Lab Report for Software Engineering course
Lab 6: Demand Documentation

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3.1 Refined function requirements

3.1.1 Administration access Authorization

1. Any shop assistant must first get authorized administration access of the system before he conducts all the normal routines including signing up, logging in, matching drinks, getting drink descriptions and ordering.

2. Anyone except shop assistants is unauthorized to the administration access.

3. To get the authorized administration access, the shop assistant must do XXXXXX.

3.1.2 Signing up

1. Any shop assistant can use the unique username and password to sign up.

2. The username will be persistently recorded in the user.csv (?) after the shop assistant signs up.

3. The username must start with **starbb_**;

4. The username can consist of **letters**, **numbers** and **underline**, excluding any other symbols;

5. The username should have a length greater than or equal to 8 and less than 50.

6. The password can consist of **letters**, **numbers** and _, excluding any other symbols;

7. The password must consist of all the three types, i.e. **letters**, **numbers** and _, excluding any other symbols;

8. The password should have a length greater than or equal to 8 and less than 100.

3.1.3 Logging in

1. Only if the shop assistant logs in successfully can he do the other normal routines including matching drinks, getting drink descriptions and ordering.

2. The shop assistant will log in successfully if and only if the username and password are matched.

3. The login status will be recorded after the shop assistant logs in successfully.

4. If the shop assistant fails to log in, the system will throw a runtime exception to prompt the failed login.

5. If the shop assistant fails to log in because of wrong password, the system will prompt **Username or password error**;

6. If the shop assistant fails to log in, he will not allowed to conduct any other operations.

3.1.4 Matching drinks

1. The shop assistant can get different drinks considering different cup sizes and different kinds and numbers of ingredients.

3.1.5 Obtaining drink descriptions

1. The shop assistant can obtain and check different descriptions of drinks.

2. The customer can obtain and check different descriptions of drinks.

3.1.6 Order charge calculation

1. The shop assistant can order according to the verbal instructions of the customer.

2. The shop assistant can calculate the order charge including the original price, discount and the total discount charge.

3. The customer can check the order charge including the original price, discount and the total discount charge.

3.1.7 Drinks supported

1. The default drinks include coffee and tea.

2. The default coffee includes Espresso and Cappuccino.

3. The default tea includes GreenTea and RedTea.

4. Different stores can customize their own drinks of local characteristics.

5. Every drink should have attributes of its name, price and description(?).

3.1.8 Ingredients supported

1. The default ingredients include milk, chocolate, cream and sugar.

2. The prices of ingredients can be fixed by the maintenance personnel.

3. Different kinds and numbers of Ingredients can be added .

3.1.9 Cup size supported

1. There are totally three kinds of cup size : large, middle and small.

3.1.10 Discount supported

1. There are three categories of discount strategies in total : Double eleven, Full count and Combination.

2. Combination strategy has four concrete strategies.

3. The concrete strategies can have superposition.

4. Different categories of discount strategies cannot have superposition.

5. Combination 1: Order including both tea and coffee will have 15% discount.

6. Combination 2: 2 cups of Large-cup Espresso will have 20% off discount.

7. Combination 3: Buying three cups of tea will send one for free.

8. Combination 4: Cappuccino second half price.

9. Full count: All drinks full 100 minus 30

10. Double Eleven: All drinks 50% off.

3.1.11 Language switch

1. The system language can be switched to the official language of different countries and regions.

2. The language switch should cover everywhere customers can see and check.

3. The default supported languages are Chinese and English.

3.1.12 Currency switch

1. The currency switch will not consider exchange rate fluctuations.

2. The currency should be switched according to different countries and regions.

3. The default supported currencies are Chinese Yuan, Hong Kong dollar and US dollar.

3.1.13   Price fix

1. The maintenance personnel can fix the prices of all the items.

3.1.14   Configuration and Maintenance

1. The maintenance personnel can configure and maintain all the settings including drinks, ingredients, cup-size, discount, language, currency and price-fixing.

3.1.15   log information supported

1. The system must provide log information for the maintenance personnel.

2. The log information must include records of order errors and successful order cases.

3.2   Detailed description of refined function requirements

3.2.1   Scenario analysis and modeling

3.2.2   Class analysis and modeling

3.2.3   Data Flow analysis and modeling

3.2.4   Behavior analysis and modeling

Chapter 4

Performance Demands

4.1 Massive end user support

4.2 Stability over long period of time

Chapter 5

Appendix

5.1 Demand interview outline

5.1.1 Constraints (5 minutes)

1. What is the number of servers?

2. Is there a regulation or limitation on the system running server-side operating system?

3. What are the rules or restrictions for the client device operating system (in the store)?

4. Is the salesperson's computer equipped with a screen for the customers?

5. Are there still any other special hardware conditions (supplementary)?

6. Does the company have specific legal restrictions?

7. The development time and delivery time points given?

8. Is there an intermediate time frame when partial project need to be examined?

5.1.2 Performance requirements (5 minutes)

1. Is 1,000 person/day referring to the salesperson or the customer (personal * month) ? What is the upper limit?

2. What is the number of the stores in the description "Support the usage of massive stores concurrently"? What is the average number of orders in the store? And what about the peak order number?

3. Order response time?

4. "Long-running and stable support system ": the requirements for a client front end and user-friendliness, cannot be unable to play due to any reason except network or hardware issues, cannot crash under massive clients, cannot have severe bug after online

5.1.3 Functional requirements(15 minutes)

1. Drinks, ingredients, cups in the beverage store supported by the system

2. Superposition and mutual exclusion of offers

3. Language, currency, pricing

4. Register & log in

5. Order versus Associate / independent with drinks, price, and description?

6. What the customer sees: the information returned in the order content and paymentInfo , including the beverage, original price, discounted price, discount information (whether it is necessary to specify the description of each beverage)

7. How the salesperson gets permission

8. Log information provided by the system

9. Process confirmation again

5.1.4 Possible modification of the code

1. Increase currency dollar

2. Salesperson access

3. Offer modification

4. View all aspects of drinks and ingredients (cup type, price) individual customer / salesperson interface

5.1.5 About the requirements document

1. "Give a corresponding map and explanation for each demand"

5.2 Organized interview records

5.3 Code change logs in response of new demands

Bibliography

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