CS201 & CS263 GRP PROJECT

Group-21
IIIT VADODARA

Project title -- : e-BAZAR

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Abstract

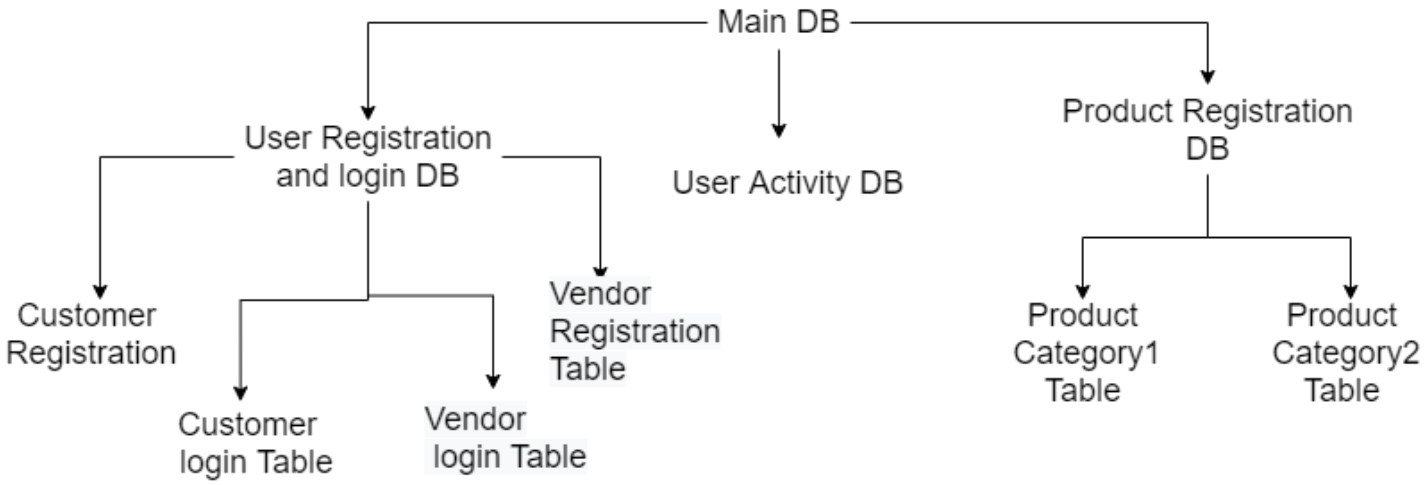
The era of internet has brought us an incredible medium for knowledge as well as revolution in global communication medium. The Internet is increasingly being used as an innovative tool for marketing goods and services. The Internet has added a new dimension to the traditional nature of retail shopping. The internet offers many advantages over traditional shopping channels and the medium is a competitive threat to traditional retail outlets. Globally, consumers are rapidly adopting Internet shopping.

The business to consumer aspect of electronic commerce (e-commerce) is the most visible business use of the World Wide Web. The primary goal of an e-commerce site is to sell goods and services online. This project deals with developing an e-commerce website for Online buying and selling goods.

The main goal of the project is to provide an online portal where customers can enjoy easy shopping anywhere and for the vendors it provides a decent platform for selling goods.

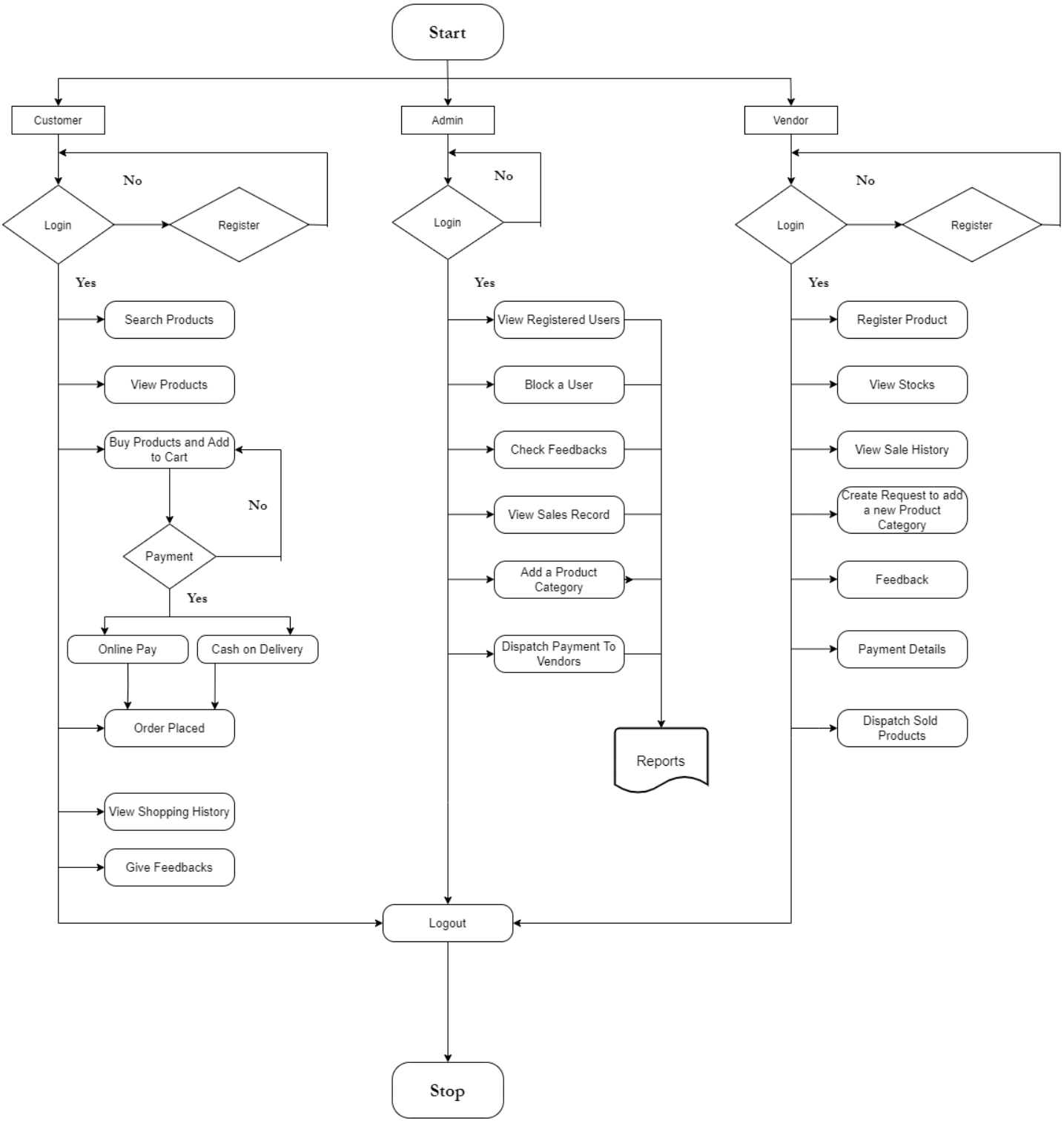
Flowcharts

Database Structure:



- **A registration table will include essential details about the user while registering along with a unique user_id.**
- **A login table will include login_user_id, login_time, fetched username and user_id from the registration table.**
- **User activity database will be a database of user_specific tables where user shopping history, login time and other user specific key details will be stored.**
- **Product registration Database will have tables by product Category (for example a table for electronics items, or a table for clothing items), which will include the details of the product added like name, sub_category (ex. LAPTOP, Mobile Phones), qualities, quantity, price etc.**

Flow Chart:


Start
Customer
Admin
Vendor
No
Login
Register
Yes
Search Products
View Products
Buy Products and Add to Cart
Payment
Online Pay
Cash on Delivery
Order Placed
View Shopping History
Give Feedbacks
View Registered Users
Block a User
Check Feedbacks
View Sales Record
Add a Product Category
Dispatch Payment To Vendors
Reports
Register Product
View Stocks
View Sale History
Create Request to add a new Product Category
Feedback
Payment Details
Dispatch Sold Products
Logout
Stop

Planning

Being our first big project with no experience makes planning part as the most crucial part of the project. We have gone through various ecommerce website and tried to understand their working process.

Since it was a Webapp Project so we also have to learn HTML, CSS and JavaScript along with bootstrap for frontend and then for backend we learned JSP's and Servlets. And for the Database we learned MySQL this whole process took nearly four weeks.

Now coming to the project, we divided the project into four modules with respective functions given below:

I. Customer Module
- Login/Register
- Search for the Product
- Buy product and view/manage the cart
- Payment/Checkout
- View Previous login details
- View Shopping History
- Give Feedback / to seller /to admin

II. Vendor Module
- Login/Register
- Register the Product
- View the stocks

- View the sales history
- Request to add a new product category
- Give Feedback and see feed backs from customers
- See the Payment received (Optional)

III. Admin Module
- View the registered users
- Block a User
- See feedbacks
- Add a Product Category
- View sales record
- Dispatch payment to vendors (optional)

IV. General Module based upon Customer Module
- Search for a product
- Login/Register

Software used

We chose eclipse as our code editor because of it's opensource nature, along with Apache Tomcat 9.0. We used MySQL workbench to work with databases. To verify the result we used Google Chrome Browser to deploy the Web Application.

- Eclipse
- Apache Tomcat 9.0
- MySQL Workbench
- Google Chrome Browser

Programming languages Used

We used HTML, CSS, Java Script and Boots trap for frontend. We used Java Servlets and JSP's to support the website from backend, in addition, we used MySQL which is a relational database management System (RDBMS).

- HTML, CSS, JavaScript
- Bootstrap Library
- JSP's
- JAVA
- MySQL Queries.

Object-Oriented concepts used till now

Object-oriented programming is a model that provides different types of concepts, such as inheritance, abstraction, polymorphism, etc. These concepts aim to implement real-world entities in programs. They create working methods and variables to reuse them without compromising security.

In this project with the help of OOPs we solve the real world problem. IN this project till now we use basic four pillars of object-oriented programming such as inheritance, abstraction, polymorphism, encapsulation.

In the project we made classes like login.java , dao.java, signup.java etc and every new customer/user is the object of class as code shown below :

Dao obj=new Dao();

Inheritance: **Inheritance in Java** is a mechanism in which one object acquires all the properties and behaviors of a parent object. It is an important part of OOPs.

We use inheritance in this project for using inbuilt servlet classes in java in login.java/signup.java/dao.java we use inheritance for requesting and for response of database.

Some line of code from our project where we use inheritance

Code :**public class SignUP extends HttpServlet** {

```
@Override
protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
        // TODO Auto-generated method stub
        String name = req.getParameter("name");
        String email = req.getParameter("email");
        String mobNumber = req.getParameter("mobNumber").toString();
        String password = req.getParameter("password");
}
```

Polymorphism: Polymorphism in Java is a concept by which we can perform a *single action in different ways*.

Encapsulation: Encapsulation in Java is a *process of wrapping code and data together into a single unit*, for example, a capsule which is mixed of several medicine

We can create a fully encapsulated class in Java by making all the data members of the class private. Now we can use setter and getter methods to set and get the data in it.

We use getter and setter to take user name, address, mobile no. etc. and use specific modifiers like projected and private to hide and protect data from outside.

Abstraction: Abstraction is a process of hiding the implementation details and showing only functionality to the user.

We use abstraction in this project to hide functionality of functions to users like to set connection with databases. We use JDBC and their functions are hidden by the user.

Any issues which you have faced till now and how you addressed it

One of the biggest problems while working with the project was combining the independently developed modules into one, each of us have used slightly different names for variables resulting in bugs while combining, finding those bugs were not easy. To Reduce the chances from the next time we have used a similar naming structure all across the project modules so that bugs due to incorrect naming can be reduced.

Working and designing the frontend pages also not an easy task we have beautified some of the pages with the help of Bootstrap and CSS but still it took so much effort, due to lack of time, for now we have used the bootstrap default form structure provided, we are working on developing the website from scratch.

Since the web app involves multiple technologies as java servlets, HTML, CSS, MySQL so learning the concepts in the least time was a hard nut to crack so we decided to take it slow.

For now, the biggest challenge for us is to obtain the data from database and show it to users in nice format with an option to edit

so that vendor/user can make changes into the tables easily. We are still working towards solving it.

Screenshots of the work done till now

Completed Works

: Product registration

: User Registration

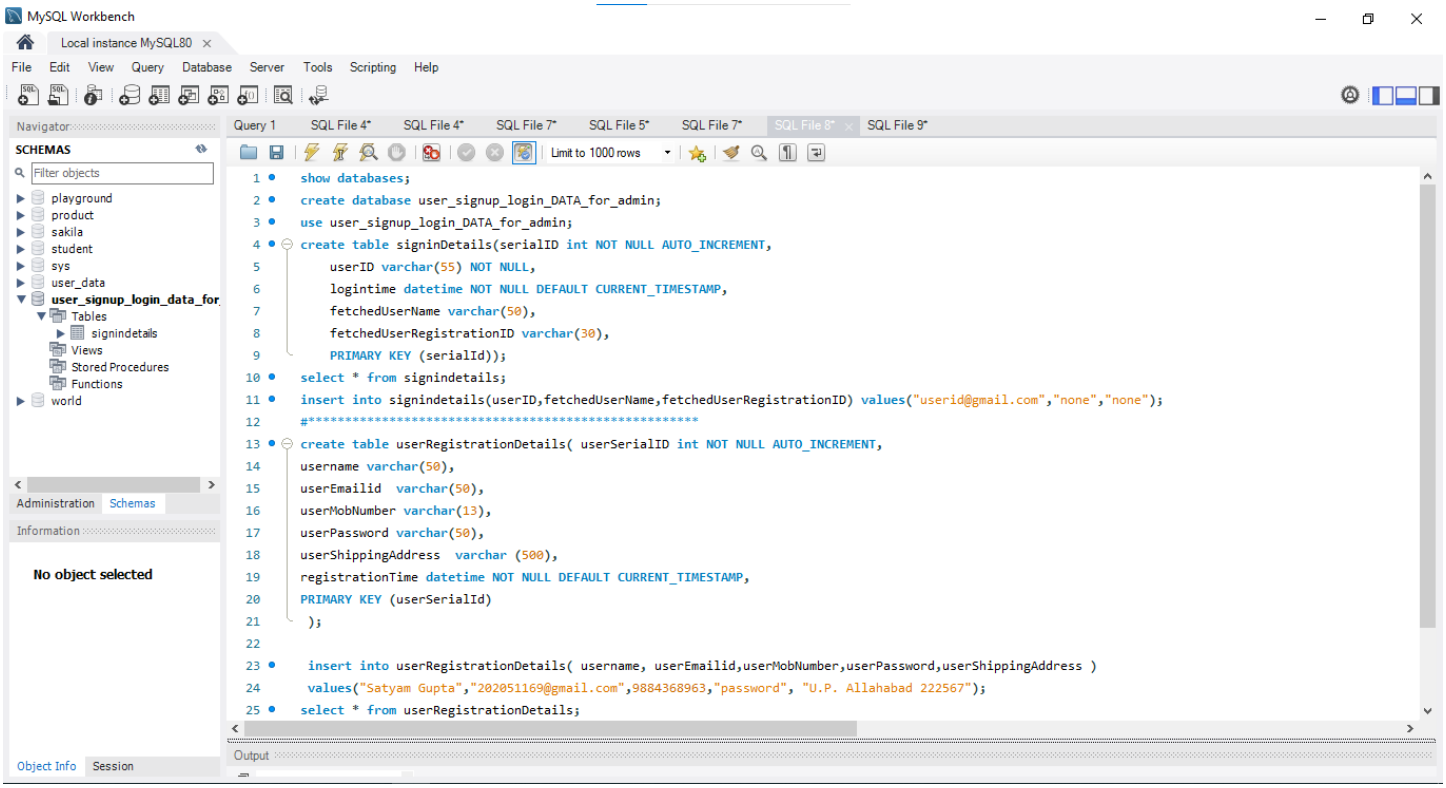
: User login Module

: Creation of user registration and login DB and connecting with the user registration page.

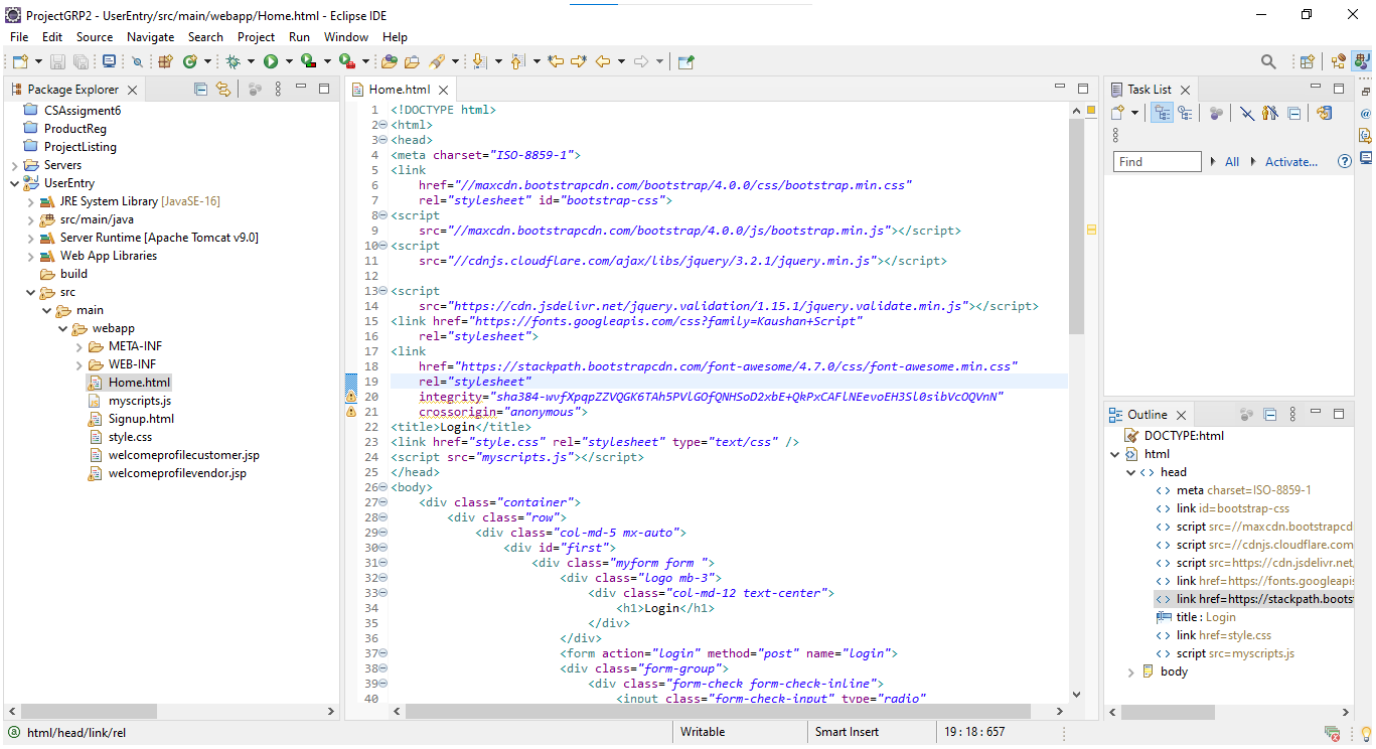
: Creation of Product Registration Database and connecting it with product registration page.

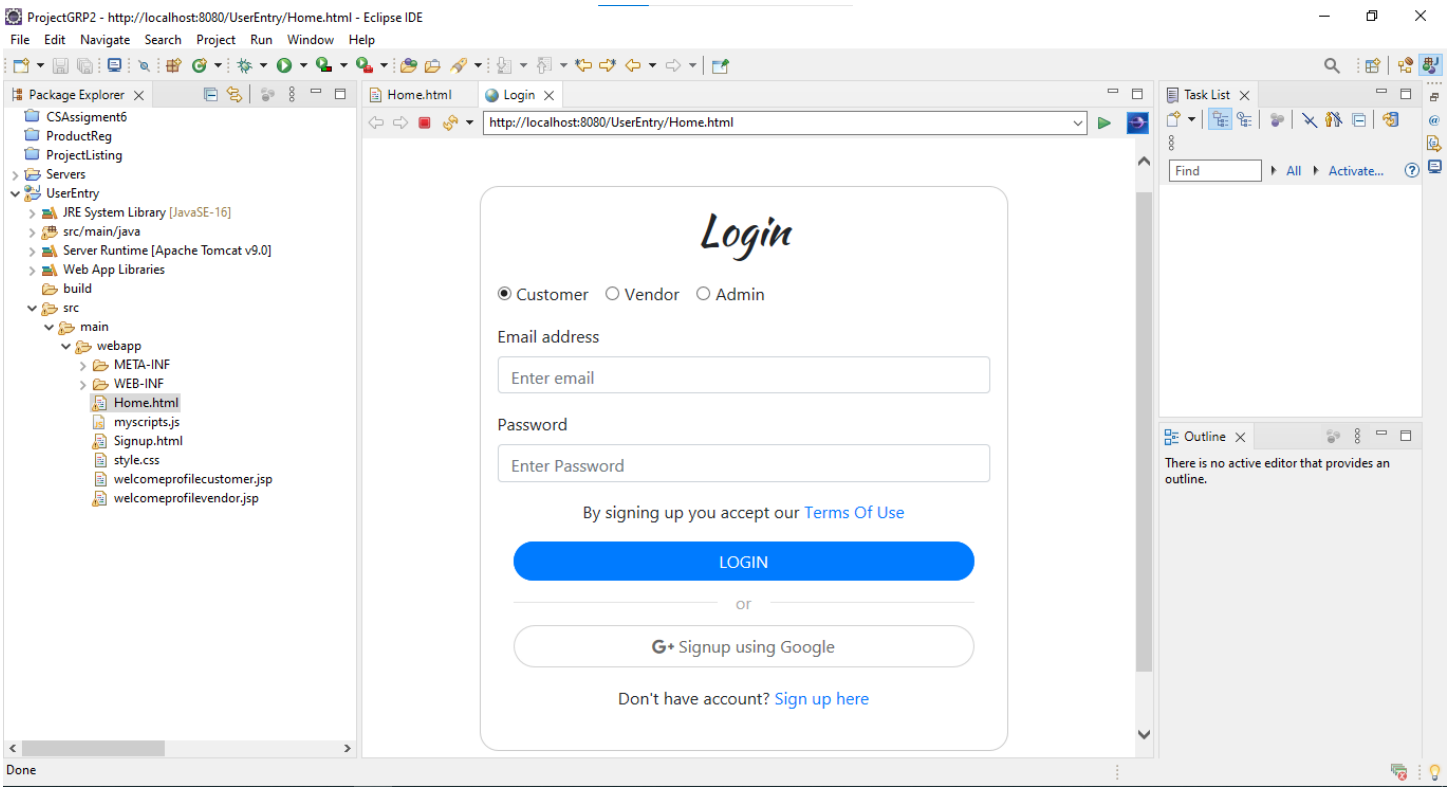
: Creation of user_specific table under user activity database.

User Registration and login Database

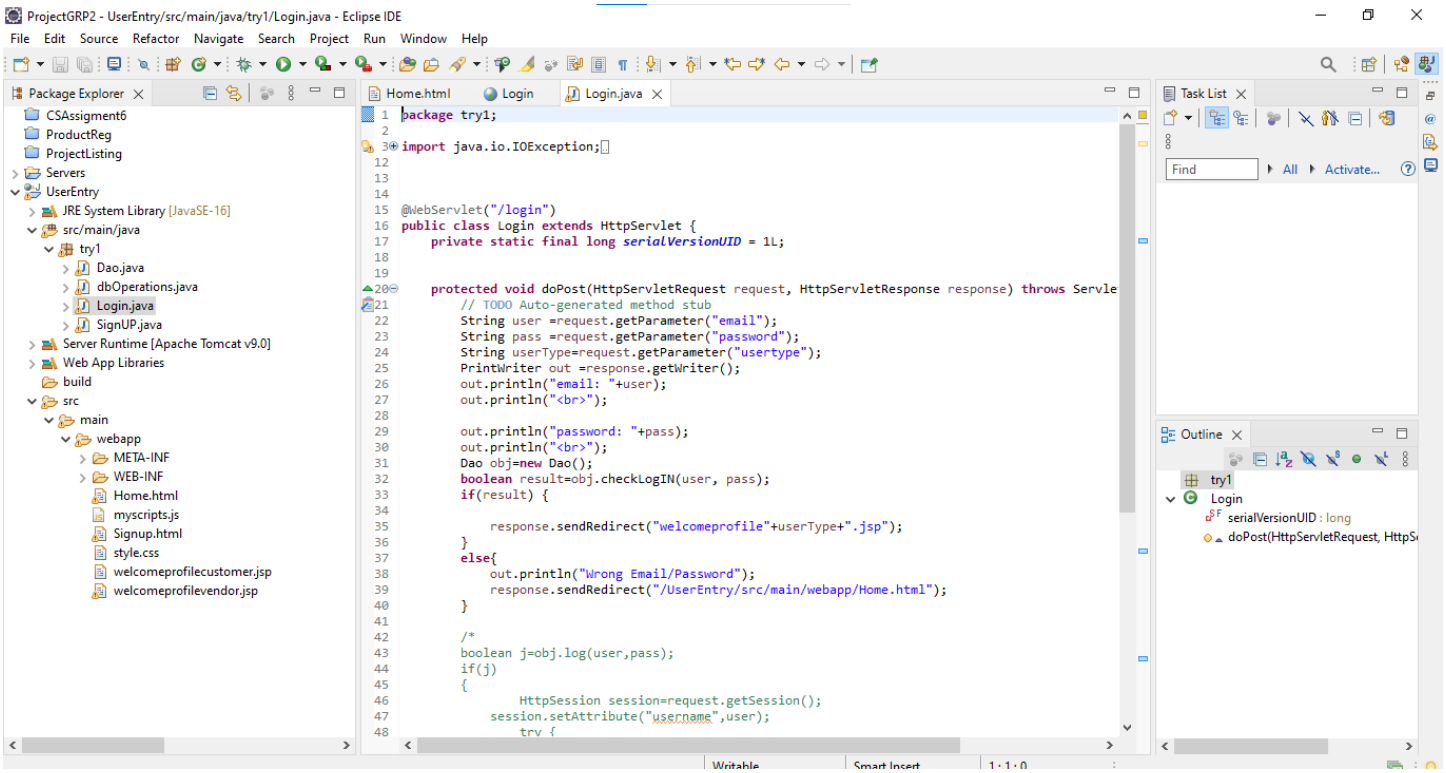


Login Home Page HTML:

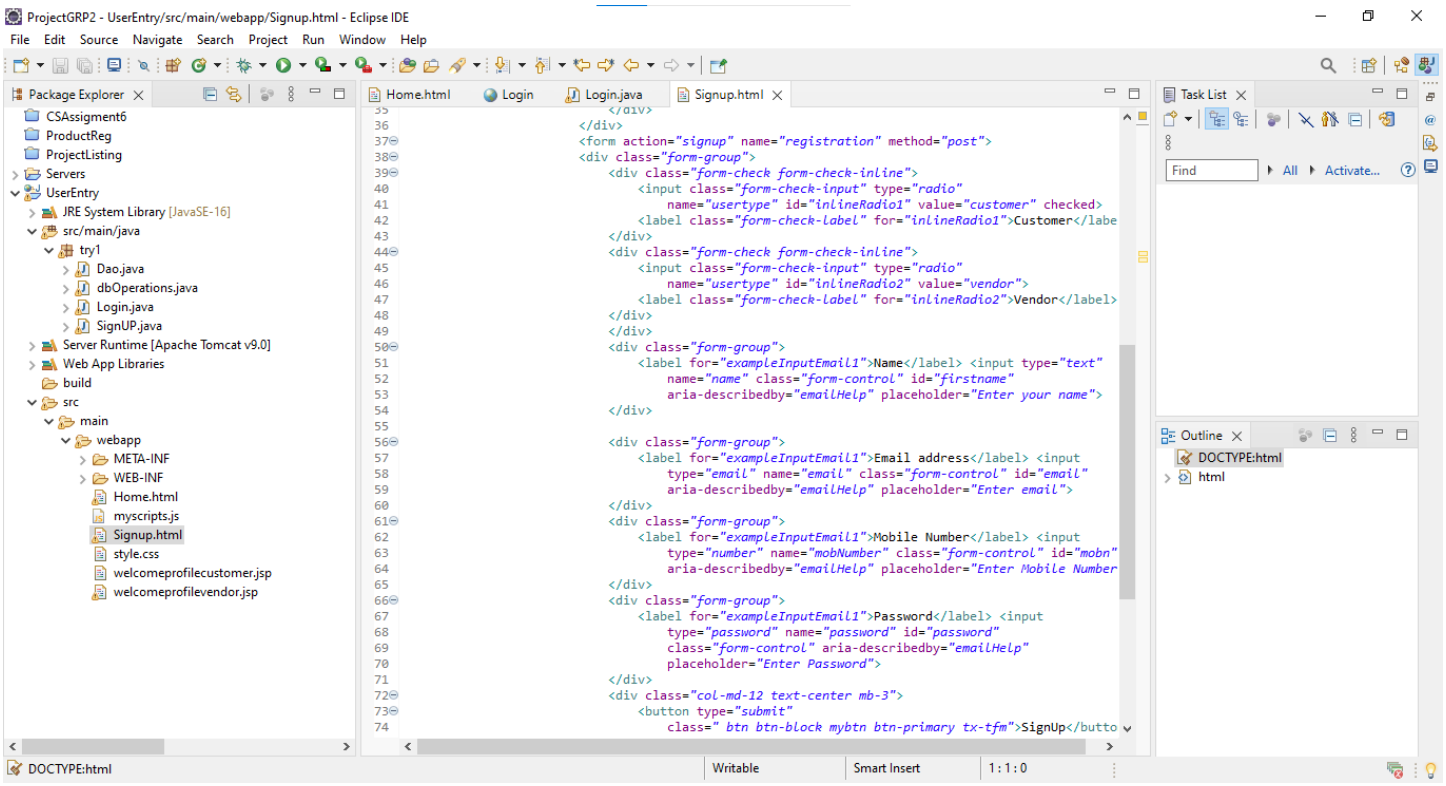


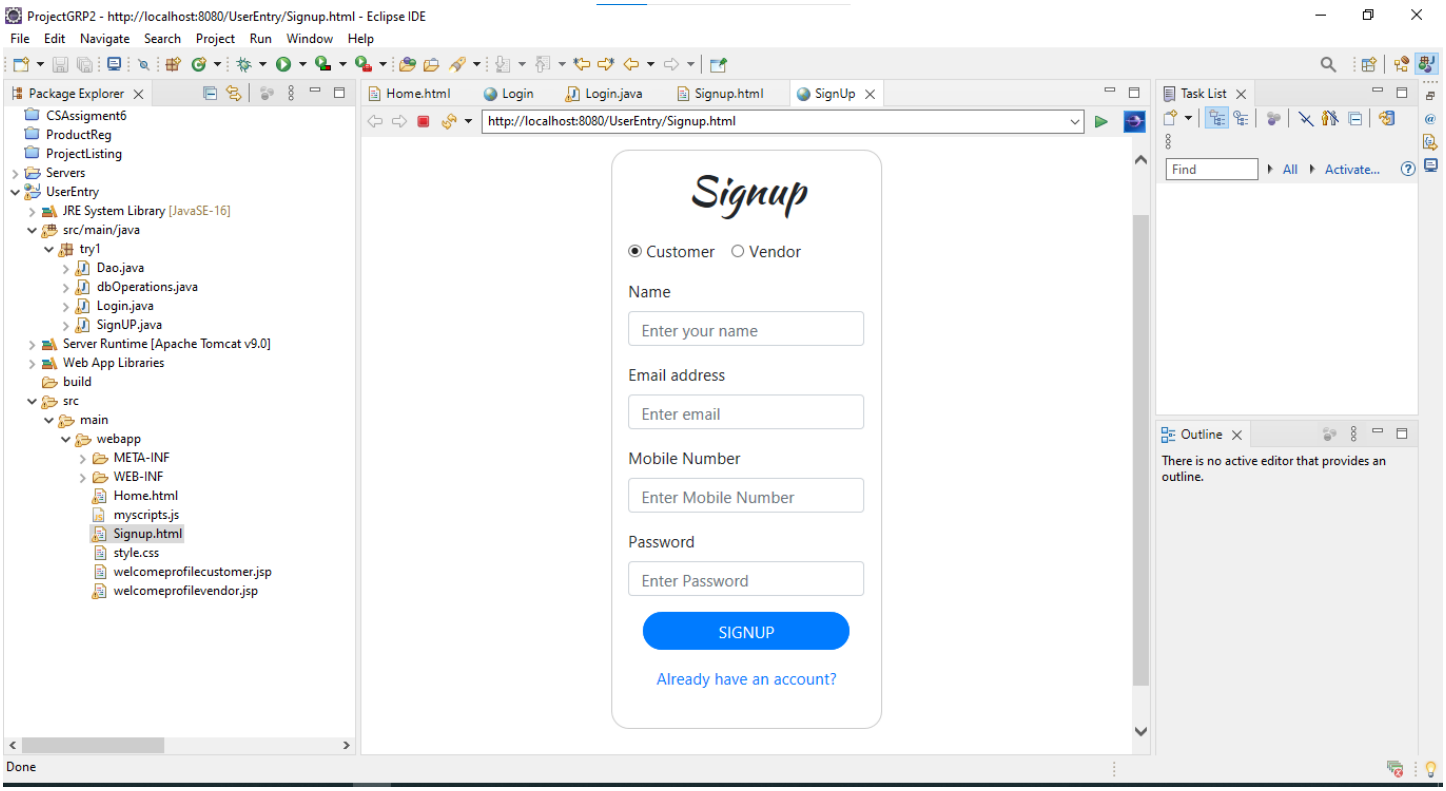


User Verification in backend

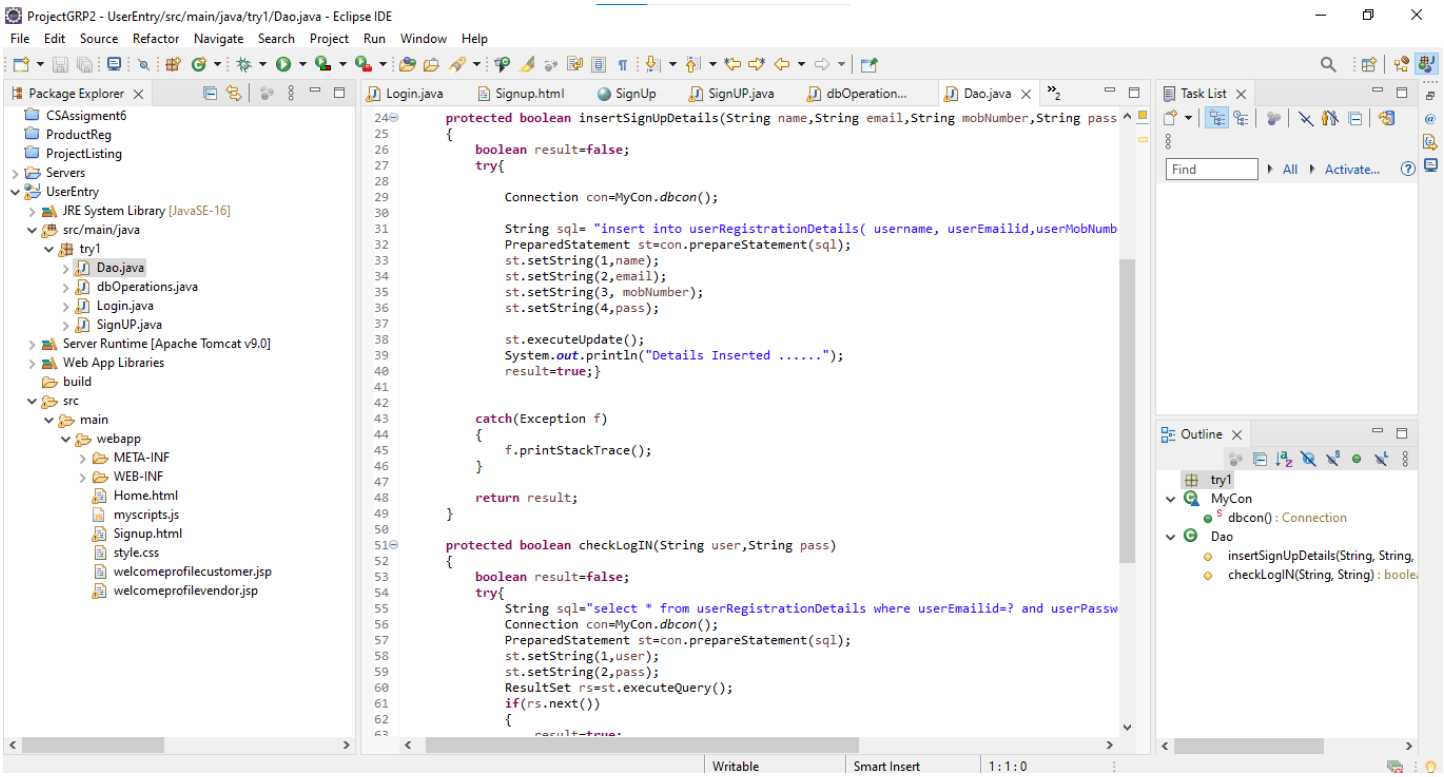


User registration HTML (Signup.html)

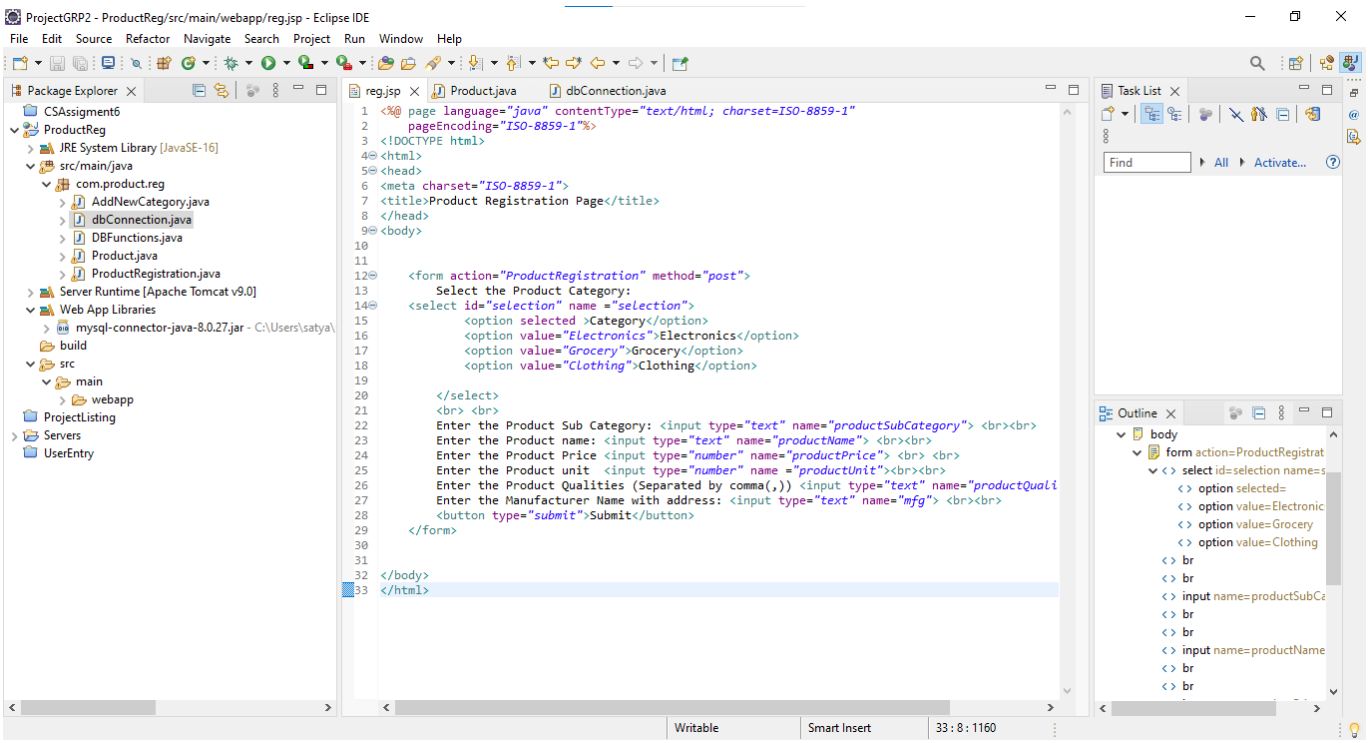


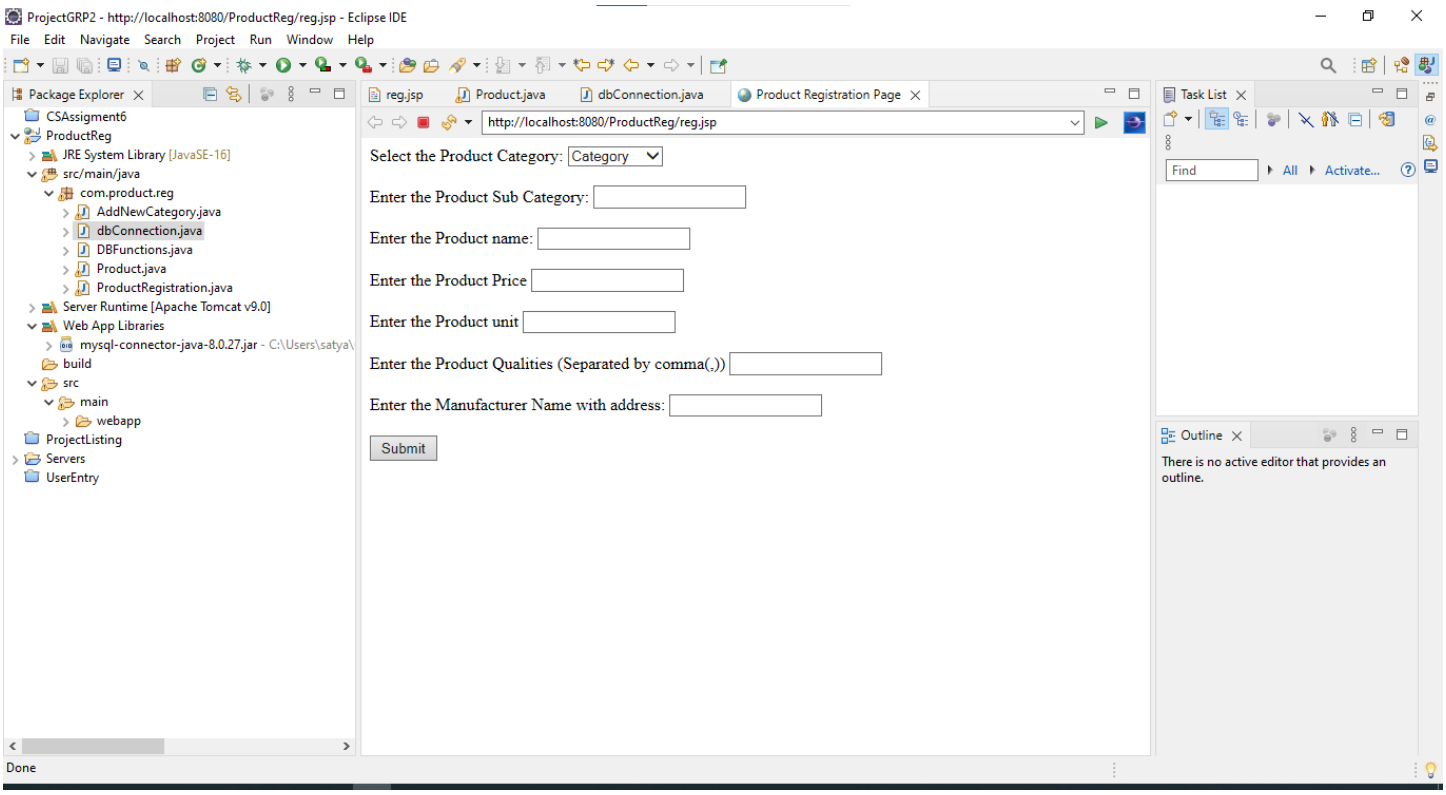


Connecting the signup form with the backend;

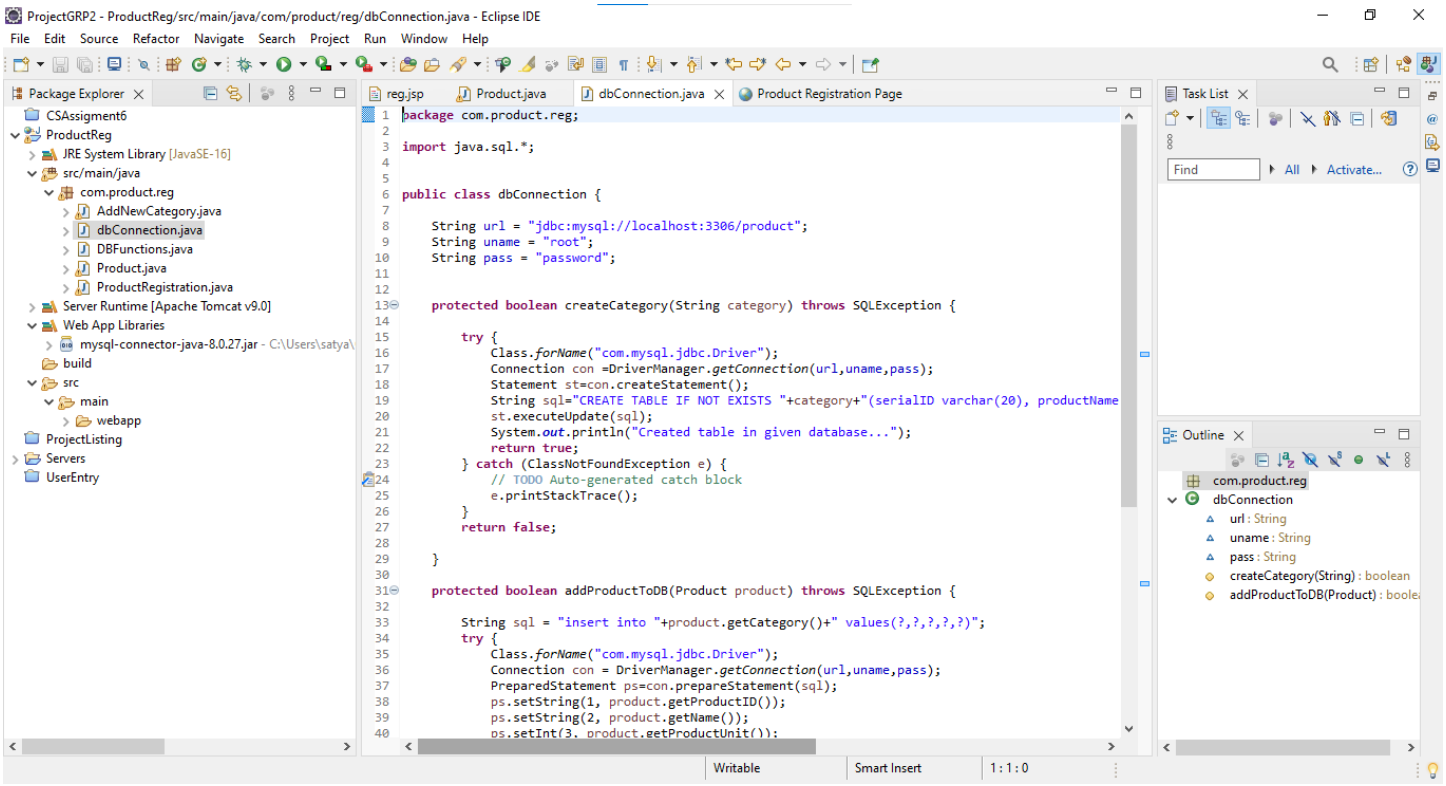


Product Registration Page:





Product Registration Database Connection



Work Needed to be done:

: Beautification of pages

: Creation of view from data obtained by database

: Implementing search methods with filters

: Creating the cart

: Payment Method

: feedback system

_____Thank You_____

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