

Software Engineering Lab 2

Restaurant Management System

Group 26

User Requirements:

Our project is mainly targeted for the in-house usage of a particular restaurant. The target audience for the same is waiters, managers, and the kitchen personnel. All three user categories will require a different user interface with their catered functionalities:

1. Waiters

- a. Requires approved ID to login to the system
- b. Requires access to the pricing and the list of dishes available at a given time
- c. Should be able to add to the already existing order
- d. Should be able to get the feedback from the incoming customers
- e. Should be informed immediately whenever the order is ready.

This interface should be highly efficient and should allow the user to search for the dishes using the name and should have minimal requirements in terms of design.

2. Manager:

- a. Should be able to access all the data that is being updated from orders to the monthly revenue
- b. Should have access to the estimated rush hour analysis
- c. Should be able to keep track of the number of staff members present in the restaurant at a given time
- d. Should have access to the feedback given by customers.

This interface will be the in-house website which will display all the analysis done from the data gathered over time and allow the user to make necessary changes in the functioning of their restaurant.

3. Kitchen Personnel:

- a. Should have access to the incoming orders' list
- b. Should be able to modify the status of the order(accepted, ready, delivered)
- c. Should be notified as and when the order is placed by the waiter
- d. User friendly and easy to access UI

4.Inventory Manager

a.

Functional Requirements:

1. User Authentication(for waiters) who'll have access to the order placing system.
2. User Authentication(for managers) with full read-write access to the database of dishes, revenue, feedback, and rush hour records.
3. Ability to place orders with added parameters like quantity, spiciness, and Jain option.
4. Ability to specify table number while confirming an order.
5. Easily accessible overview of the ingredients, cooking-time, price, serving size, and taste of dishes.
6. A feedback form for ambiance, food quality, staff friendliness(also waiter specific), restaurant hygiene, and waiting time.
7. Analysis of customers' walk-in and leaving time for rush hour prediction.
8. A web page to show currently pending orders.
9. A system that computes total bills, along with tax and cess related breakdowns for the customers in detail.

Non-functional requirements:

1. Categorization of certain dishes into 'frequently ordered' for quicker lookup by the waiters.
2. Analysis and overview of waiters' performance based on user feedback.
3. Analysis and overview of restaurant hygiene, waiting-time, average time spent by a customer at the restaurant, and ambiance based on user feedback and other records.
4. Using graphs for easy analysis and overview of weekly and monthly revenue records.
5. The system should be able to handle large volumes of data and requests in rush hours.
6. There should be a maximum delay of 30s between confirming an order and the same being displayed to the kitchen personnel.
7. Only the managers and owners should have access to revenue and feedback records.
8. The system should have minimal downtime.

Domain Requirements:

There should be a minimal delay between an order being confirmed and the same being updated on the kitchen displays. The waiters should be able to review the order before confirming.

Further requirements will be evaluated after the interview phase.