The User's Manual of EBusinessCar Complex System

Requirement:

The development environment of EBusinessCar includes JDK 21 and NetBeans IDE 23.

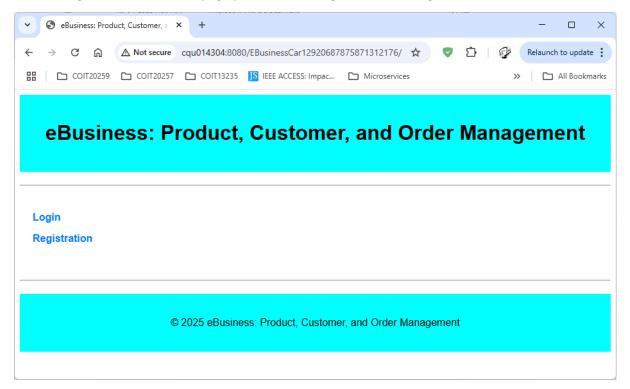
The runtime environment of EBusinessCar includes JRE21, GlassFish Application Server 7.0.9, MySQL Server, Workbench, and Connector/J 8.0.29 or a higher version.

The setting of database connections includes:

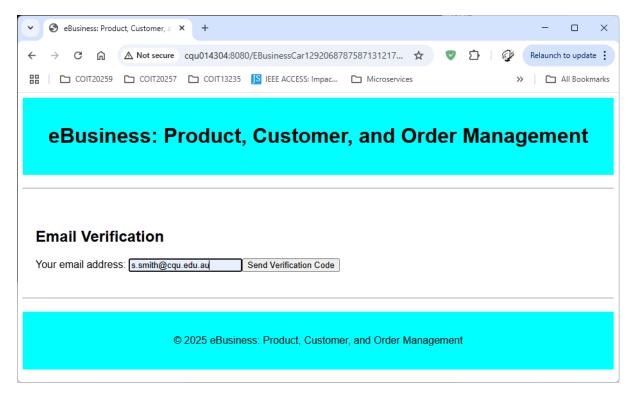
- Creating the "aicardb" database schema in MySQL server
- Creating the JDBC data source "jdbc/AlCarDS" in GlassFish
- Creating the JDBC connection pool "AlCarPool" with an URL connecting to MySQL database schema "aicardb" in GlassFish
- Mapping the JDBC data source "jdbc/AlCarDS" to the JDBC connection pool "AlCarPool" in GlassFish

Running EBusinessCar

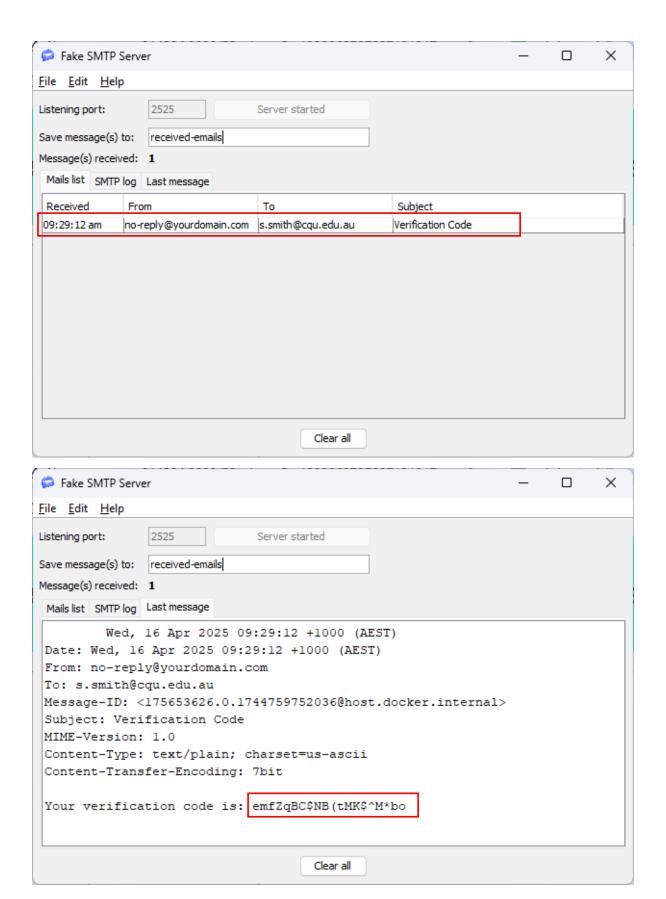
1. User registration. The index page provides user registration and login functions.



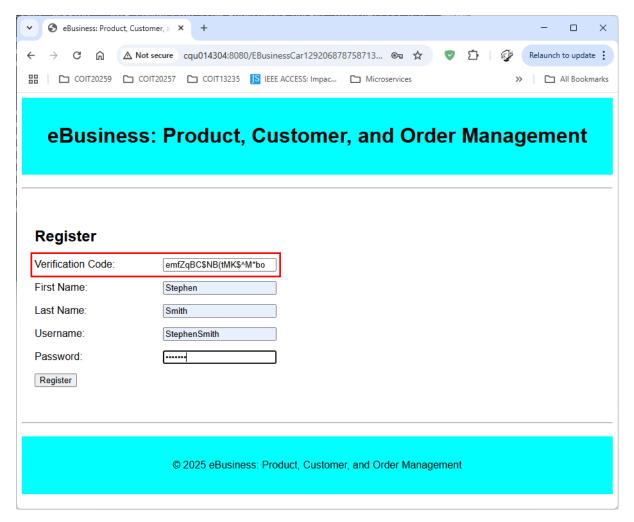
To register to the system, a user (e.g., Stephen Smith) must have a valid email address.



The system will send a verification code to the user's email address. To avoid potential issues of violating terms and conditions of a commercial email server such as Gmail, the system can contact a fake SMTP server called CentreMail for demonstration to send an email (a verification code) to the user. The fake SMTP server can be downloaded at http://nilhcem.com/FakeSMTP/download.html.



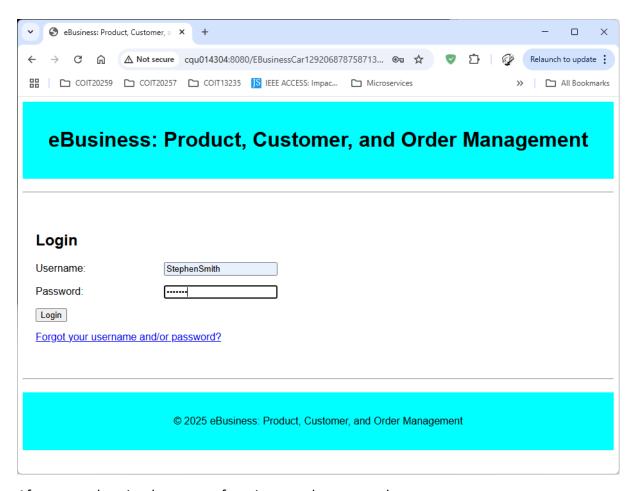
The user needs to use the verification code to complete the registration.



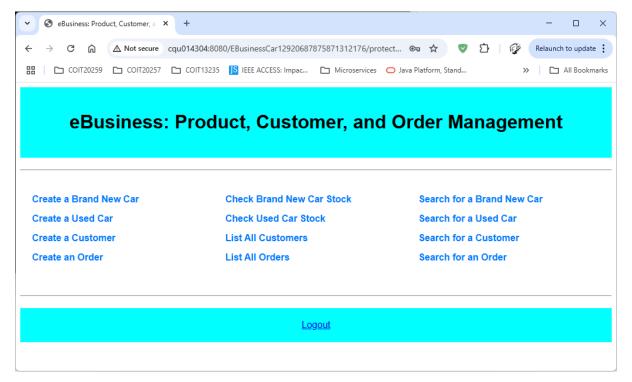
The registered user is saved in the database. The password has been hashed (512 bits)



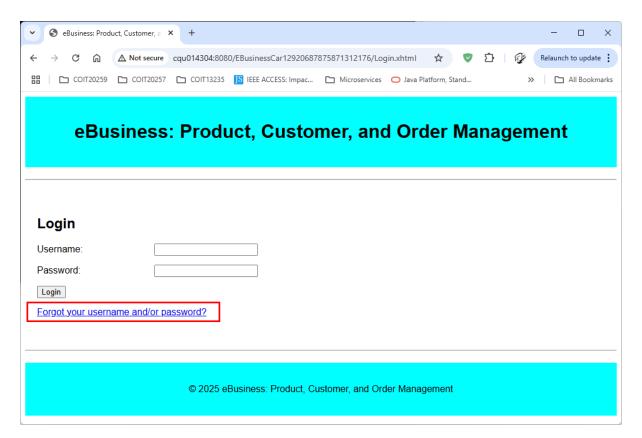
2. User login: a registered user needs to login the system, then the user can access the full functions of the system.



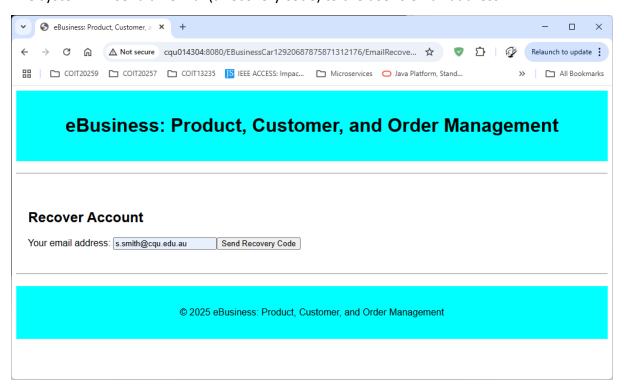
After a user logs in, the system functions can be accessed.

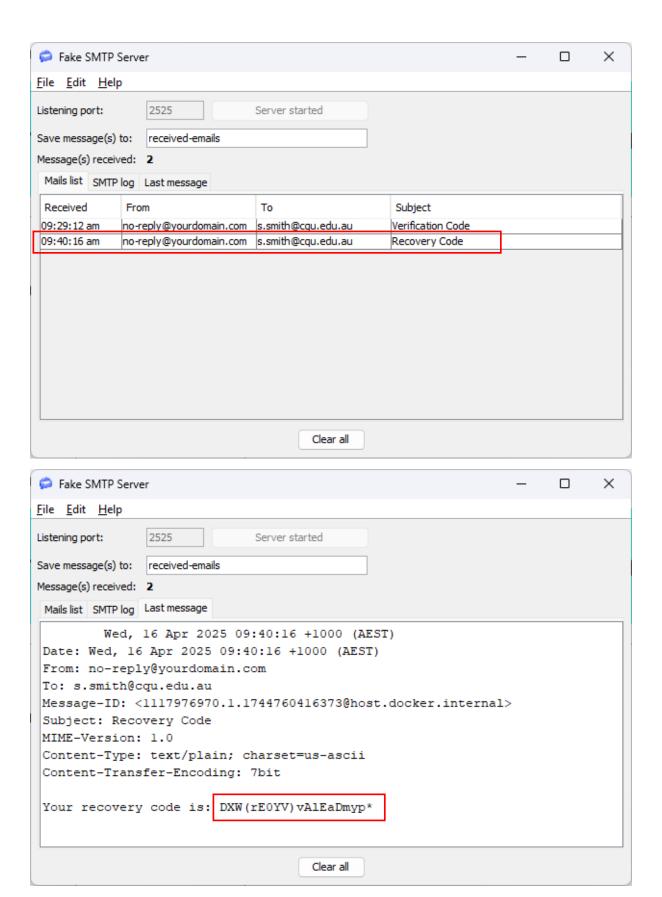


3. Account recovery: when a user forgets username or password, the user can recover his/her account by his/her email.

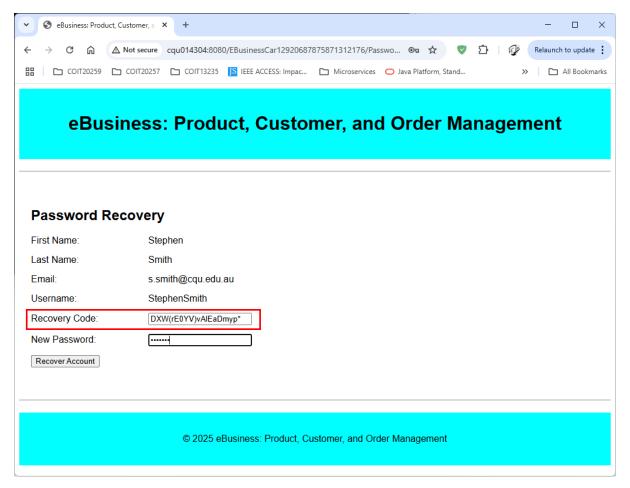


The system will send an emial (a recovery code) to the user's email address.

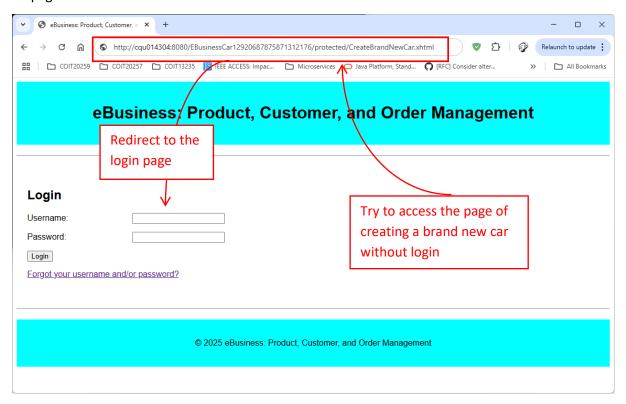




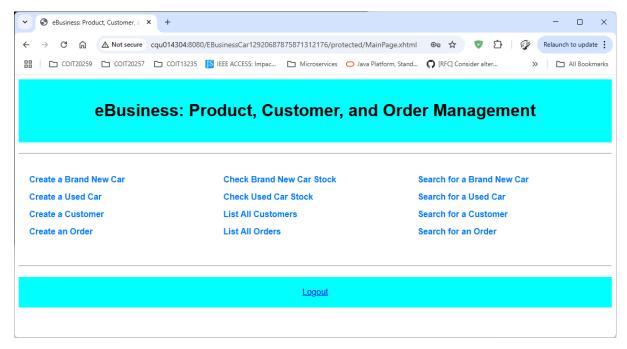
The user needs to use the recovery code to retrieve his/her username and reset his/her password.



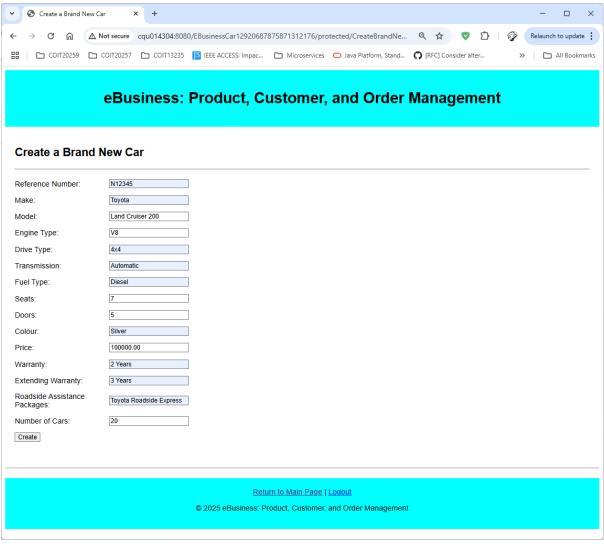
4. Any attempts to access a function page of the system without login will be redirected to the login page

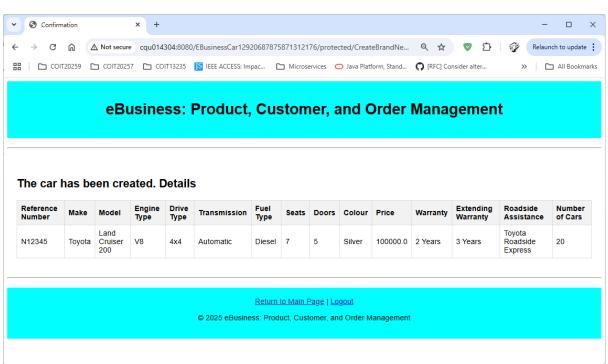


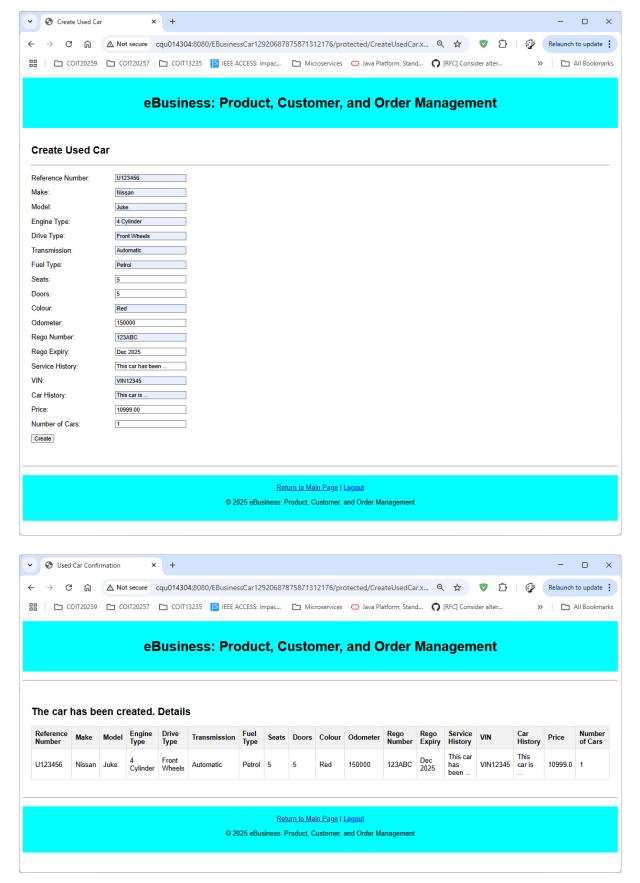
5. The main Jakarta page of the e-business system: the following functions can be accessed by a logged in user.



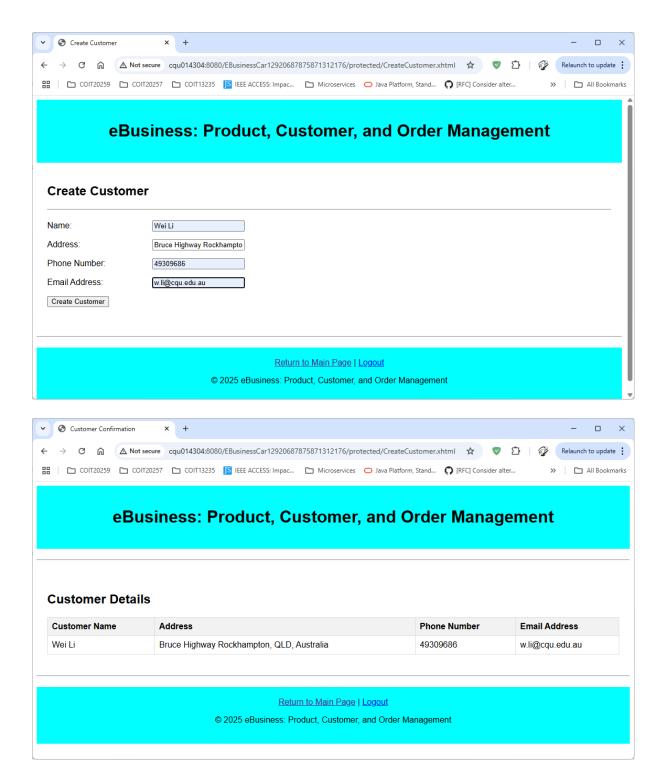
6. Create a brand-new car or a used car



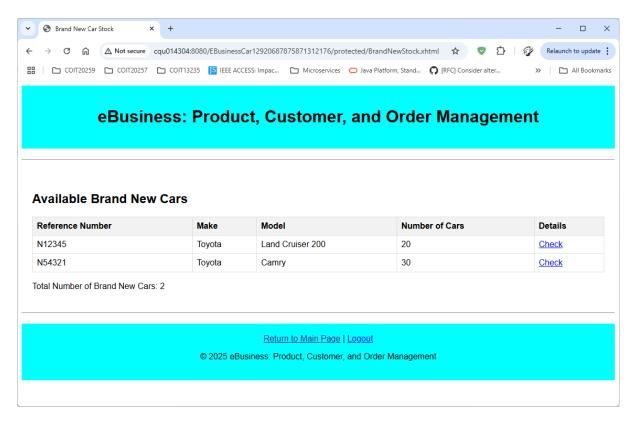


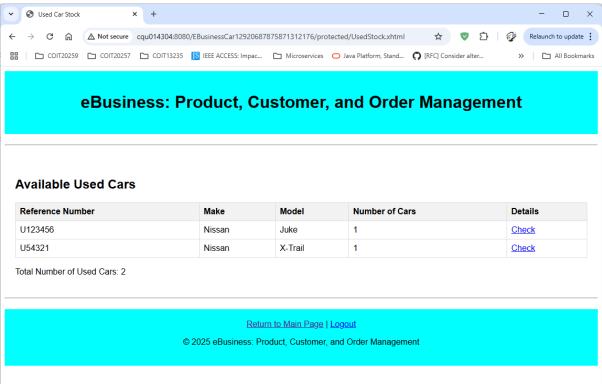


7. Create a customer

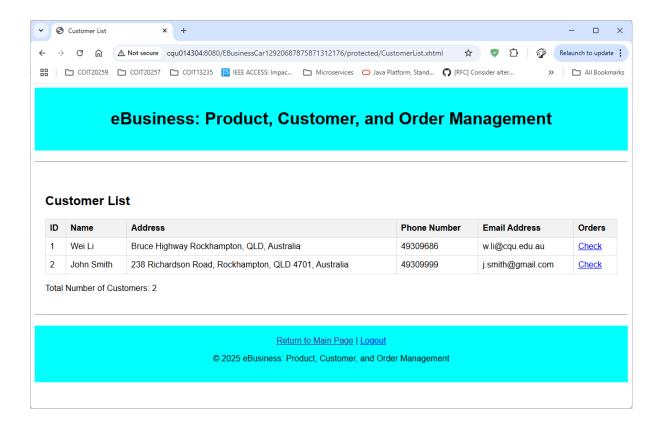


8. Check the brand-new car or used car stocks

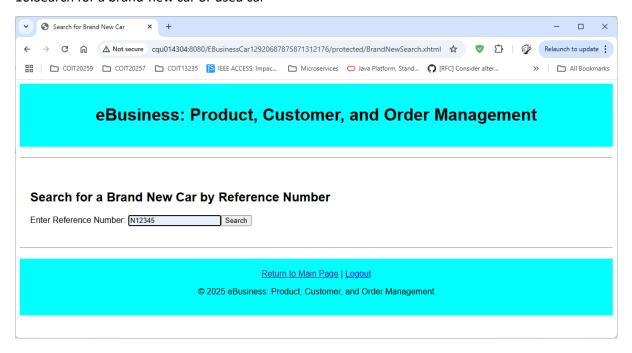


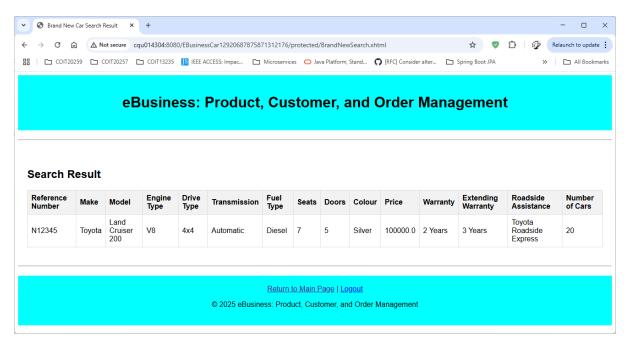


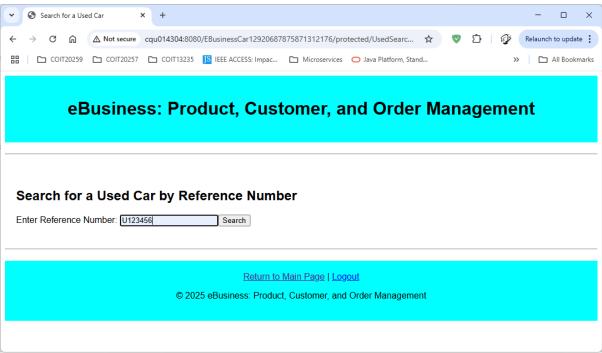
9. List customers

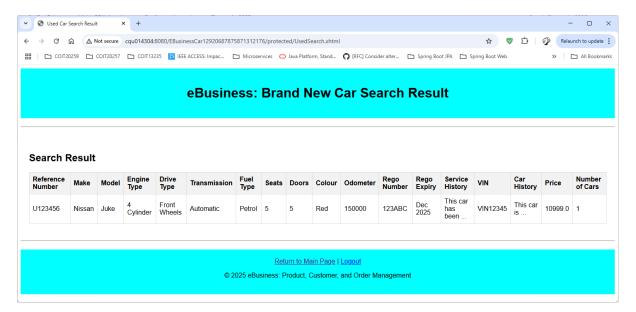


10.Search for a brand-new car or used car

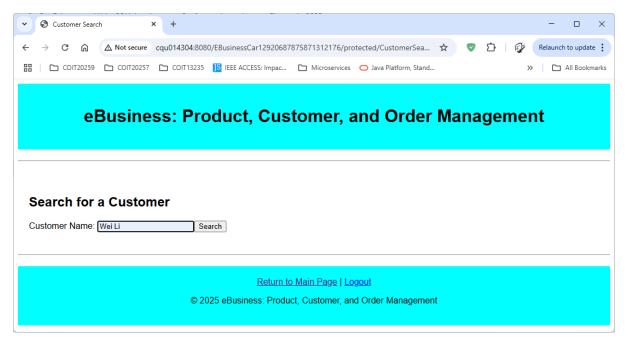


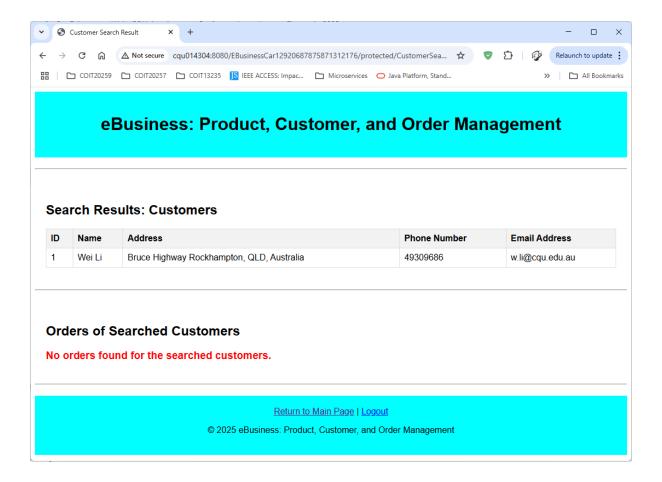






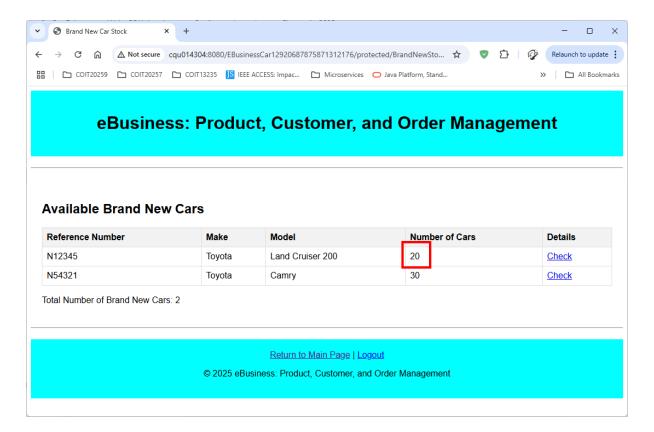
11. Search for a customer



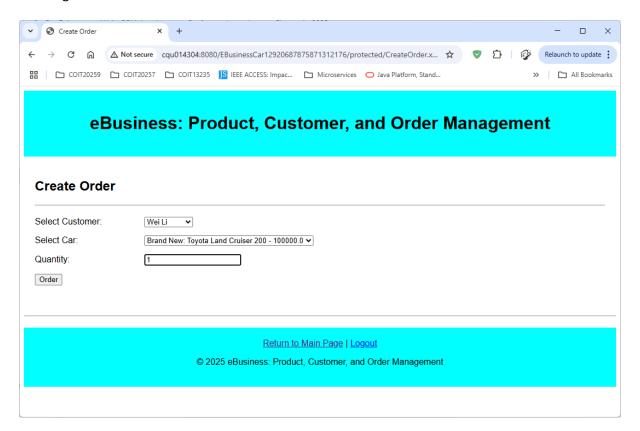


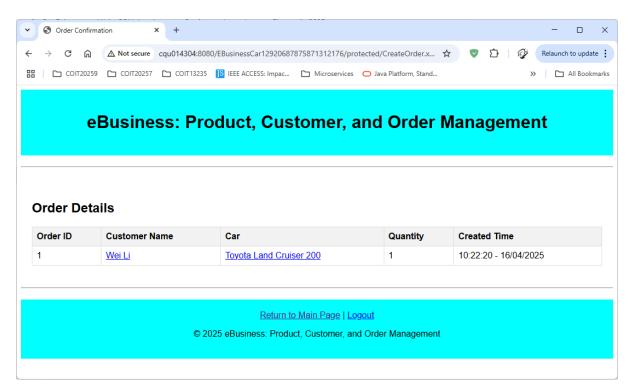
12.Create an order

Note: before creating an order for the brand-new car *Land Cruiser 200*, the number of cars in stock is 20.

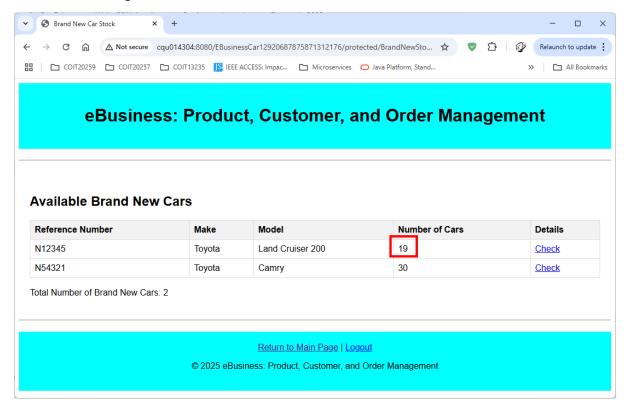


Creating an order for the brand-new car

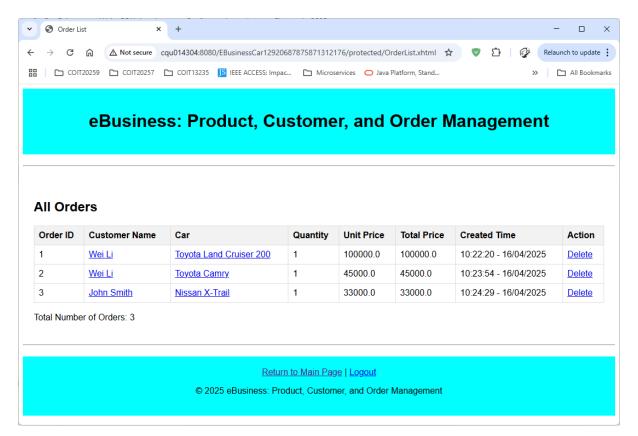




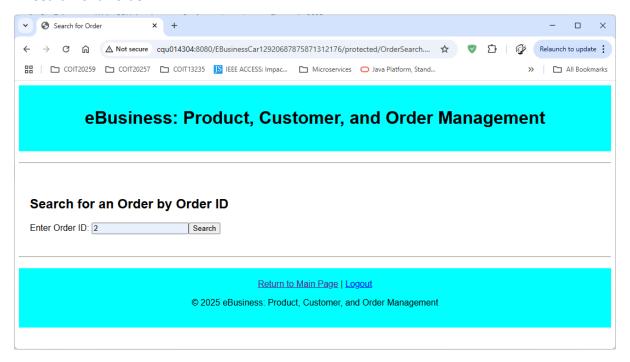
Note: after creating the order, the number of cars in stock is 19.

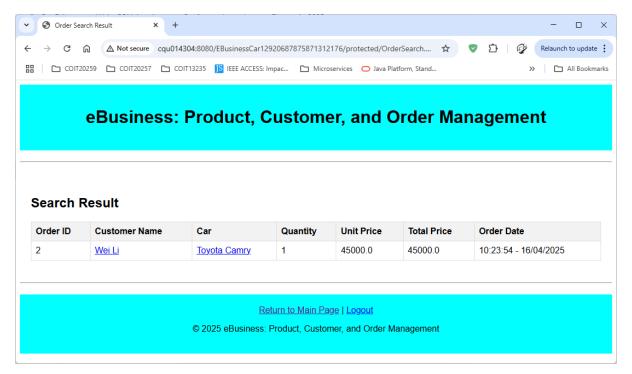


13.List of car orders



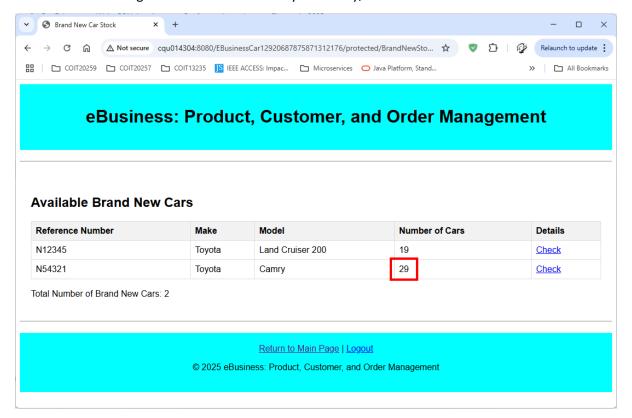
14. Search for an order



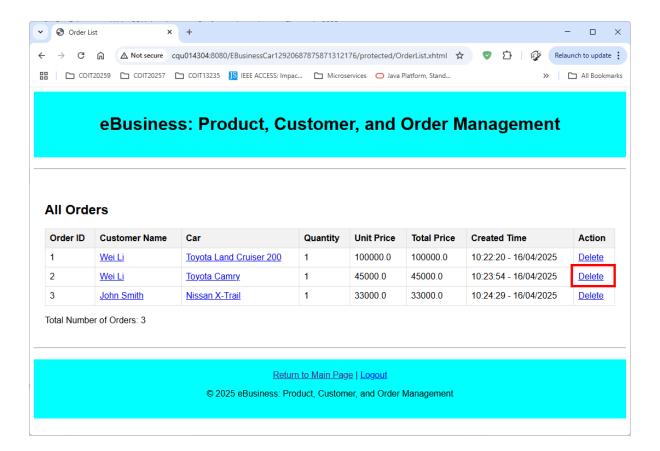


15.Delete an order

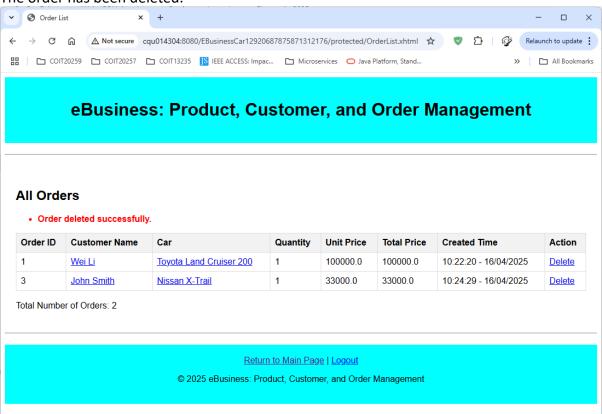
Note: before deleting the order of new car: Toyota Camry, the number of cars in stock is 29.



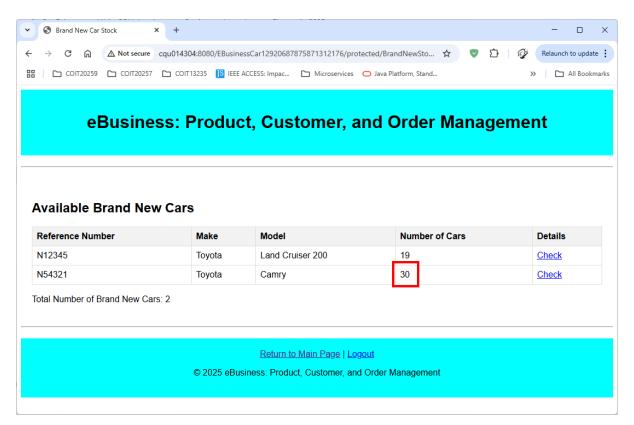
Clicking the Delete link to delete the order of Camry (Order # 2)



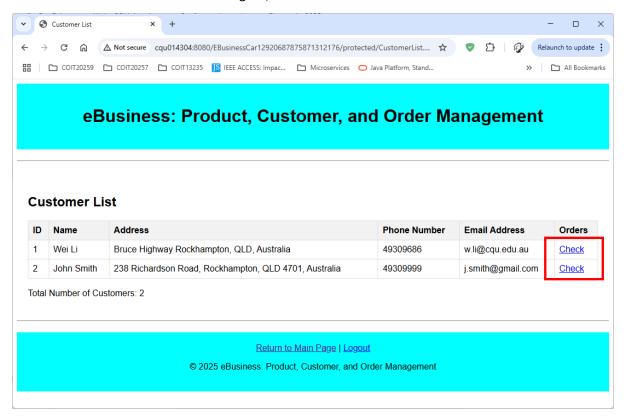
The order has been deleted.



Note: after deleting the order, the number of new cars Camry in stock of is 30.



16. Check a customer's details including his/her orders



Clicking the Check link

