E-commerce App Manual

1.Running App

1.1. Dependencies

- Latest Java Development Kit (JDK).

1.2. Running

To run this app, open `src/Main.java`, build and run it (either via IDE's build method or `javac` command).

2.Menu

2.1. Main Menu

The main menu is used for logging in or registering into E-commerce apps.

```
Main Menu:
1. Login
2. Register
3. Quit
Enter your choice:
```

Commands:
- Login: used to log into the app. Methods used: IOInterface's getUserInput() and printErrorMessage(); UserOperation's login().
- Register: used to register an account. Methods used: IOInterface's getUserInput(), printMessage() and printErrorMessages(); CustomerOperation's registerCustomer().
- Quit: Exit the app.

Invalid operation example:

```
Main Menu:
1. Login
2. Register
3. Quit
Enter your choice: 2
Enter username, password, email, mobile: John John123 john123@gmail.com 0312345678
DEBUG: Invalid username: John

ERROR [Registration]: Failed to register. Check your input.

Main Menu:
1. Login
2. Register
3. Quit
Enter your choice: 1
Enter username and password: John Join123

ERROR [Login]: Invalid username or password

Main Menu:
1. Login
2. Register
3. Quit
Enter your choice: 4

ERROR [Main Menu]: Invalid choice

Main Menu:
1. Login
2. Register
3. Quit
Enter your choice:
```

2.2. Customer Menu

The customer menu is used for customer-related operations, such as profile, products, history orders, and consumption figures.

```
Customer Menu:
1. Show profile
2. Update profile
3. Show products (use '3 keyword' to search)
4. Show history orders
5. Generate all consumption figures
6. Logout
Enter your choice: ▌
```

Commands:
- Show profile: show information about your account in JSON format. Methods used: IOInterface's printObject().
- Update profile: used to change account's information. Methods used: IOInterface's getUserInput(), printMessage() and printErrorMessage(); CustomerOperation's updateProfile().
- Show products: show user-purchased products' information. Methods used: ProductOperation's getProductListbyKeyword() and getProductList(); IOInterface's showList(); ProductListResult's getProducts(), getCurrentPage(), and getTotalPages().
- Show history orders: show purchase history. Methods used: OrderOperation's getAllOrders(); OrderListResult's getOrders(), getCurrentPage(), and getTotalPages().
- Generate all consumption figures: generate a chart showing consumption data. Methods used: OrderOperation's generateSingleCustomerConsumptionFigure(); IOInterface's printMessage().
- Logout: log out of your account.

Profile update failure example:

```
Customer Menu:
1. Show profile
2. Update profile
3. Show products (use '3 keyword' to search)
4. Show history orders
5. Generate all consumption figures
6. Logout
Enter your choice: 2
Enter attribute (username/password/email/mobile) and new value: usernane newuser

ERROR [Update Profile]: Failed to update profile. Check your input.

Customer Menu:
1. Show profile
2. Update profile
3. Show products (use '3 keyword' to search)
4. Show history orders
5. Generate all consumption figures
6. Logout
Enter your choice: ▌
```

2.2. Admin Menu

The admin menu is used for admin-related operations, such as products, customers, orders, data, and statistical figures.

```
Admin Menu:
1. Show products
2. Add customers
3. Show customers
4. Show orders
5. Generate test data
6. Generate all statistical figures
7. Delete all data
8. Logout
Enter your choice: ▌
```

Commands:
- Show products: show available products in JSON format. Methods used: ProductOperation's getProductList(); IOInterface's showList(); ProductListResult's getProducts(), getCurrentPage() and getTotalPages().
- Add customers: add a customer. Methods used: IOInterface's getUserInput(), printMessage() and printErrorMessage(); CustomerOperation's registerCustomer().

- Show customers: show a list of customers in JSON format. Methods used: CustomerOperation's getCustomerList(); IOInterface's showList(); CustomerListResult's getCustomers(), getCurrentPage(), and getTotalPages().
- Show orders: show orders which customers have booked in JSON format. Methods used: AdminOperation's showOrders().
- Generate test data: generate test order data. Methods used: AdminOperation's generateTestOrderData(); IOInterface's printMessage().
- Generate all statistical figures: generate charts showing statistical products and customers data. Methods used: ProductOperation's generateCategoryFigure(), generateDiscountFigure(), generateLikesCountFigure(), generateDiscountLikesCountFigure(); OrderOperation's generateAllCustomersConsumptionFigure(), generateAllTop10BestSellersFigure(); IOInterface's printMessage().
- Delete all data: delete all data from the system. Methods used: CustomerOperation's deleteAllCustomers(); ProductOperation's deleteAllProducts(); OrderOperation's deleteAllOrders(); IOInterface's printMessage().
- Logout: log out of the app.

Customer addition failure example:

```
Admin Menu:
1. Show products
2. Add customers
3. Show customers
4. Show orders
5. Generate test data
6. Generate all statistical figures
7. Delete all data
8. Logout
Enter your choice: 2
Enter username, password, email, mobile: johndoe john123 john123@gmail.com 04123456789
DEBUG: Invalid mobile: 04123456789

ERROR [Add Customer]: Failed to add customer. Check your input.

Admin Menu:
1. Show products
2. Add customers
3. Show customers
4. Show orders
5. Generate test data
6. Generate all statistical figures
7. Delete all data
8. Logout
Enter your choice:
```