Software Engineering Miniproject II

OLX System

PROJECT REPORT

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Problem Statement : OLX System to buy and sell products.

Objectives :

1. Create a user interface system.
2. Display products and provide product information
3. Maintain Customer Profile.
4. Buy and Sell products with few easy steps.
5. Filtering of products

Motivation:

Many people struggle when they want to sell an item which is of no use to them and they can't even throw such expensive things. There are people who cannot afford to buy things and look out to buy a second-hand product instead of new ones. The buyer and seller will contact a broker and offer a commission to the broker which may inculcate some loss to the buyer as well as the seller. A broker will have control over a small region and not entertain a population as well. So there may be a possibility that you won't find a buyer or a seller. So there can be some solution through which the buyer and seller contact each other directly.

Summary of SRS
Purpose : The purpose of this project is to develop a user-friendly web application which will help even the non-tech-savvy people to use it efficiently to buy and products.

Product Perspective:

This system will consist of web portal. The portal will facilitate the users to buy or sell a product online.

The web portal will need to communicate to a database as we need to store data somewhere.

Product Functions

1. User will has to first register in order to use the application.
2. User will then login using email id and password..
3. User can view all the products present on the home page.
4. User can filter the products on the home page based on category.
5. User can buy a product.
6. User can sell a product.
7. User can view his/her profile and see all products which he has in cart or has to sell.
8. User can checkout and logout.

Software Quality Attributes

1. Easy to operate.
2. Reliability
3. Maintainability
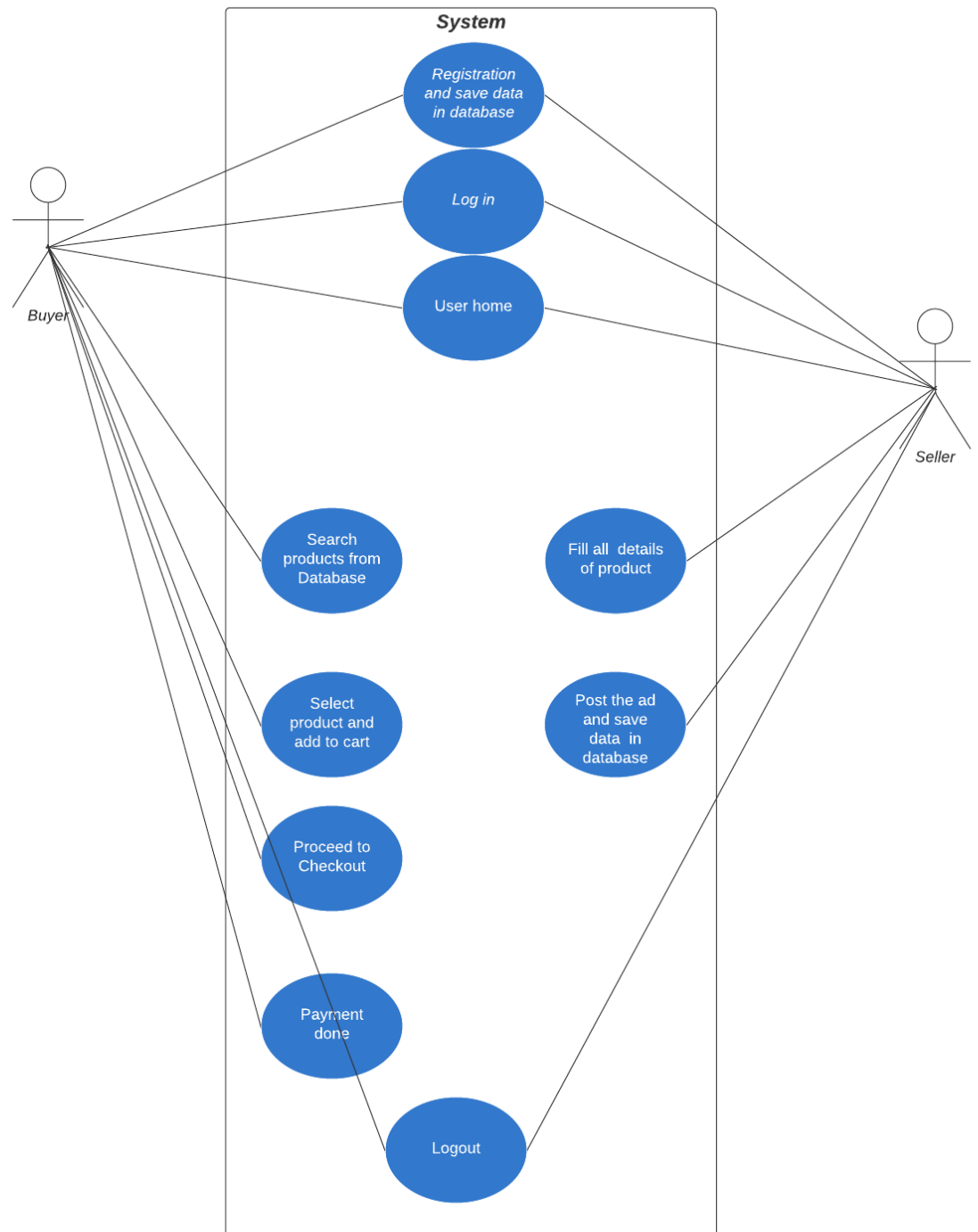4. Planned approach in working
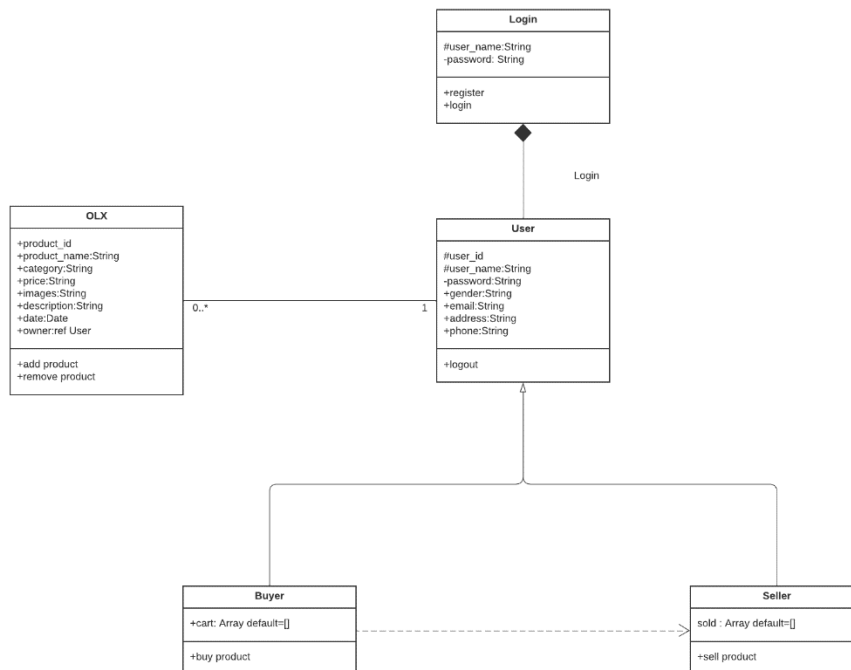
UML Diagrams

1. **Use Case diagram**

   Use case diagram is the model of interaction between the actors (external users of the software product) and the software product itself.
   In this use case diagram, we have two actors: OLX seller and buyer. All the roles of buyer and seller are shown by joining the actor and the use case scenario with a solid line. Buyer has the roles of registering, login in, buying a product, searching for a product, adding to the cart, checkout, and logout. The seller has the roles of registering, login in, selling products, filling in product details, and logout.
   The use cases are shown inside a rectangle defining the environment of the project system.

System

Registration and save data in database

Log in

User home

Search products from Database

Fill all details of product

Select product and add to cart

Post the ad and save data in database

Proceed to Checkout

Payment done

Logout

Buyer

Seller

2. Class Diagram

Class diagram depicts the classes and interrelationships. It describes the structure and behaviour of the model. Each class is represented by a rectangle which consists of Name, Attributes, Operations/Methods.

In the class diagram, we have classes like User, OLX(product database), login, Form, Buy product, sell product, pay and checkout. The operations of user include register, login, buy product , sell product, logout. The operations performed on the OLX table include adding product and removing product .Similarly, classes describing the structure and behavior of login, form are defined. Modifiers define the visibility of the attributes where '+' means public,'-' means private and '#' means protected.

Activity Diagram:
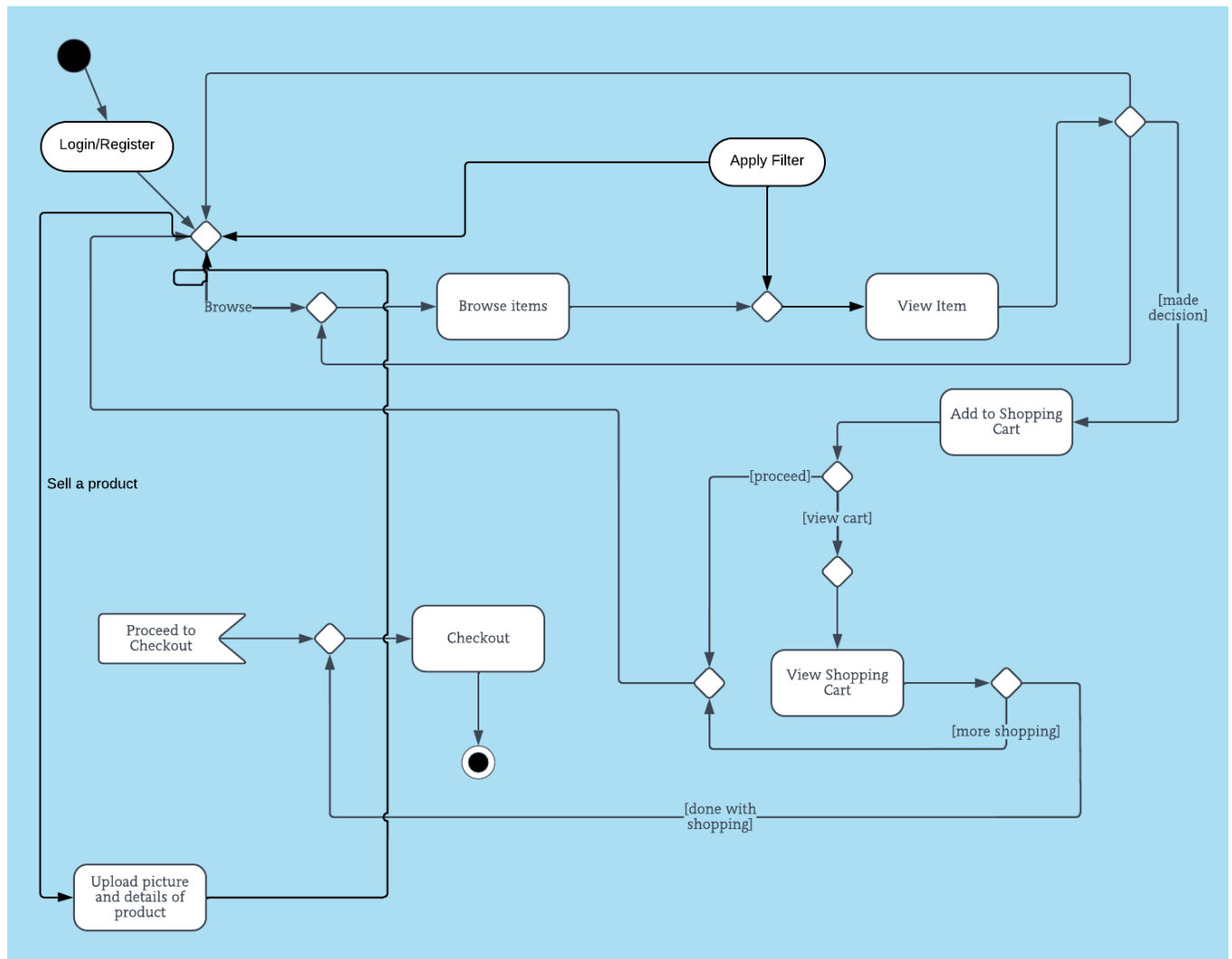
The activity shows how to application basically works.

First the user has login or register and he/she can browse products, apply filter,buy a product and sell a product.
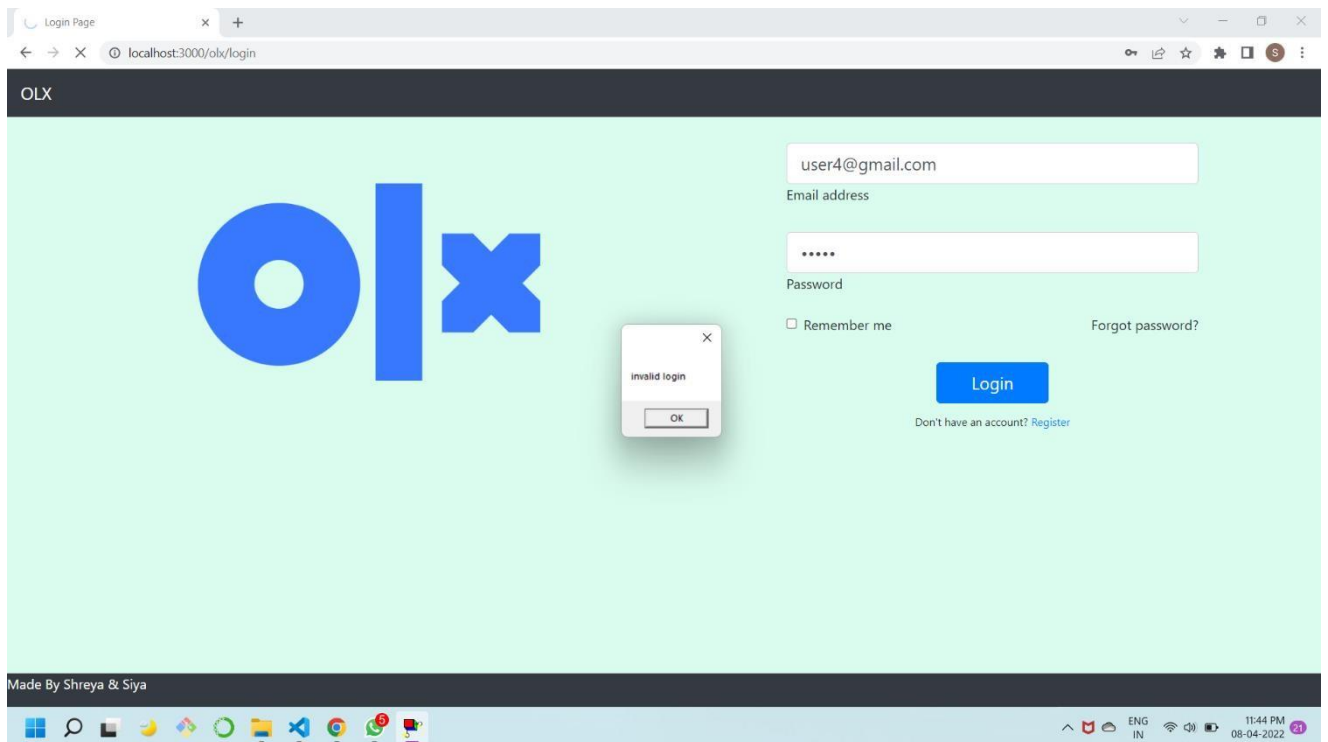
Coding screenshots with result
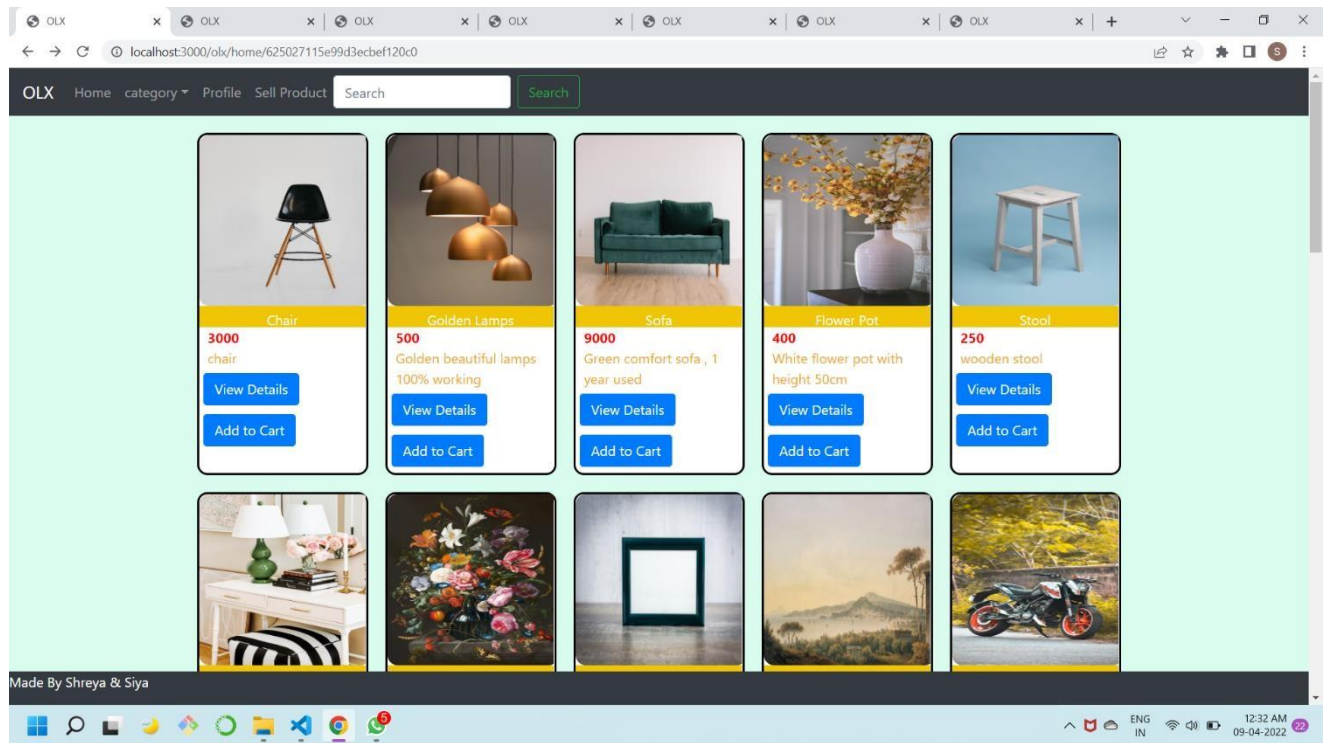
The first is the register page for user.
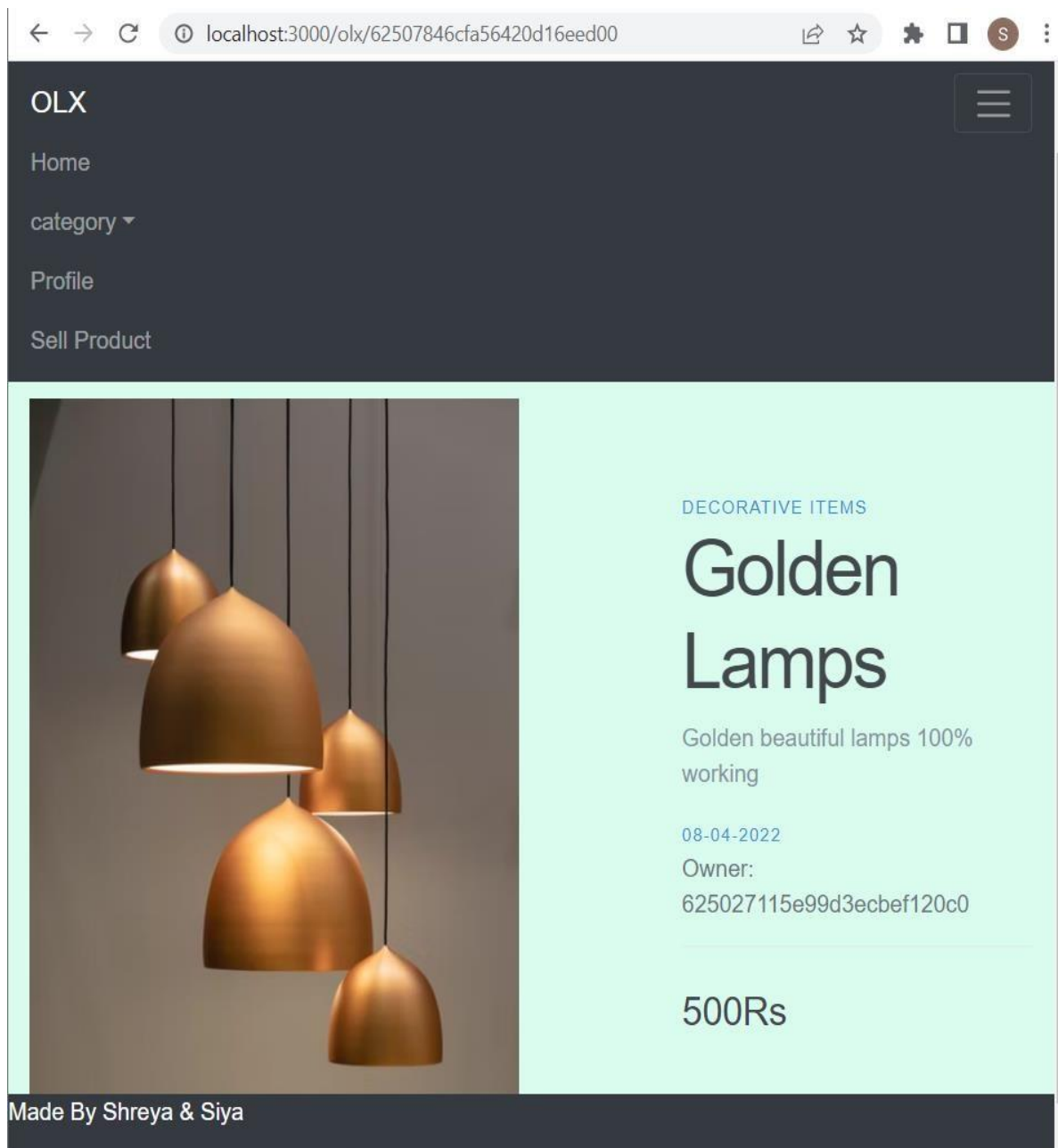

This is the screenshot of user login window.
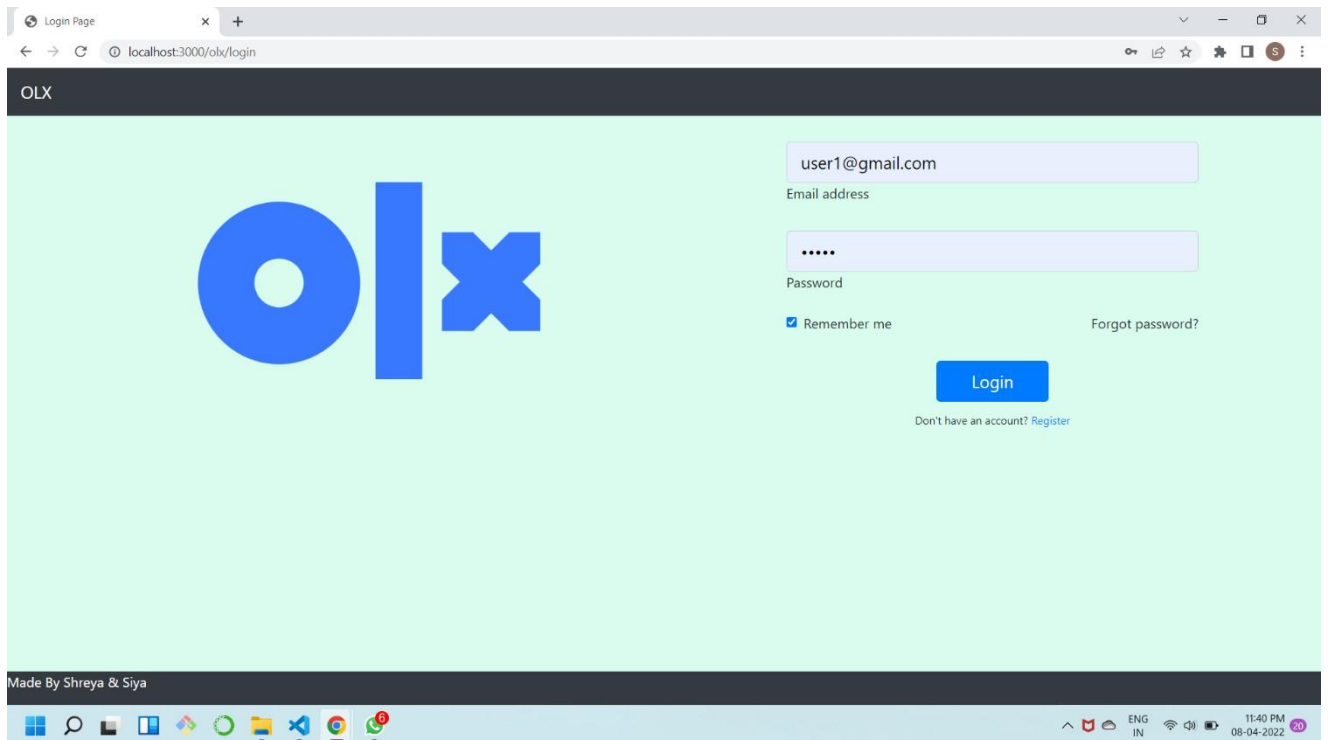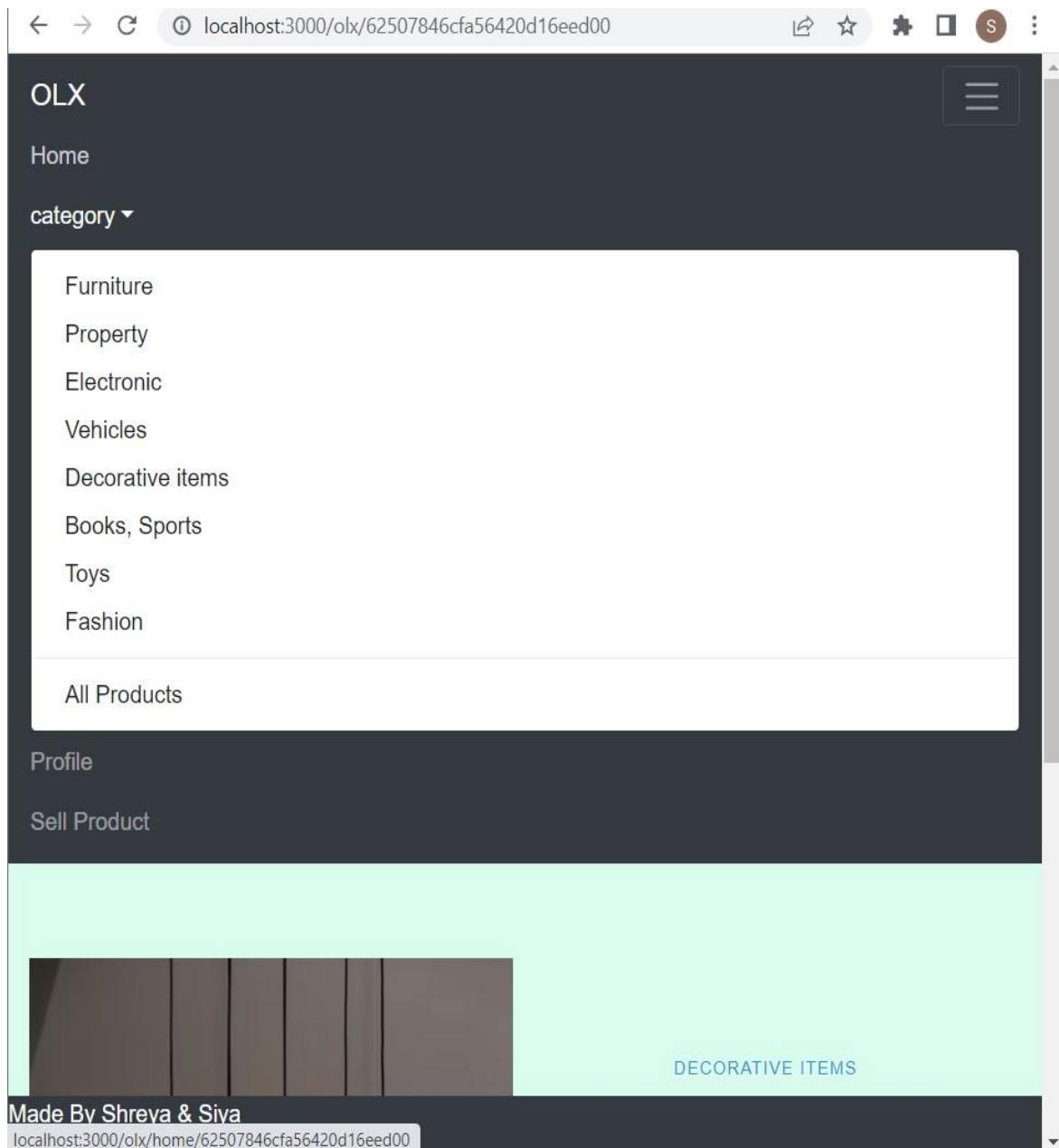
This is screenshot if the login fails.

After logging in the user can view products and there is navigation using which user can view profile, sell product, filter by category
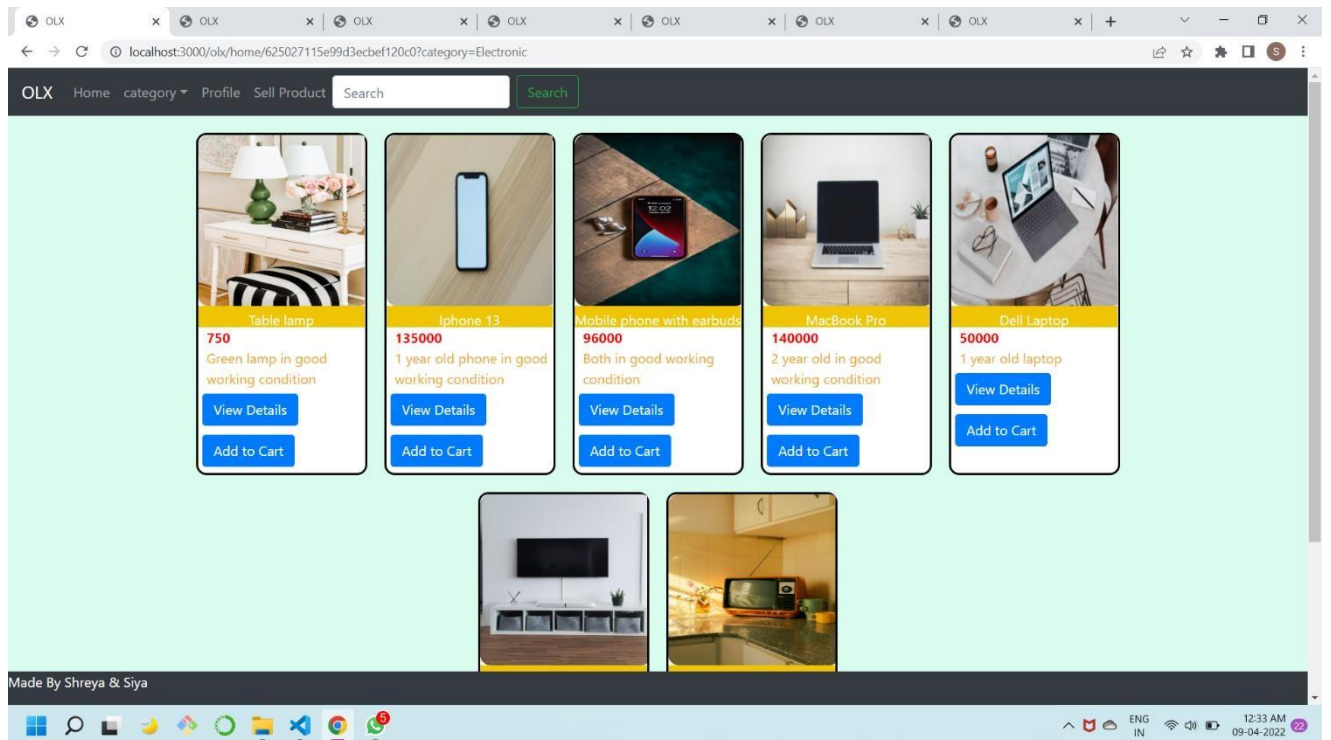
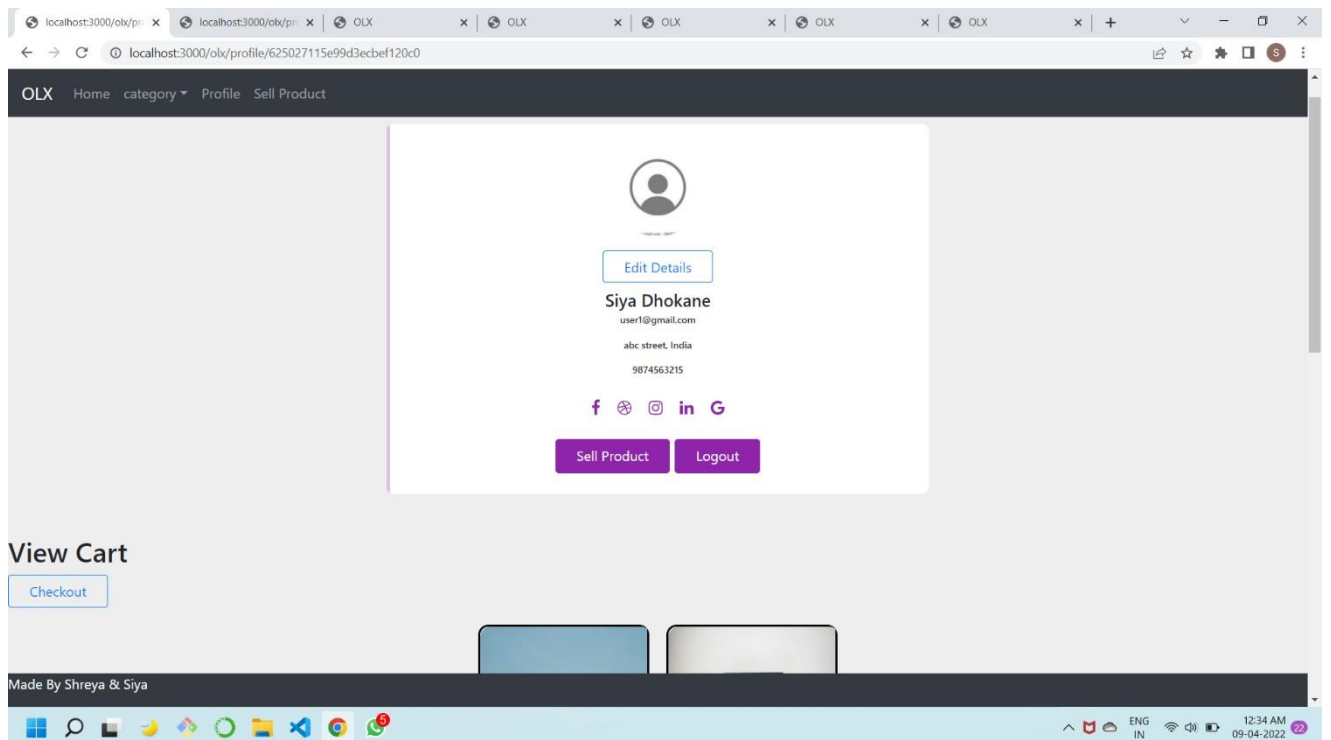This screenshot shows complete details of the product

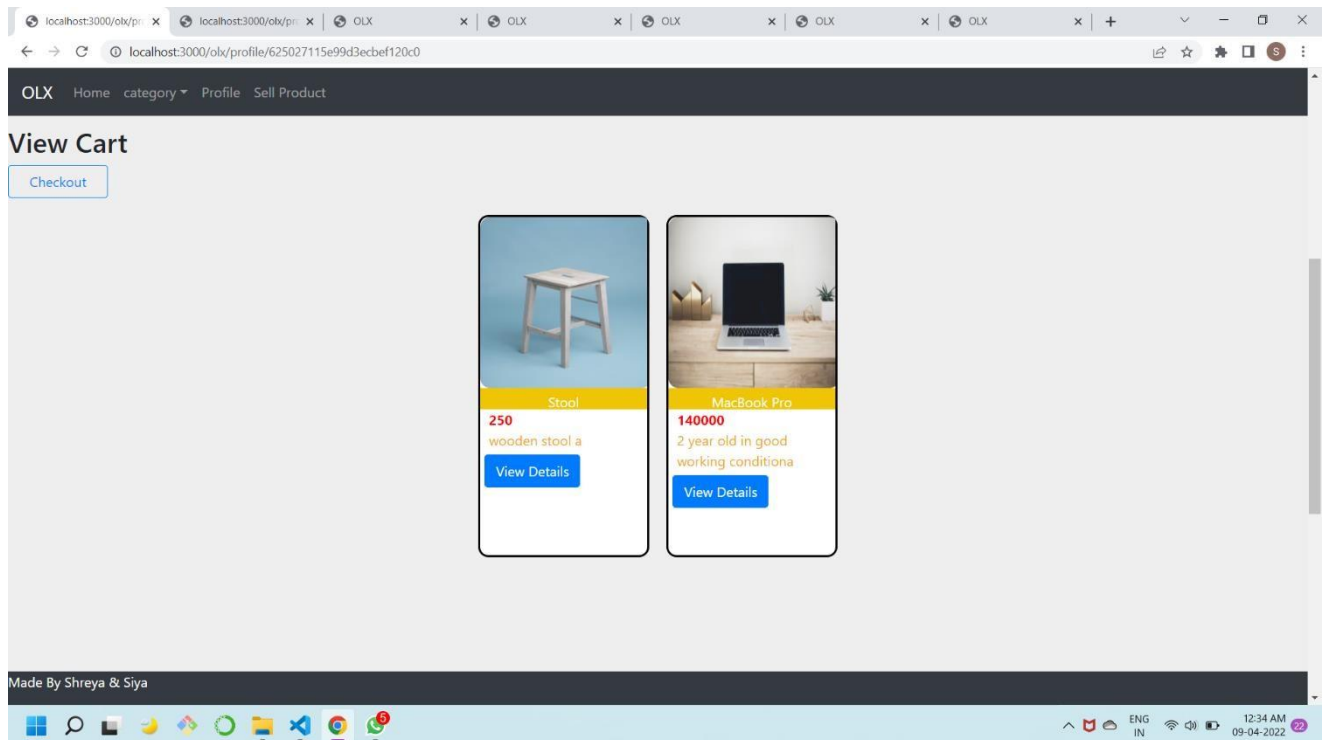This screenshot shows the dropdown menu using which you can filter by category.

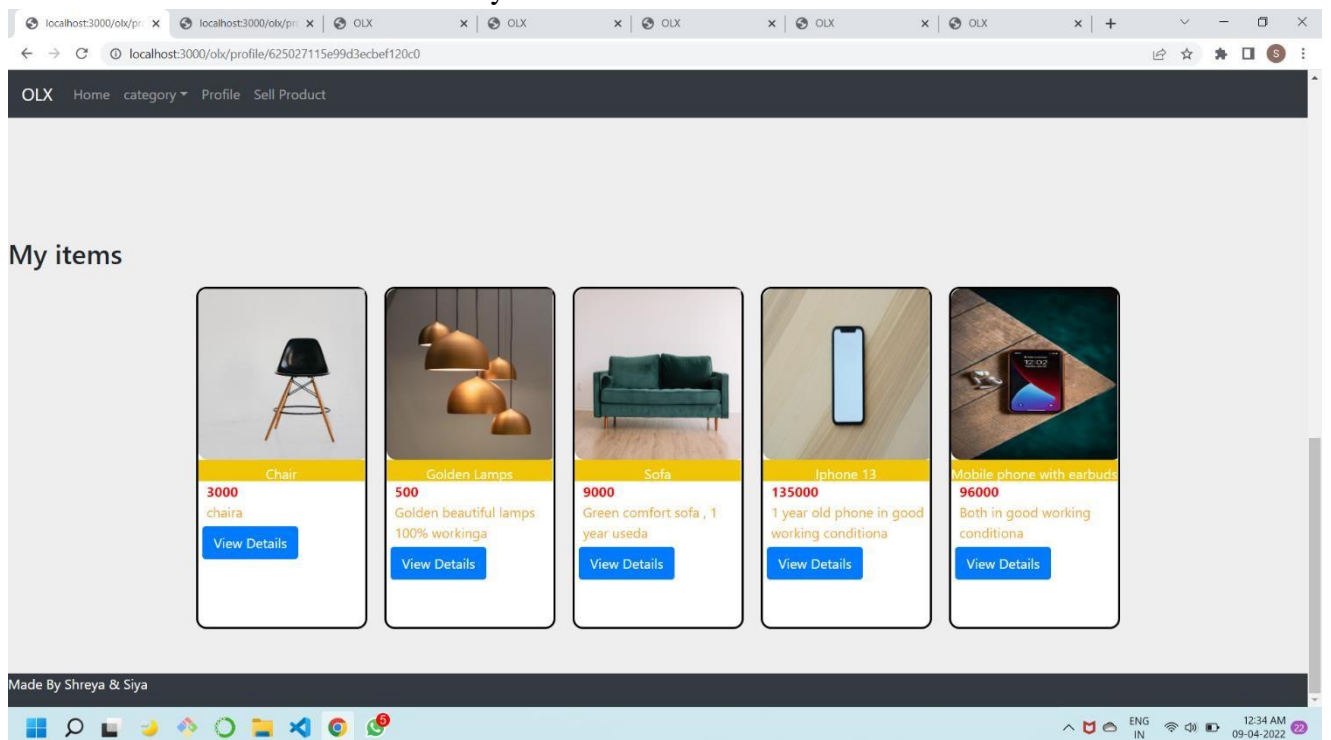This is the screenshot when user filters product by category of electronics

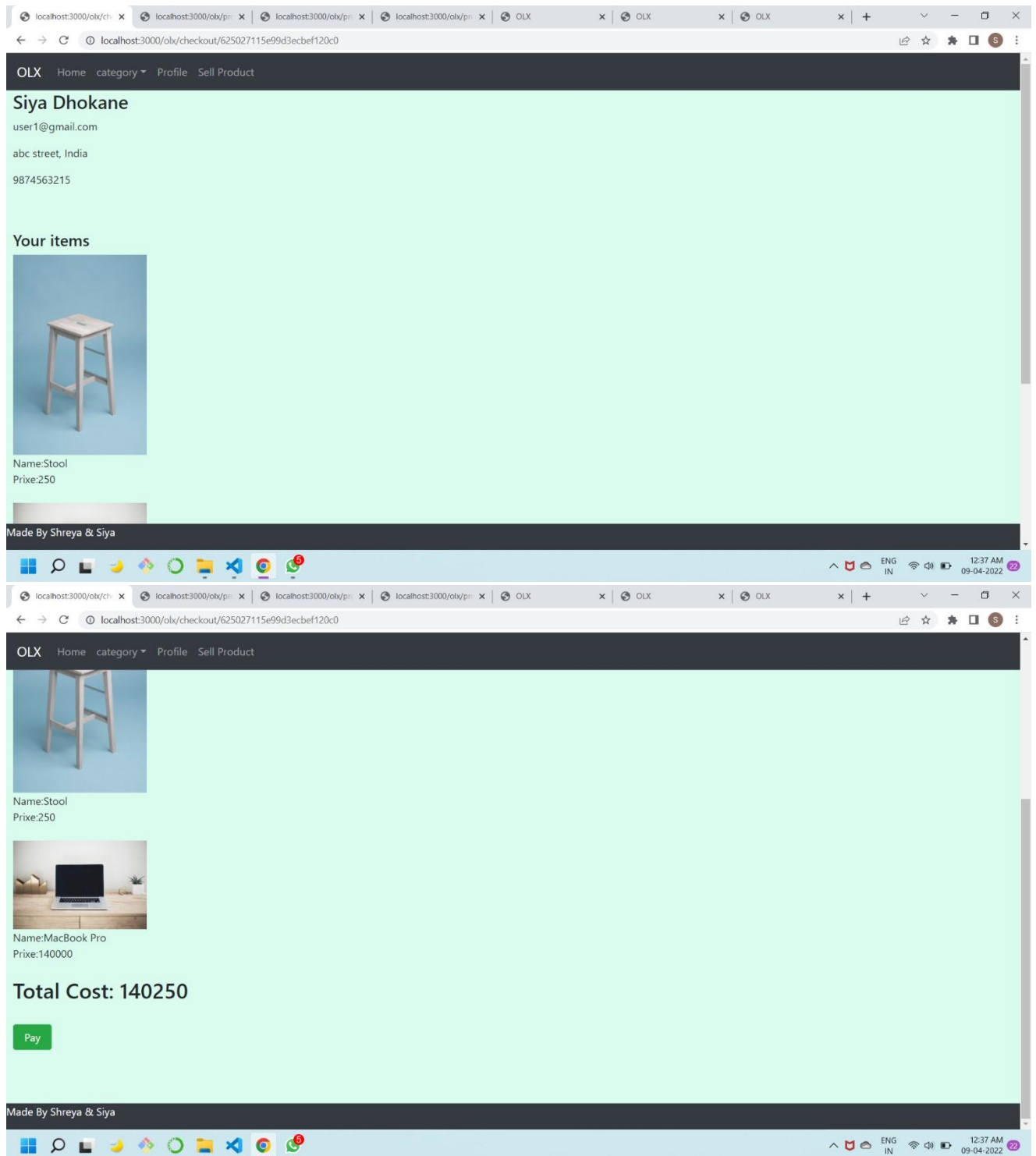This screenshot shows the profile of the user.

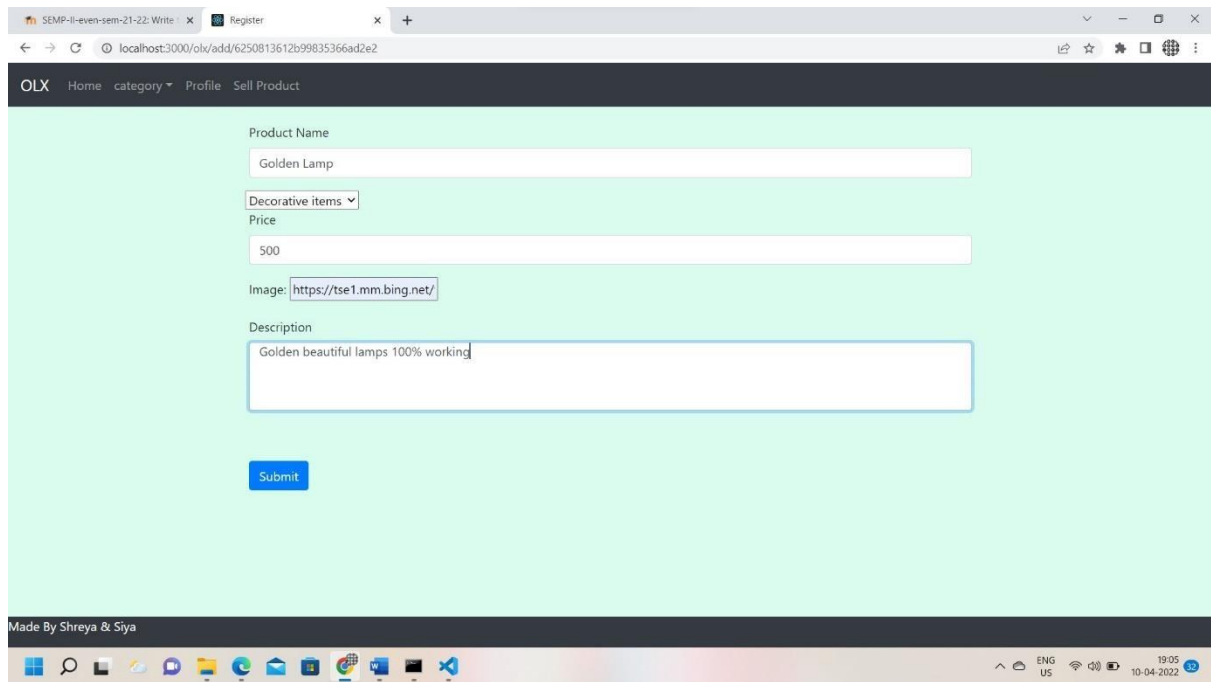This screenshot shows the cart of the user

This screenshot shows items for sale by user

This is the screenshot of the checkout page.

This screenshot shows the form using which you can post a product for sale.

Testing (Approach used and bugs identified)

Test Case ID	Test Case Type	Description	Test Step	Expected Result	Status
1	Functionality	GUI Testing	Clicking on all buttons and elements.	All the links and events are working properly	Pass
2	Security	User login and password feature working	Creating a new user and password	New users can register and login afterwards	Pass (If login fails handle the event properly)
3	Usability	Ensure that the Frontend and backend interact efficiently	Using the GUI.	Encoding and decoding are happening properly.	Pass
4	Accessibility	Checking if access info is shown for each button	Hovering over each button.	Proper information is shown for each.	Pass
5	Functionality	Checking if the passwordis hidden and image url is supported	Taking a sample for image and hiding a of passwords.	Passwords are hidden properly and the images are displayed properly	Pass
6	Compatibility	Check if the software works on supported OS	Installing and running software on different OS	The software will run the same functions on each OS	Pass

Future Scope

Social media: Social media plays a significant role in the success of eCommerce businesses as clients stay updated via the posts published on media. Also, social media creates a stronger web presence that promotes the business. In addition, you could promote your business through social media campaigns and even add like & comment buttons for customers.

Recommendation System: Artificial Intelligence would play a great role in order to recommend users to buy products on the site. Based on the history of the products bought by the user AI would help in suggesting various products to users.

App: It has become quite difficult for people to live without their mobile devices. It has increased the production of new applications for eCommerce businesses. So, these businesses are switching to the app-only approach to connect with their customers conveniently.

Google Buttons: Google has introduced the "Buy Now" button that allows e-shoppers to search for any products on Google. With this, customers could purchase any product with just a single click. So, the shopping process becomes flexible with no inconvenience to the customer.

Verify users: Verifying users by sending them one time password through emails and messages

Conclusion

The system provides a user-friendly interface. It has advantages like it can be

used by peoples of different age groups. Users have their functionalities

clearly specified and executed. **GitHub project URL**

https://github.com/Siya2704/se_miniproject.git