CS387 Project Report

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Project Details : <u>SwiftBuy</u>

We have created a sample e-commerce application for buying and selling of products.

Functionalities Implemented:

- **User**

  1. Create an account i.e. Sign-Up : New users can create a new account with their name and email address. They will have to set a password for their account and provide an optional referral token. They will be asked if they want to register as a buyer or a seller and and they would also have to fill their address and contact number.

  2. Login: Users login by providing email and password. If valid redirect to the site homepage. This has a navigation bar with options for buyer homepage or seller homepage. This will confirm if the user with corresponding credentials exists, and if not returns error.

  3. Add Money to wallet: Users can add money to their wallet from their bank through a payment gateway. All the options available in the payment gateway table will be displayed for the user to choose from, when he/she chooses the appropriate option and the transaction is successful, the wallet_amount of the user will be updated accordingly.

  4. Wallet Details: This will show the current balance in the wallet of the user which is stored in the User table. Previous transactions will also be visible here which will show the change in wallet amount. The wallet change can be due to the following reasons - product was sold, product was bought from the wallet, money was added to wallet externally.

Figure 1: Register a new user

- **Buyer** After login and landing on buyer homepage, navigation bar has following links - Catalog, settings, see/edit user information, buy history

  1. Search product by name: Can either type a product keyword eg. shirts or shoes in the search bar. Typing "sh" would show a drop-down list of with names of items having prefix "sh". Selecting an option from the list will display the available items with some basic information and a clickable link for details.

  2. Browse the catalog: Select Buyer → Catalog from navigation bar. Then select from various categories as displayed. Normal catalog will fetch all the products' name and price from Products table, filters for categories or brands will be displayed by applying filters in the SQL query.
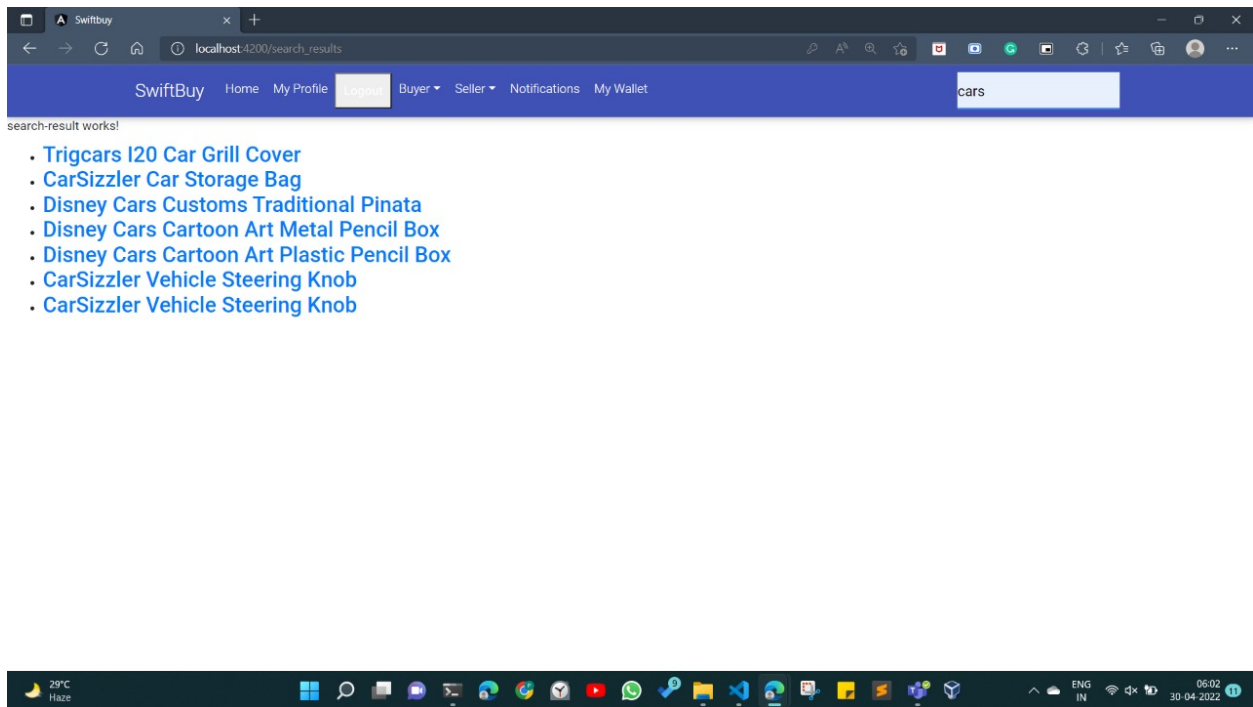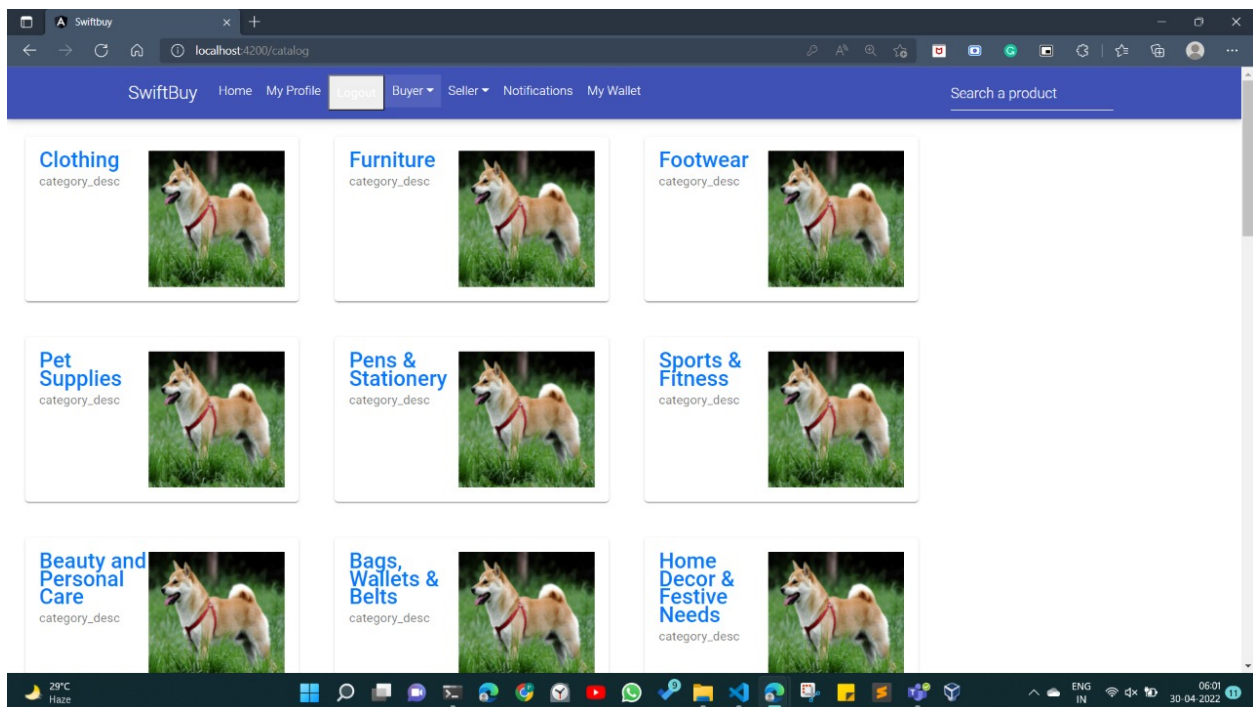
Figure 2: Searching Car
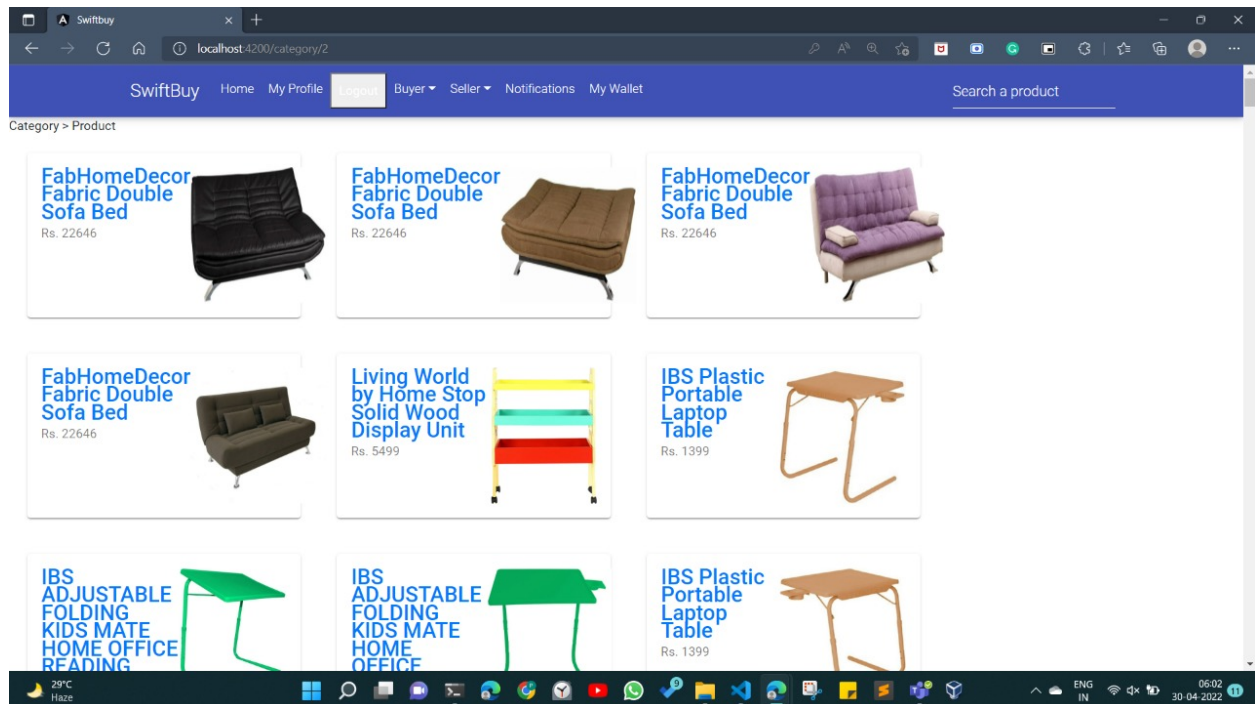

Figure 3: Categories List

Figure 4: Products inside Category

3. Add to cart for a product (individually): On product details page, buyer can click on add to cart button after selecting the quantity to buy. This will add an entry in the in_cart table.

4. Buy all products in cart: This will be useful if the buyer wants to buy multiple different items at once. (Will have to do payment and checkout only once). Clicking on the cart icon, and then on the "buy now" option will ask for payment gateway. Once the payment is successful, the wallet amount of buyer (if payment is done by wallet) and all the sellers is updated, an entry in the order table is added, entries corresponding to different products are added to transaction table, products' quantities are updated and products are removed from the cart. This will also create new notifications for the corresponding product sellers that their product has been sold.

5. See buy history: Selecting Buyer → Buy History will take user to history page. All previous transactions will be listed.

- **Seller** After login and landing on seller homepage - Navigation bar has following main links - Add Product, Sell history, Analytics, Currently Selling(i.e. added products)

    1. Add a new product for sale: fill up Add Product form. This will add a new entry to the products table with corresponding information. While adding a product, users will choose brand and category from a dropdown menu whose entries
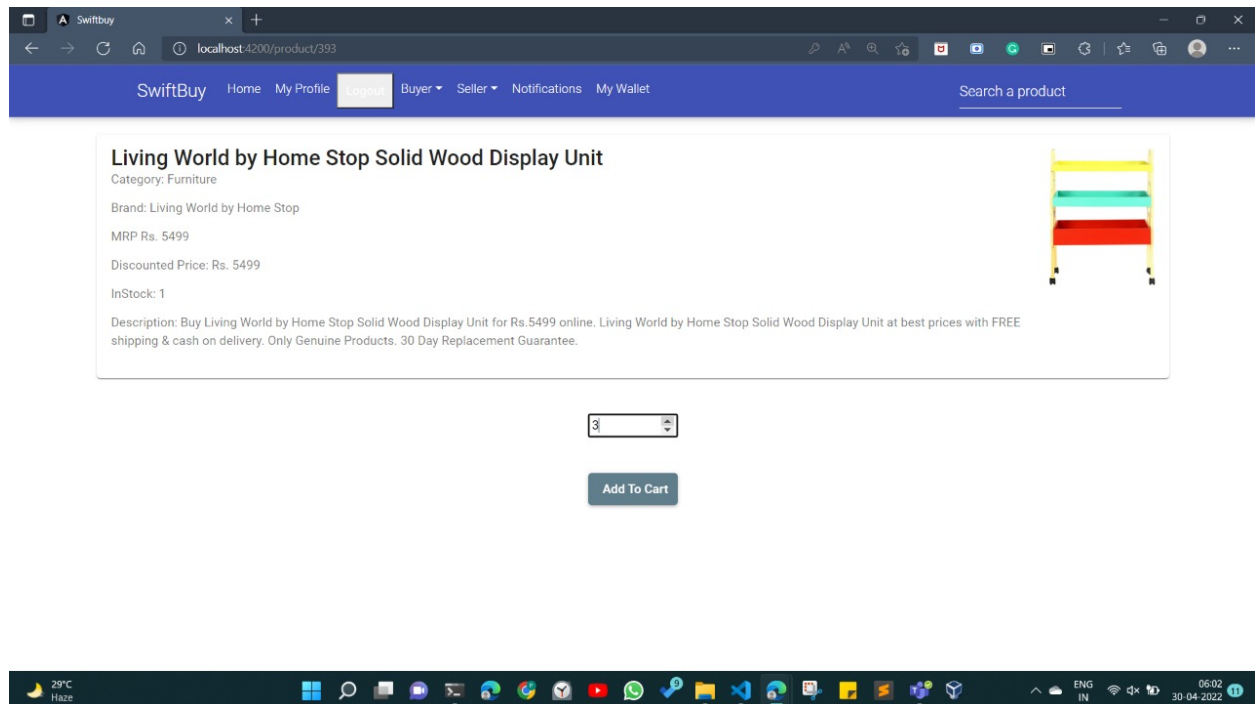
Figure 5: Product Descriprtion

will be fetched from their respective tables.

2. Update inventory for (own) existing products: can update quantity, add/update discount (product offers are highlighted on product details page), advertise the product.

3. Notification: Seller will get notified when his/her product is sold.

4. Seller can advertise his/her products. Advertised Products will appear in the home page and it will be easier for them to capture user's attention.

5. Seller can see his/her sell history.

Testing Analysis:

- Trying to Login by Providing Invalid Credentials.

- Trying to Register already existing email values and/or wrong email.

- Reporting Error if Password and Confirm Password aren't same.

- Signup using Invalid Referral Token.

- Updated Profile being shown in the user Profile section after submitting.

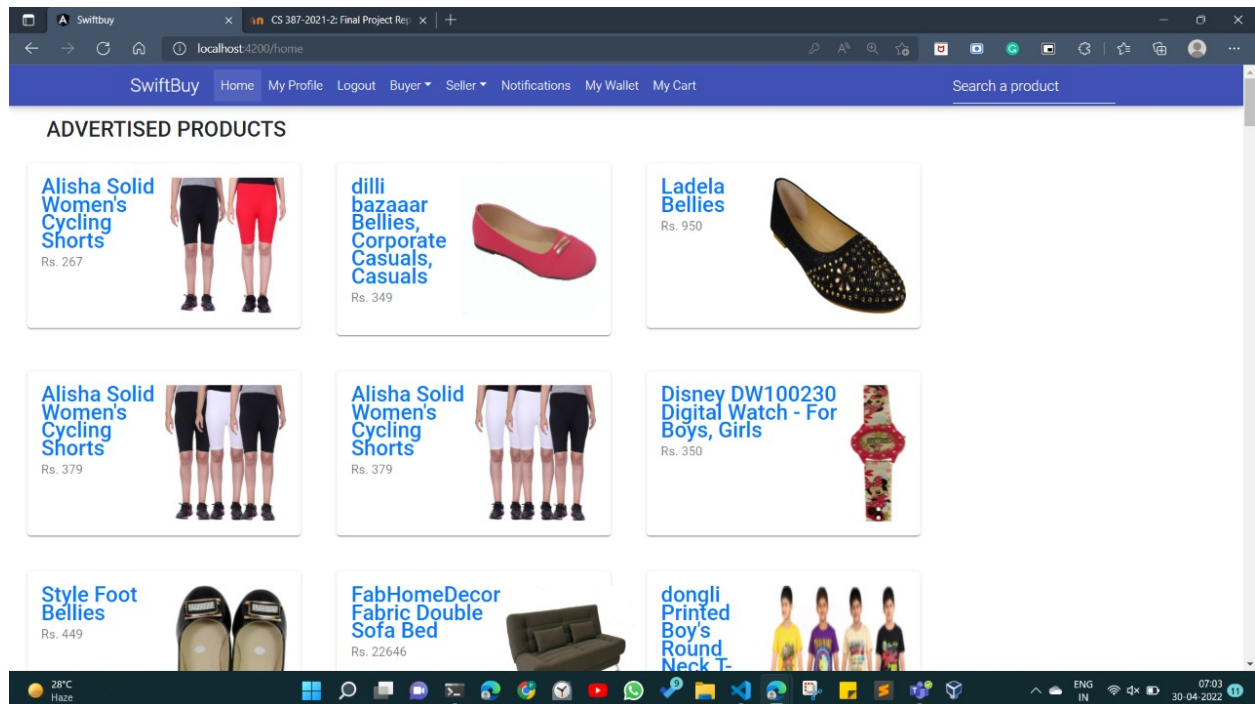- Adding Money to the wallet getting reflected in the wallet amount.

Figure 6: Advertised Products

- Checking whether newly added product is visible in products catalog.

- Throwing error if quantity demanded is greater than quantity available.

- Error shown if wallet amount is less than required total amount.

- No access to features without Login/User Authentication.

Functionalities/Testing not completed:

- Update Product form to re-implemented.

- Load Testing to be done using Tsung.

- Analytics report using spark.

Requirements:

- Package manager npm version 6.14.8

- Node version 14.15.0

- Django Version 2.2.14

- Angular CLI version 13.2.0

- Postgres Application

Github Link

Click here for Github Repo