RV College of Engineering®, Bengaluru – 59 Department of Information Science and Engineering Database Design Laboratory (18CS53)

Requirement specification

Title: FOOD COURT MANAGEMENT SYSTEM

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1. Hardware Requirement Specification Processor:

Intel(R) Core(TM) i3-4005U CPU@1.7GHz

RAM: >=4GB

1 GB Hard Drive Free Space

Input Device: Keyboard and Touch Pad

Output Device: Colour Monitor

2. Software Requirement Specification

Operating System: Windows 7,8,10

Front End: HTML, CSS are used to create the web pages and their styling.

Bootstrap will be used for added predefined functions to make web pages more responsive

Backend: MySQL is used for querying the database. MySQL will be integrated with PHP for backend performance. Apache HTTP Server is for backend performance of software

2. Functional Requirement

2.1 Place Order

The system will give customers the ability to place their orders using our Application. It will display a list of available and unavailable dishes in the menu where unavailable dishes will be grayed out. Customer will be able to select multiple dishes and their quantity for a particular order.

REQ-1: The system will show a list of dishes. Below each dish Price will be mention.

- **REQ-2:** The system must show all available and unavailable dishes to the Customer.
- **REQ-3:** The popup for quantity input will not allow the user to enter letters, negative numbers or any invalid characters.
- **REQ-4:** After completing the order the system will display a timer "Time to complete the order". Moreover, it also shows a cancel order button.
- **REQ-5:** Unavailable dishes must be displayed but their operations must be disabled.

2.2 Counters Order Queue

Whenever a new order is placed by the Customer, the dishes in the orders are classified into categories. The system has the information of Food Items of each counter, it will assign each dish to a corresponding counter and place it in the order queue of that counter. There is a centralized screen in the kitchen which displays queues for each counter. Each item in the queue is labeled with the name of the dish.

REQ-1: System will classify the dishes in the order according to category and add this dish on a particular counter queue in the kitchen screen.

2.3 Edit/Cancel Order

Customer can edit the order any time before the serving. In editing mode, the customer can change the quantity of the of the food ordered, add and remove dishes from the order. Also Customer can cancel the order at any time before serving by clicking on cancel order button.

- **REQ-1:** System must allow the Customer to increase, decrease or even remove the dish from the order any time before serving.
- **REQ-2:** System must allow the customer to cancel order at any time before serving.
- **REQ-3:** System must remove the dish ,decrease quantity of the dish and Cancelling of order with the approval of Admin of respective Counter.

2.4 Bill Payment

Customers can pay bills using this functionality through cash or online payments.

- **REQ-1:** System must show Admins the order ID and total payable amount of respective customer.
- **REQ-2:** The system must give ability to the Admins to change the status of the bill to paid.

2.5 Add/Edit/Delete Menu Items

The system gives ability to the admins to add, edit and delete Food Items. Using

this feature admins can add different Dishes into the Menu.

REQ-1: Admin should be able to add all necessary information about the Dishes

REQ-2: System must give admin the ability to edit information about all Food Items/Dishes.

REO-3: System must give admin the ability to remove any Dish from the menu.

2.5 Seat Reservation

Customers can able to Book/Reserve seat at the time of placing the order.

REQ-1: System will show available number of seats at the time of ordering of food item.

REQ-2: System will allow customer to book any number of available seats.

REQ-3: Customers can modify/update or delete their reservation based on availability.

3. Non-Functional Requirement

3.1 Performance Requirement

The system must be interactive, and the delays involved must be less. So, in every action-response of the system, there are no immediate delays. In case of scrolling through the menu there should be a delay of no more than 2 second before the next page of menu items is displayed. The order should be visible to the Admin in less than 1 second to start the preparation. Cancel Order/ updates must be made with little delay. Also, when connecting to the Database server the delay to make a successful connection should be less for effective real time communication.

3.2 Security Requirements

There is a need for a proper and encrypted login authentication for admin as employee sensitive information as well as inventory should be protected from hacking. Information transmission should be securely transmitted to Database without any changes in information to avoid disturbances in orders and billing.

3.3 Software Quality Attributes

3.3.1 Adaptability:

We were able to change in the menu and information stored in the database about Customers and inventory.

3.3.2 Availability:

The system is up and running for most of the time and server is not down for more than a few minutes to avoid inconvenience of the customer.

3.3.3 Correctness:

The bill generated by the application must be accurate and the orders placed should exactly be the same which the user has selected.

3.3.4 Maintainability:

Software can be easily repaired if a fault occurs.

3.3.5 Reliability:

No matter how many orders are placed, system must give the correct results.

3.3.6 Robustness:

Software must have checks to ensure that the items that are not available in the menu cannot be selected and the emails, phone numbers added are all valid.

3.3.7 Testability:

All the requirements are fulfilled, response time is low, and all functions are working perfectly.

3.3.8 Usability:

Interface of the software must be easy to use. So that customers can easily order in our Application.

ER DIAGRAM

