User Manual

Recommendation: In the PyCharm Run window, uncheck the "soft-swap" option. Otherwise the format of output will be uneasy to read, unless the run window is wide enough.

Password: All the password is "a0000" in the beginning.

After executing the program, the interface will resemble the following:

```
---------Main Menu-------------------------
        (1) Login
        (2) Register
        (3) Quit
Enter your choice:
```

If you choose option 1:

You will be prompted to enter a username and password. Currently, the username and password are set to "admin" and "a0000" respectively. These values are automatically generated and stored in the "users.txt" file when the program starts. After registration or generating test data, you can log in with other user credentials.

If you enter "admin a0000" (case-insensitive) with a whitespace separating them, the interface will appear as follows:

```
---------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) Delete customer using customer id
        (9) Logout
Please enter your choice:
```

If you select options 1, 3, or 4 before choosing option 5, the output will be an empty list because there is currently no data available in the database. Therefore, I recommend selecting option 5 first to populate the database with data before proceeding with options 1, 3, or 4.

If you choose option 5:

After a few seconds, the program will generate data for products, users, and orders. Once the data is generated, you will have access to other options and functionalities provided by the program.

If you choose option 1:

Please enter a page number between 1 and the total number of pages for the products. If you enter any other input, an error message will be displayed, and you will be returned to the admin menu.

If you choose option 2:

You will be prompted to enter the following information one by one: name, password, email, and mobile number.

The name should only contain letters or underscores, and its length should be at least 5 characters.

The password should contain at least one letter (this letter can be either uppercase or lowercase) and one number. The length of the password must be greater than or equal to 5 characters.

An email address consists of four parts:
● Username: The part of the email address before the @ symbol.
● @ symbol: Separates the username and domain name.
● Domain name: Refers to the mail server that stores or routes the email.
● Dot (.): Separates a portion of the address from the domain name.

The mobile number should be exactly 10 digits long, consisting only of numbers, and starting with either '04' or '03'.

If the format of input do not match the roles above, an error message will be displayed, and you will be asked to re-enter the information.

If you choose option 3 or 4:

You will be prompted to enter a page number between 1 and the total number of customer pages. If you enter any other input, an error message will be displayed, and you will be returned to the admin menu.

If you choose option 6:

The figures will be generated and stored in the data/figures file after **several minutes**. Please be patient or proceed with other commands.

If you choose option 7:

You will be prompted to choose the document you want to delete. Please input the corresponding number to delete the data in that document.

If you choose option 8:

You will be prompted to enter a customer number, which can be found in the users.txt file.

If you choose option 9:

The main menu will be displayed again.

```
---------Main Menu--------------------------
        (1) Login
        (2) Register
        (3) Quit
Enter your choice:
```

Now you can choose a customer name and password from the users.txt file. The password for all users is set as "a0000". You can modify the password in another interface if needed.

Please note that the username and password should be entered separated by whitespace (case-insensitive).

After logging in as a customer:

```
Please enter your username(>=5 characters)
and password(>=5 characters, alphabet and number contained),separated with whitespace : >? opkma a0000
Welcome opkma!

---------Customer Menu----------------------
        (1) Show profile
        (2) Update profile
        (3) Show products
        (4) Show history orders
        (5) Generate all consumption figures
        (6) Logout
Please enter your choice:
```

If you choose option 1:

The output will be the customer's profile.

If you choose option 2:

You will be prompted to enter the number associated with the attribute you wish to update. After then, enter the new value of the attribute. If the format is invalid, an error message will be displayed, and you will be asked to re-enter the information.

If you choose option 3:

You will be asked to specify your search method: by page or by keyword.

If you select the keyword option, you will be prompted to enter a keyword. Otherwise, please enter a page number.

If you choose option 4:

You will be prompted to enter the page number that you want to check. Then it will show the order details belong to the current customer.

If you choose option 5:

The figures will be generated and stored in the data/figures file after **several minutes**. Please be patient or proceed with other commands.

If you choose option 6:

The main menu will be displayed again.

```
---------Main Menu---------------------------
        (1) Login
        (2) Register
        (3) Quit
Enter your choice:
```

If you choose option2:

If you choose option 2, you will be prompted to enter the following information one by one: name, password, email, and mobile number. Please ensure that your input meets the required format. If the input does not meet the format requirements, an error message will be displayed, and you will be asked to re-enter the information.

If you choose option3:

The program will terminate.