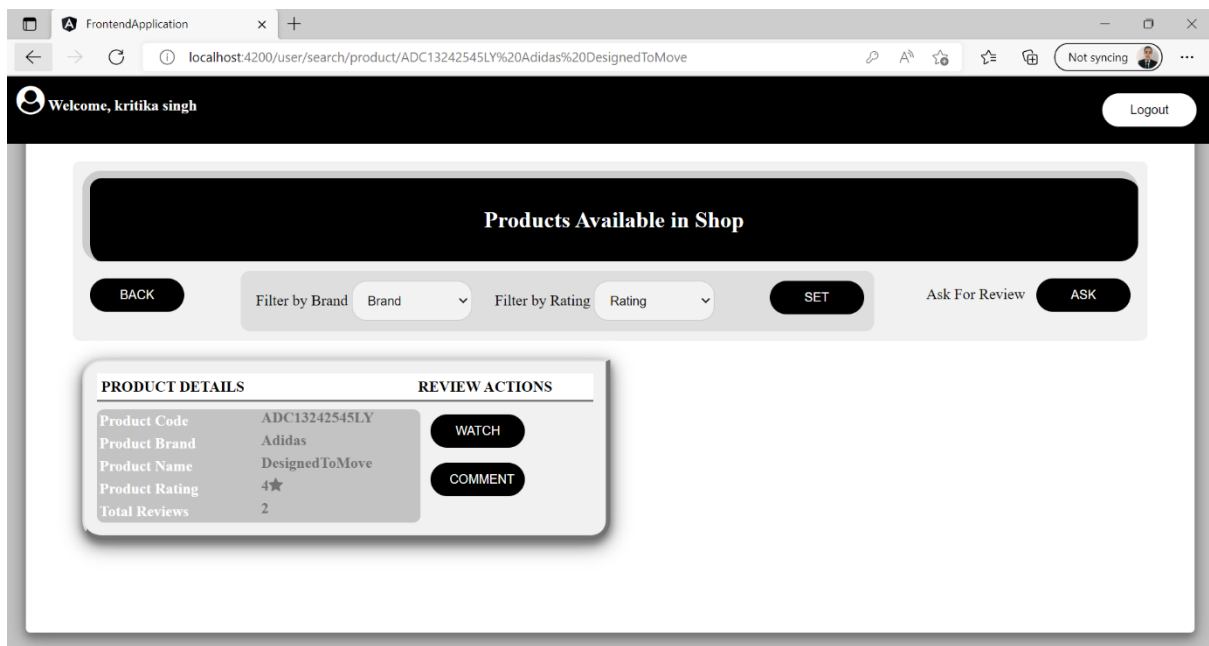
2. The user should be able to see the products and filter them further by code and brand. User should be able to see all products with average ratings, number of reviews etc.
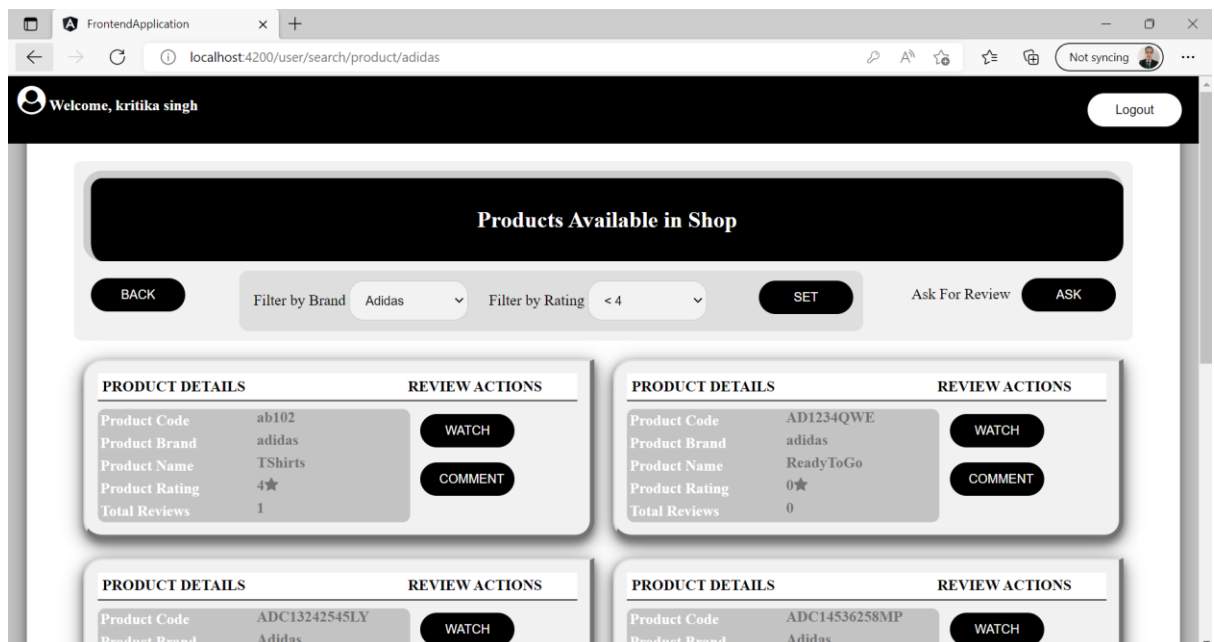
3. If no results are found, then error message displayed on screen.
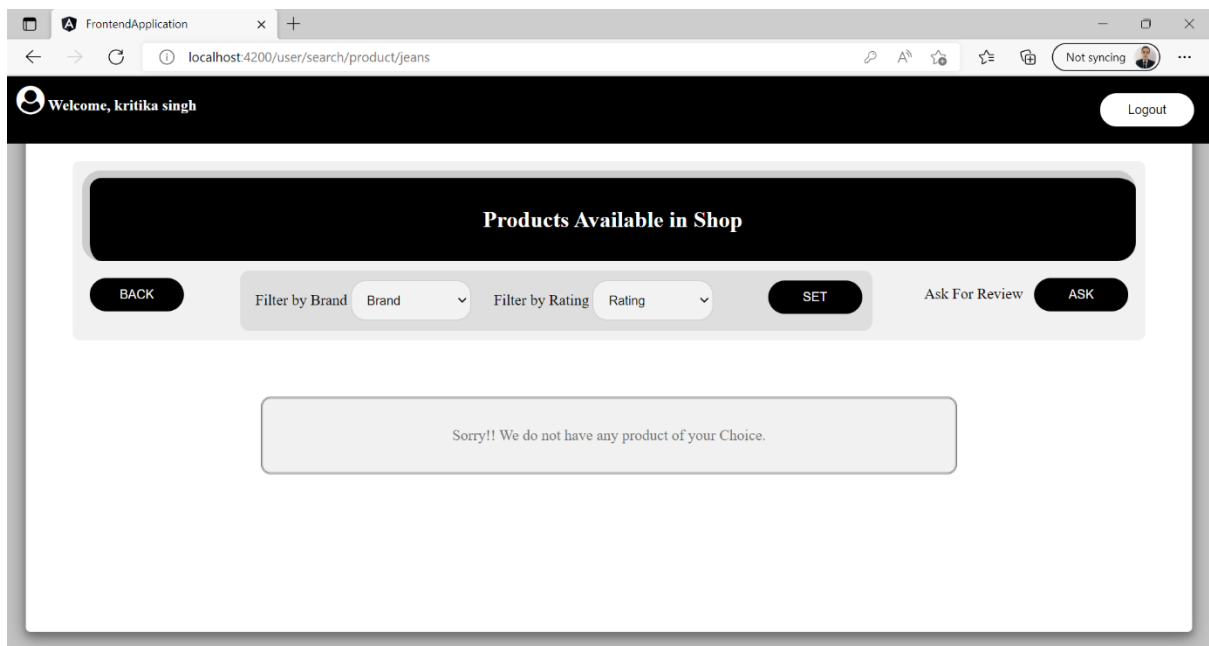
Product Details:

User can select a product and view all reviews provided for that product.
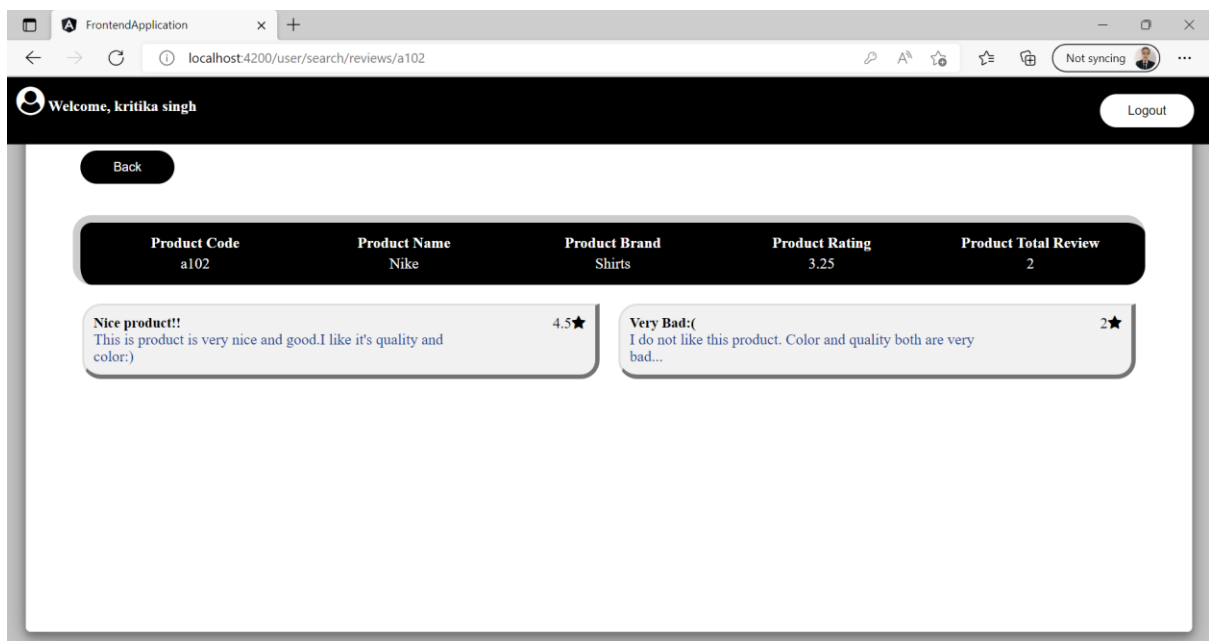
Post a review:

1. User can post a review to a product by submitting a simple form with fields such as:

       i.   Ratings (1-5),

     ii.   Heading

    iii.   Review (min. 20 characters and max 400 characters)

Ask For Reviews:

1. User can raise for reviews on a product by submitting a simple form with fields such as:

       i.   Product name

     ii.   code

    iii.   brand.
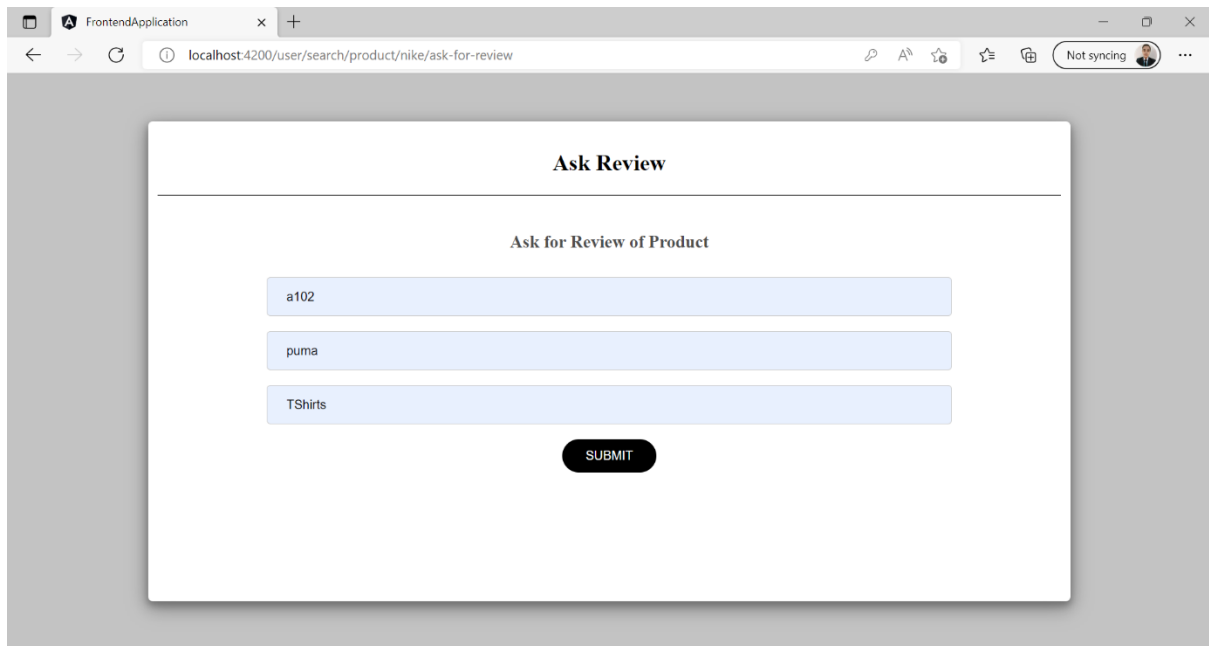
2. If a product code already exists in a system, it should provide an error message that the product already exists and should redirect to the product review page after 30 seconds.

When product is already available:

Ask Review

This product is already available..
You are automatically redirected to product review page after 30sec.

Ask for Review of Product

a102

puma

TShirts

SUBMIT

Logout

Back

Product Code	Product Name	Product Brand	Product Rating	Product Total Review
a102	Nike	Shirts	3.25	2

Nice product!!
This is product is very nice and good.I like it's quality and color:)   4.5★

Very Bad:(
I do not like this product. Color and quality both are very bad...   2★

*When Product not available:

Ask Review

Ask for Review of Product

ASD123QWE

Adidas

ReadyToGo

SUBMIT

Welcome, kritika singh

Logout

Ask Review

Sorry!!This product is not available..
Your request has been recorded for approval..

Ask for Review of Product

Product Code*

Product Brand*

Product Name

SUBMIT
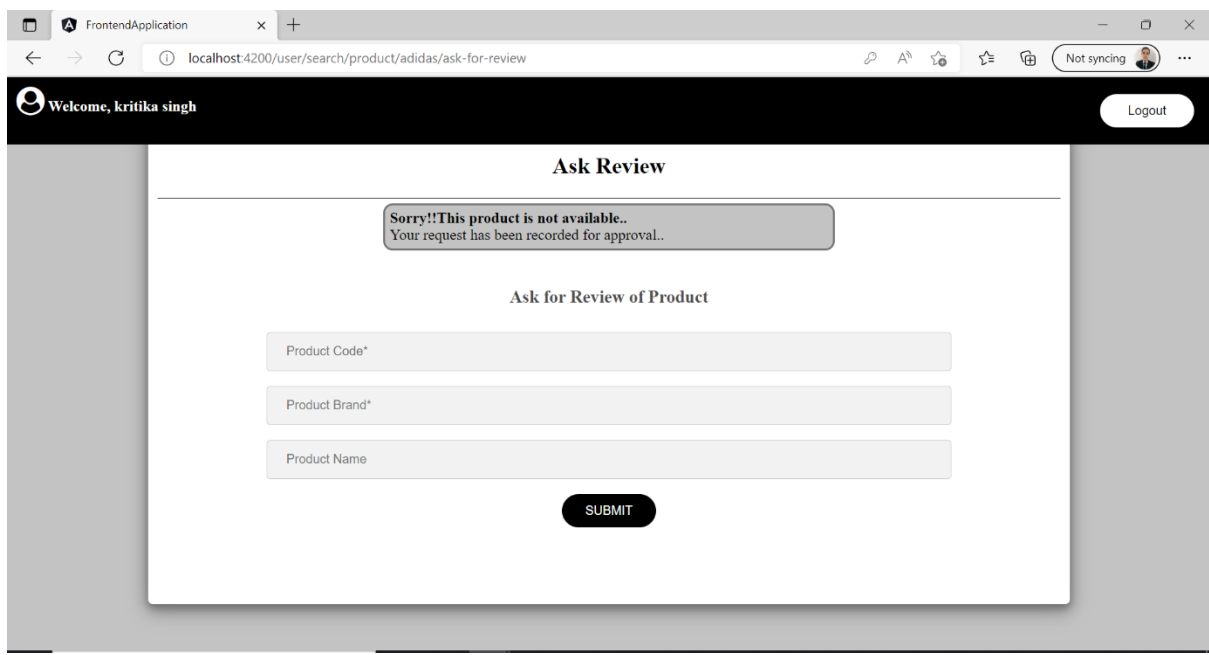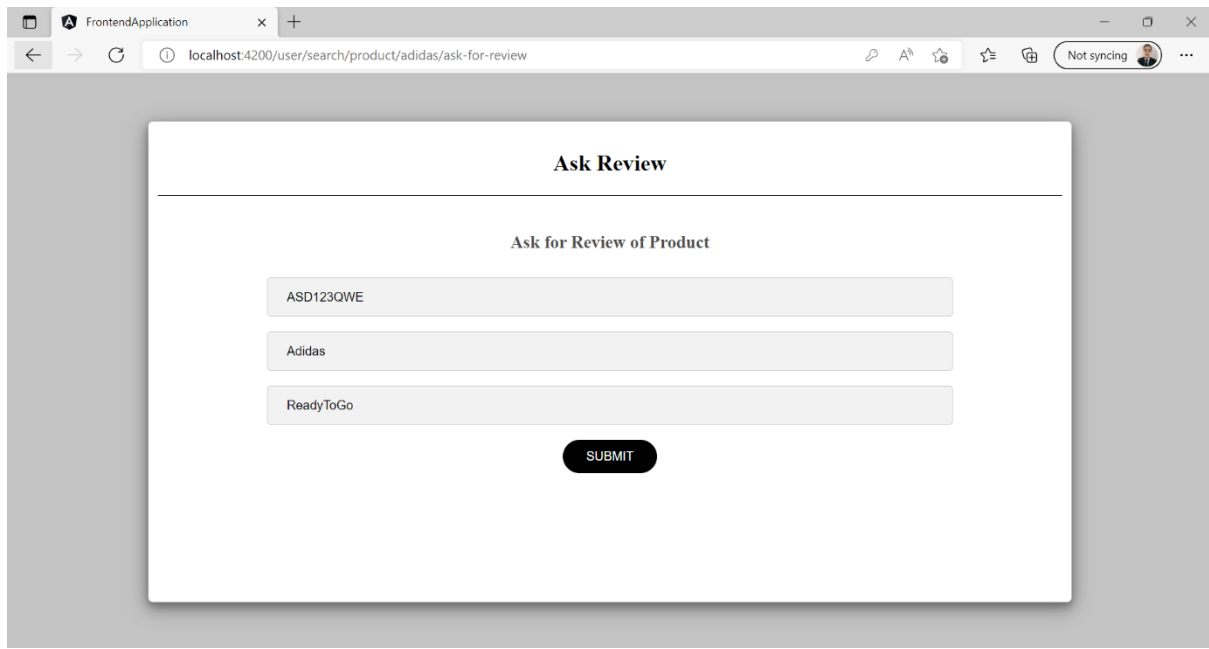
*When Product is available but not approved
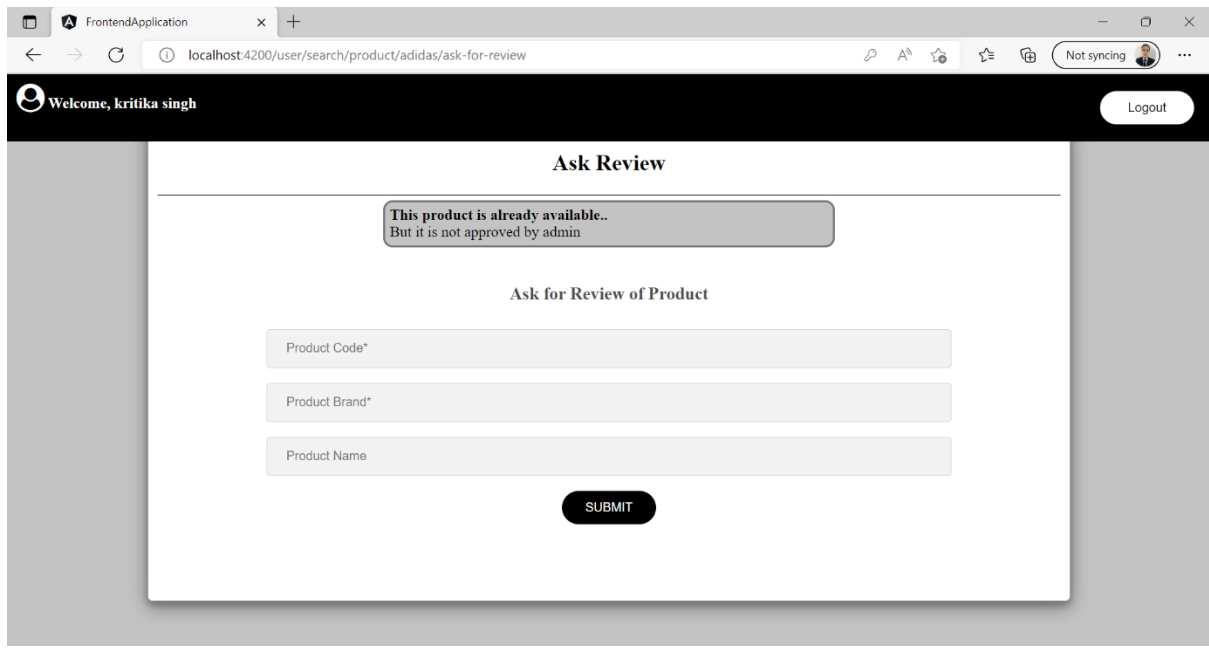
[BONUS] Admin

1. Admin can login with special email id- admin@gmail.com (assumption)
2. Only admin@gmail.com has admin right. No other user can use admin functionalities.
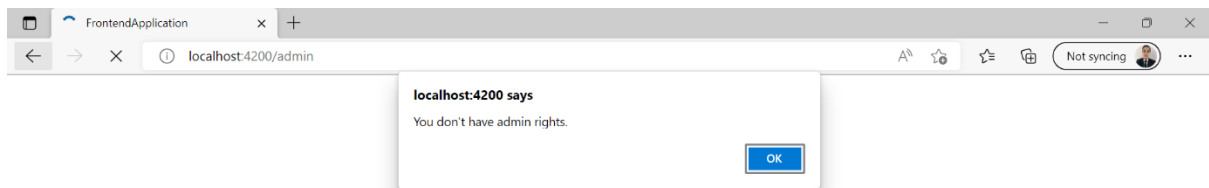
3. Logged in administrator can view all the new reviews and either approve or reject them.
4. Only approved reviews are then visible on storefront and average ratings are calculated from approved reviews only.

*Login Screen
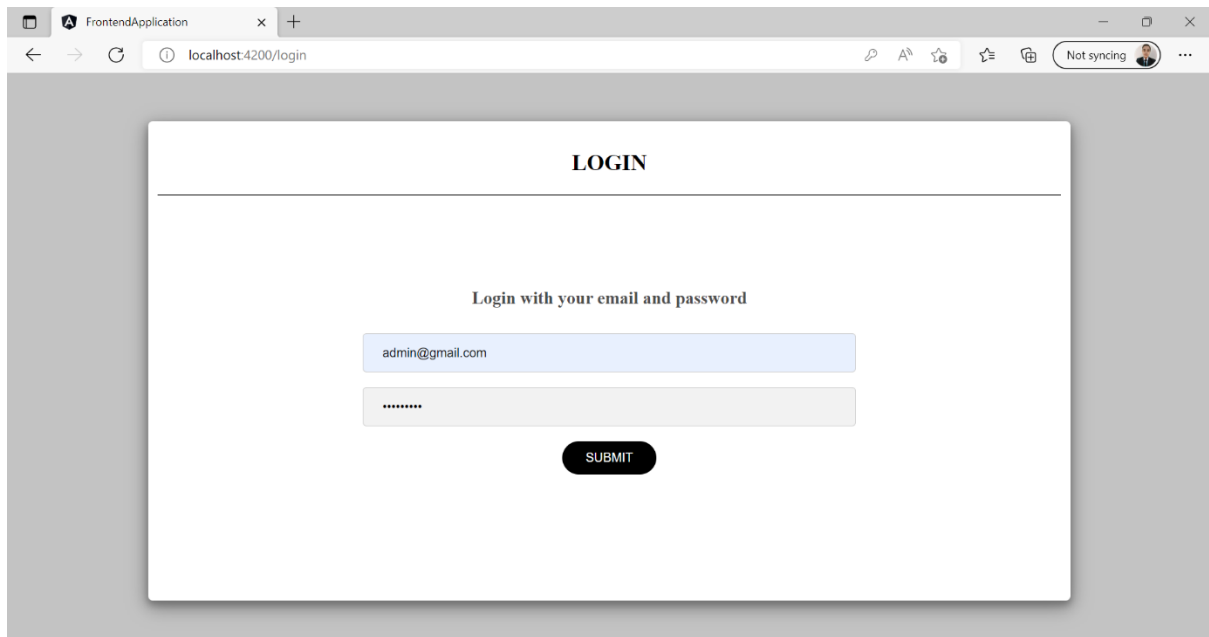
*After Successfully Login:
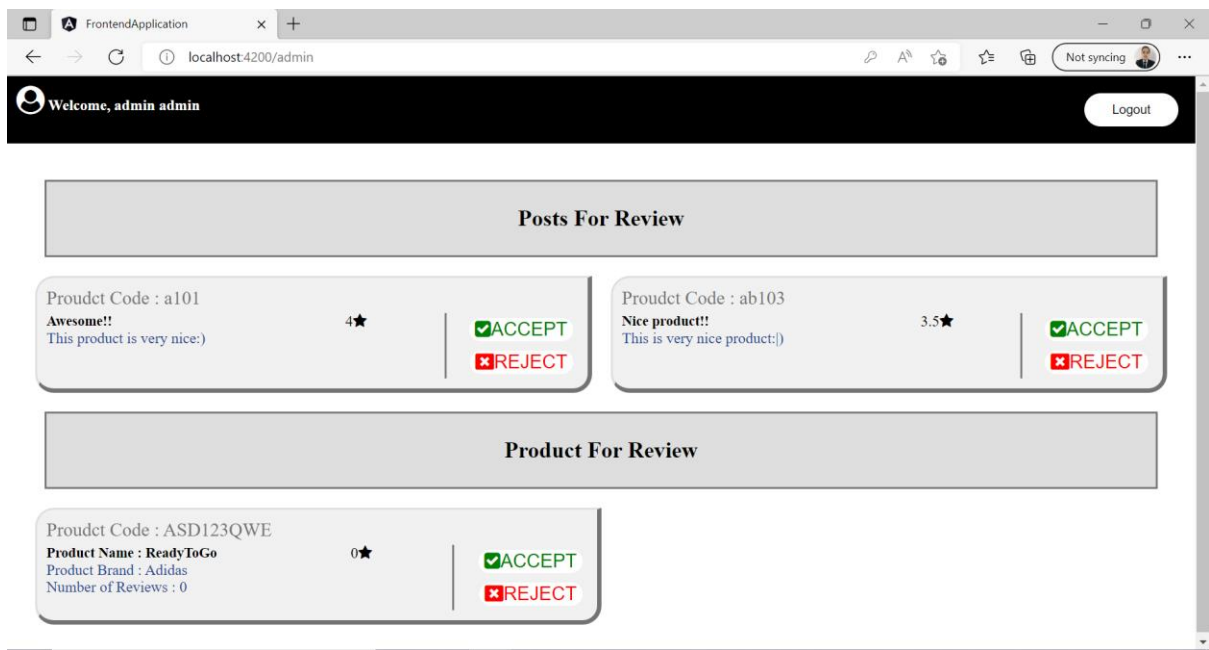
Backend Applications:

- ❖ This application is REST API no UI.
- ❖ This application is developed in Java with the help of spring boot.
- ❖ It works as backend that interact with database.

Application Structure

*Application Folder Structure:
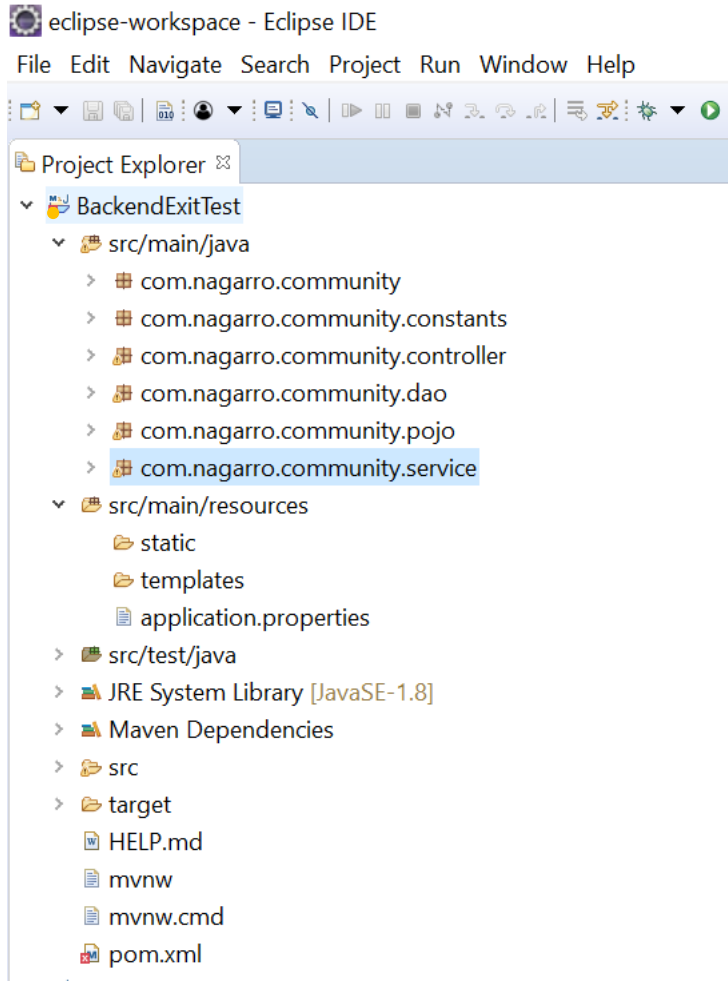
*Classes Inside Packages:

Project Explorer ✕

- BackendExitTest
  - src/main/java
    - com.nagarro.community
      - BackendExitTestApplication.java
    - com.nagarro.community.constants
      - Constants.java
    - com.nagarro.community.controller
      - AdminController.java
      - UserController.java
    - com.nagarro.community.dao
      - OtherDao.java
      - OtherDaoImpl.java
      - ProductDao.java
      - ReviewDao.java
      - UserDao.java
    - com.nagarro.community.pojo
      - Product.java
      - Review.java
      - User.java
    - com.nagarro.community.service
      - ProductService.java
      - ProductServiceImpl.java
      - ReviewService.java
      - ReviewServiceImpl.java
      - UserService.java
      - UserServiceImpl.java
  - src/main/resources
    - static
    - templates
    - application.properties

❖ Database:
  i.   Database use for this application is MySQL.
  ii. Database Name- community
  iii. There are three tables in Community Database-
       • Product
       • Review
       • User

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| community          |
| demo               |
| information_schema |
| library            |
| mysql              |
| performance_schema |
| products           |
| result             |
| sakila             |
| school             |
| shophib            |
| spring_shop_hib    |
| sys                |
| world              |
+--------------------+
14 rows in set (0.01 sec)

mysql> use community;
Database changed
mysql> show tables;
+---------------------+
| Tables_in_community |
+---------------------+
| hibernate_sequence  |
| product             |
| review              |
| user                |
+---------------------+
4 rows in set (0.00 sec)
```

```
mysql> describe product;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| code          | varchar(255) | NO   | PRI | NULL    |       |
| brand         | varchar(255) | YES  |     | NULL    |       |
| name          | varchar(255) | YES  |     | NULL    |       |
| avg_rating    | float        | YES  |     | NULL    |       |
| no_of_reviews | int(11)      | YES  |     | NULL    |       |
| approval      | varchar(400) | YES  |     | no      |       |
+---------------+--------------+------+-----+---------+-------+
6 rows in set (0.00 sec)

mysql> describe user;
+-----------+--------------+------+-----+---------+-------+
| Field     | Type         | Null | Key | Default | Extra |
+-----------+--------------+------+-----+---------+-------+
| email     | varchar(255) | NO   | PRI | NULL    |       |
| firstname | varchar(255) | YES  |     | NULL    |       |
| lastname  | varchar(255) | YES  |     | NULL    |       |
| password  | varchar(255) | YES  |     | NULL    |       |
+-----------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql> describe review;
+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| review_id    | int(11)      | NO   | PRI | NULL    | auto_increment |
| approval     | varchar(400) | YES  |     | no      |                |
| heading      | varchar(255) | YES  |     | NULL    |                |
| product_code | varchar(255) | YES  |     | NULL    |                |
| rating       | float        | YES  |     | NULL    |                |
| review       | varchar(255) | YES  |     | NULL    |                |
+--------------+--------------+------+-----+---------+----------------+
6 rows in set (0.00 sec)
```

```
mysql> select * from product;
+---------------+---------+-----------------------------+------------+---------------+----------+
| code          | brand   | name                        | avg_rating | no_of_reviews | approval |
+---------------+---------+-----------------------------+------------+---------------+----------+
| a101          | Puma    | Shirts                      |          0 |             0 | yes      |
| a102          | Nike    | Shirts                      |       3.25 |             2 | yes      |
| a104          | puma    | TShirts                     |          0 |             0 | yes      |
| a105          | puma    | TShirts                     |          0 |             0 | yes      |
| a106          | puma    | TShirts                     |          0 |             0 | yes      |
| ab101         | puma    | TShirts                     |          0 |             0 | yes      |
| ab102         | adidas  | TShirts                     |          4 |             1 | yes      |
| ab103         | nike    | TShirts                     |          0 |             0 | yes      |
| AD1234QWE     | adidas  | ReadyToGo                   |          0 |             0 | yes      |
| ADC13242545LY | Adidas  | DesignedToMove              |          4 |             2 | yes      |
| ADC14536258MP | Adidas  | Purple-Slim-Fit-Aeroready   |          4 |             1 | yes      |
| ADC23627167LB | Adidas  | Solid-Freelift-Tennis-T-shirt |        3 |             1 | yes      |
| ADC23627167MM | Adidas  | Solid-Freelift-Tennis-T-shirt |        2 |             1 | yes      |
| ADC76537883SB | Adidas  | Adidas-Printed-Win-2.0-Tee  |          0 |             0 | yes      |
| ASD123QWE     | Adidas  | ReadyToGo                   |          0 |             0 | no       |
| awer1234@     | puma    | TShirts                     |          0 |             0 | yes      |
| NICB7952103MP | Nike    | AMBUSH                      |        4.5 |             1 | yes      |
| NICJ0921092MB | Nike    | T-Shirts                    |          0 |             0 | yes      |
| NICJ0921092SG | Nike    | TShirt                      |          0 |             0 | yes      |
| NIDD0285100MW | Nike    | Jordan                      |        3.5 |             3 | yes      |
| NIDJ1829010MB | Nike    | Sportswear                  |          5 |             1 | yes      |
| PU581371LB    | PUMA    | Nu-tility                   |          0 |             0 | yes      |
| PU581371MB    | PUMA    | Nu-tility                   |          0 |             0 | yes      |
| PU581371MP    | PUMA    | Nu-tility                   |          0 |             0 | yes      |
| PU847760SB    | PUMA    | Graphic                     |          0 |             0 | yes      |
| PU847828MB    | PUMA    | GraphicT-Shirts             |          0 |             0 | yes      |
| PU847828XW    | PUMA    | TraiPUng                    |          0 |             0 | yes      |
+---------------+---------+-----------------------------+------------+---------------+----------+
27 rows in set (0.00 sec)
```

```
mysql> select * from user;
+-------------------------+-----------+----------+-------------+
| email                   | firstname | lastname | password    |
+-------------------------+-----------+----------+-------------+
| admin@gmail.com         | admin     | admin    | admin123@   |
| kritikasingh@gmail.com  | kritika   | singh    | kritika123@ |
| nidhisingh@gmail.com    | Nidhi     | Singh    | nidhi123@   |
| ritikachandel@gmail.com | Ritika    | Chandel  | ritika123@  |
+-------------------------+-----------+----------+-------------+
4 rows in set (0.00 sec)
```

```
mysql> select * from review;
+-----------+----------+---------------+---------------+--------+---------------------------------------------------------------------------------+
| review_id | approval | heading       | product_code  | rating | review                                                                          |
+-----------+----------+---------------+---------------+--------+---------------------------------------------------------------------------------+
|         2 | yes      | Nice product!!| a102          |    4.5 | This is product is very nice and good.I like it's quality and color:)            |
|         3 | yes      | Good Quality  | ADC14536258MP |      4 | This is product is very nice and good.I like it's quality and color:)            |
|         5 | yes      | Very Bad:(    | a102          |      2 | I do not like this product. Color and quality both are very bad...              |
|         8 | yes      | Awesome!!     | NIDJ1829010MB |      5 | I have used this product and it is very nice. I recommend this product for other users.... |
|         9 | yes      | Nice product!!| NIDD0285100MW |      3 | I like this product!!                                                           |
|        11 | yes      | Nice product!!| NIDD0285100MW |    3.5 | This product is very nice and good. I like this product:)                        |
|        12 | yes      | Nice product!!| NIDD0285100MW |      4 | I like this product. It is very good...                                         |
|        13 | yes      | Awesome!!     | ADC13242545LY |      5 | this is very nice product:)                                                     |
|        14 | yes      | Nice product!!| ADC23627167LB |      3 | This product is nice. I like it..                                               |
|        15 | yes      | Very Bad:(    | ADC23627167MM |      2 | I do not like this product...                                                   |
|        16 | yes      | Awesome!!     | NICB7952103MP |    4.5 | this product is very nice:)                                                     |
|        17 | yes      | Nice product!!| ADC13242545LY |      3 | This is very nice product:)                                                     |
|        19 | no       | Awesome!!     | a101          |      4 | This product is very nice:)                                                     |
|        21 | yes      | Nice product!!| ab102         |      4 | This product is very nice...                                                    |
|        23 | no       | Nice product!!| ab103         |    3.5 | This is very nice product:|)                                                    |
+-----------+----------+---------------+---------------+--------+---------------------------------------------------------------------------------+
15 rows in set (0.00 sec)
```

User authentication:

API Build a Rest API to support successful/unsuccessful user authentication validation.

User registration:

API Build a Rest API to register new users.

Search product:

API Build a Rest API to search a product by one or many of the following parameters:

1. Product name
2. Brand
3. Product code

Post reviews:

API Build a Rest API to post a new review.

[BONUS] Approve review:

API Build a Rest API to approve a review. Request review API Build a Rest API to request a review for a product.

Stats :

API Build a Rest API to get count of stats to be shown on homepage