

Class Design Documentation

1. Package: /ws/local/Database

- DatabaseConnector: Includes all the following operations to the database:
 - Create the table Account, Restaurant, Menu
 - Update the row in Menu
 - Delete the row in Menu
 - Read all the rows in table Restaurant
 - Read all the rows in table Menu with specific restaurant

All the activities will interact with the DatabaseConnector to fetch the data out for displaying to the user or save the user input into the database.

2. Package: Entities

- Seller: Includes all the getter and setter method regarding the seller information
- Buyer: Includes all the getter and setter method regarding the buyer information
- BuyerLogin: Interface with the access to buyer email and password, which will be used by the LoginActivity.
- SellerLogin: Interface with the access to seller email and password, which will be used by the LoginActivity.
- SellerRest: Interface with the access to the seller restaurant information, like the restaurant name and password, etc. This will be used by CreateRestaurant to deal add the restaurant item.
- SellerMenu: Interface with the access to the seller menu information, like the dish name and the price. This will be used by CreateMenu, DeleteMenu and UpdateMenu.

3. Package: UI

3.1. Login UI

After entering the account and the password, the user has four options.

- Buyer Login: User will be redirected to the list of the restaurants.
- Seller Login: User will be redirected to the homepage of his own restaurant.
- Create as Buyer: User will be redirected to the list of the restaurants and the information of this buyer will be saved to the database.
- Create as Seller: User will be redirected to the homepage of his own restaurant and the information of this seller will be saved to the database.

3.2. Buyer UI

3.2.1 Main Page for Buyer

After the buyer log in the system, he/she will see this page. He can choose to Order new dishes or track the status of the orders. The system will jump to the corresponding next page.

3.2.2 Choose Restaurant

If the buyer has chosen this page, he/she will firstly see his/her location. Then, he/she can see a list of nearby restaurants. The buyer then can choose a restaurant and then move to the next step to look at the menu by clicking the “see the menu” button.

There is also an alternative path for the user to exit to the main page (clicking the select button), if he/she wants to quit or change another restaurant.

3.2.3 Order Dishes

After choosing the restaurant, the buyer can see the menu in this page. He/she can select the dishes. After selecting the dishes, the buyer can submit the menu. There is also an alternative path for the user to exit to the main page (clicking the select button), if he/she wants to quit or change another restaurant.

3.2.4 Order Results

In this page, the user can see the order detail, the he/she can click the “return to the main page” button to return to the main page.

3.2.5 Order Status

In this page, the user can see the orders’ status, the he/she can click the “return to the main page” button to return to the main page.

3.3. Seller UI

3.3.1 Main Page for Seller

After a seller log into the system, he will see this page, and then he could choose specific options, i.e., create resraurant, create menu, update menu, delete menu, update order status. And system would jump to the corresponding next page.

3.3.2 Create Restaurant Page

After seller clicks the “Create Restaurant” button, then system would jump to this page, and let the seller create information for a new restaurant. As you could see, seller need to fill in the following information, including name, address and category of this restaurant. Then seller could choose the “Submit button”, then the information will be stored in the database. Or seller could also choose the “Cancel” button, then system would jump to the Main Page for Seller page.

3.3.3 Create Menu Page

After seller clicks the “Create Menu” button, then system would jump to this page, and let the seller create menu for the existing restaurant. As you could see, seller need to fill in the following information, including name, introduction and price of this dish. Then seller could choose the “Submit button”, then the information will be stored in the database. Or seller could also choose the “Cancel” button, then system would jump to the Main Page for Seller page.

3.3.4 Update Menu List Page

After seller clicks the “Update Menu” button, then system would jump to this page, and let the seller update menu. As you could see, seller need to choose from the existing menus that he/she created before. Then seller could check one of the checkbox besides the corresponding dish, and click the “Submit button”, then system would jump to the Update Menu page for the seller to update the information. Or seller could also choose the “Cancel” button, then system would jump to the Main Page for Seller page.

3.3.5 Update Menu Page

After seller chooses one menu that he/she wants to update in the Update Menu List Page and clicks the “Submit” button, then system would jump to this page, and let the seller update information for the existing menu. As you could see, seller need to fill in the following information, including name, introduction and price of this dish. Then seller could choose the “Submit button”, then the information will be updated in the database. Or seller could also choose the “Cancel” button, then system would jump to the Main Page for Seller page.

3.3.6 Delete Menu Page

After seller clicks the “Delete Menu” button, then system would jump to this page, and let the seller delete one or more menus. As you could see, seller need to choose from the existing menus that he/she created before. Then seller could check one or more checkboxes besides the corresponding dish, and click the “Submit button”, then system would delete corresponding

information in the database. Or seller could also choose the “Cancel” button, then system would jump to the Main Page for Seller page.

3.3.7 Update Menu Status Page

After seller clicks the “Update Menu Status” button, then system would jump to this page, and seller could update menu’s status, i.e. to change its status to “Ready”, and send information to buyer. As you could see, seller need to choose from the existing orders. Then seller could check one checkbox besides the corresponding order, and click the “Submit button”, then system would update the corresponding order’s status to be “Ready”. Or seller could also choose the “Cancel” button, then system would jump to the Main Page for Seller page.

4. Package: Model

- MenuInfo: This class is the information of a menu, including name, introduction and price

5. Package: Exception

- AccountAlreadyExistException: when user register for new account, if account already exists, then throw this exception
- AccountNotFoundException: when user logs in to the system, if the account that user fills does not exist, then throw this exception
- ExceptionHandler: this is used for fixing corresponding exceptions

6. Package: backgroundService

- backgroundService: this class will be used to detect changes of the orders and push notification if necessary in the future.