

Project Distributed Programming –Semester GENAP 2021/2022

EzBooking is a company that aims to offer convenient booking mechanism for services such as events, public transportation tickets, hotels, etc. Currently the company plans to expand their business in the field of restaurant reservation. Your task is to create a Java Application for restaurant reservation.

The following are the features that must be supported by the created application:

1. Application Infrastructure

The created application uses Client-Server infrastructure. The server application runs on the server machine and handles all transactions sent from the client applications. The server application should be able to handle multiple client applications. All transactions **must be processed** on the server application. There are **several types of client application** that must be provided based on its functionality: (1) the client application for partnered restaurant, (2) the client application for customers, and (3) the client application for EzBooking's Administrator.

The application for partnered restaurant is created to manage all booking created by the customers and to create various reports. The client application for customers is used by the customer of EzBooking to book a table in a specific restaurant. The last type of client application is used by the administrator of EzBooking company to manage the data and create various reports regarding the performance of EzBooking service.

Note: To create the client applications, it is advised that your group combines the usage of JAVA GUI, or using web service with JAVA.

2. Restaurants

The created application should support the booking mechanism on various collaborated restaurants. If a restaurant owner would like to collaborate with EzBooking and be listed in the EzBooking application, the restaurant owner must register on the EzBooking application first. The minimal required information to register a restaurant is the restaurant owner's name, restaurant name, the restaurant's username for EzBooking application, the number of available tables in the restaurant.

3. Booking Mechanism

A customer (end-user) utilizes the EzBooking's client application to make a reservation in a specific restaurant. In order to make a reservation, the client must login first into the EzBooking client application using his/her corresponding username. Then, the customer chooses a restaurant that he/she would like to book from the list available of available restaurant. After choosing the restaurant, the customer must input the booking date and the number of people into the client application. The client application sends the booking data inputted by the user to the server, and the server will process the user's reservation. The user's reservation will be stored in the database if the reserved restaurant has available seats on the user's selected date. Once a booking is confirmed by the system, the server will send a notification to both the client applications of user and restaurant.

4. [Additional Option] Pre-Ordering a Course Meal Upon Booking

Upon creating a new reservation, some restaurant could also provide additional service to its user by offering an option for its user to pre-order full course meals from the available menu offered by the corresponding restaurant.

Note: This is an additional option that can be implemented in your project for extra score.

5. [Extra points] additional features that could enhance the capabilities of Restaurant Booking service offered by EzBooking.

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