CPS510 – Assignment 9

Restaurant Reservation and Ordering Database System

Section 01 - Group 6

Monday, November 17th, 2025

It is important to note that the following commands are required to run the UI to connect to the Oracle Database.

```
C:\Users\alwin\Documents\GitHub\cps510>javac -cp .;ojdbc8-21.11.0.0.jar A9Gui.java

C:\Users\alwin\Documents\GitHub\cps510>java -cp .;ojdbc8-21.11.0.0.jar A9Gui
```

This application is a full interface for the restaurant reservation and ordering DBMS. To start the application, first connect it to the Oracle Database using the two previous commands, then the user is required to input their username and password on the login window. It requires the localhost(Oracle database login) login info. Once the login is complete, the main application connects to the localhost:1521/XEPDB1 (user-dependent). If an invalid login is input, an error message will be displayed. After a successful login, the system will load the interface into the window, which will contain a customer management panel and a scrollable console that displays the results of all the operations.

Alongside the Top of the UI panel, there are controls based on several user functions. The “Drop Tables” button removes all the views and tables based on the descending order of dependency, which is safe, and it allows the user to reset the system entirely. Create Tables rebuilds the schema from the beginning by recreating all of the tables, constraints, and views based on our SQL program. Populate Tables is what inserts the table with “dummy data,” which includes all the information that the tables are displaying. Query Tables runs all of the SELECT statements across the views: menu_summary_view, reservation_detail_view, and online_order_view. Then, the formatted results are sent to the output. The user is then able to rebuild and repopulate the tables based on changes made.

Under the button menu is where you can search for a customer using their customer ID, and by hitting the “Search Customer” button. If the record exists, these fields are automatically filled for editing. The user may update their information and click “Update Customer”, or the user can delete by clicking the “Delete Customer” button. All the operations use prepared statements, making sure accurate updates happen and appear in the output area. When the user’s session is done, the user can click “Exit” to close the database connection and exit the application. Altogether, all the features work hand in hand to offer a user friendly environment to demonstrate our Assignment 9 database system.