Digital Menu Card for Restaurants

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# Introduction

This document provides an overview of Requirements Specification for the subject Digital Restaurant Menu and Ordering System. To begin with, the purpose of the document is presented and its intended audience outlined. Subsequently, the scope of the project specified by the document is given with a particular focus on what the resultant software will do and the relevant benefits associated with it.

# Purpose

This SRS describes the software functional and nonfunctional requirements for release 1.0 of this Project. This document is intended to be used by the members of the project team that will implement and verify the correct functioning of the system.

# Background

## Other Available Menu Ordering Systems

There are several menu ordering systems available in market. These menu ordering techniques are as follows –

* **Paper based menu card**: The existing system is paper based. This system is used mostly in restaurants. In this, menu cards offered to customers in restaurant are made of Paper, hard board. Waiters use notepad to write the order of customers. The records are stored on paper.
* **Self-service food ordering technology:** Whenever, customer visits the restaurant he/she would navigate through the menu present on KIOSK display and select the food item available from list then pays the bill with available payment options. The customer will be given an order number. The order will be automatically routed to kitchen with physical connection. When the order is completed, order number is announced and displayed on screen then customer have to pick their food item from respective counter.
* **QORDER**: Other Advancement in menu ordering in hospitality industry is QORDER which is a portable ordering system. It is a portable handheld device that runs the complete QMP POS software on android device. It requires a WIFI to connect the remote corner. This system also involves waiter as in case of paper based menu card system. In this, the waiter no longer approaches the table with his notepad instead with the portable device known as QORDER, and then takes the order from customer. He then sends the order to kitchen for further processing. Once the customer finishes, the waiter prints the bill.
* **Computerized ordering system:** This ordering system is somewhat same as KIOSK ordering system in aspect of order placing but differs in aspect of serving. Here food is served by waiters. But order is written on computer by restaurant staff.

## Proposed System (with advantages and disadvantages)

This project is an integrated system, developed to assist restaurant management groups by enabling customers to immediately make orders on their own selves. This will minimize the number of minutes to wait for the meal serving. This paper highlights the drawbacks in the traditional menu ordering system compared to the proposed Touchscreen based menu card system.

# Project Scope

## In Scope

The following are the features which can be a part of the proposed system:

1. Digital menu card instead of the traditional manual card with attractive presentations

2. Sorting an item.

3. Searching an Item

4. Ordering of Menu Item

5. Billing and Payments

6. Customer feedback

7. Offers for Customer :- The Restaurant owner can post various offers on tablet

8. Modifiable Menu and Prices : by Kitchen/Restaurant Manager

9. Time to Serve a particular menu item

10. Enable or disable menu items in accordance with the availability

## Out of Scope

# Functional Requirements

## System Features

* **Tablet on table**:-
  + There will be a tablet on each table.
  + This will allow the customers to browse the food items for the time they wish.
  + This will allow the customers to browse the food items the way the customer wish.
* **Attractive Presentation**:-
  + The Menu is organized in an attractive way.
  + There are images of every food item which will make the view of customers more clearly about how the food will look like after delivery.
  + Here is an attractive use of various themes and color schemes.
* **Sorting an Item:-**
  + The food items will be sorted according to price, season and user ratings.
  + This helps the customer to find or select a food item which has a good rating and which is liked by a many customers.
  + This also helps the Restaurant owner to make changes in a particular food item if it has low ratings which improves the quality of food.
* **Searching Item:-**
  + Customer can search a particular food item according to name, price, category etc.
  + This saves a lot of time of customer to order an item.
* **Time to Serve:-**
  + The menu includes the approximate time to be served of a particular food item.
  + This will help the customer to select the food item accordingly
* **Modifiable Menu:-**
  + The menu can be modified by the Kitchen manager.
  + The items which are not available in a particular time period are not displayed on the menu card.

## Specifications by Module

### Module 1: Menu Entry

* The menu items will be added to the database by Kitchen Manager or Restaurant Manager through the given specific form/template.
* In order to manage information A restaurant owner Should be logged in to the web-portal and filling in the below menu fields:
  + dish name
  + dish description
  + dish price
  + time to cook
  + dish category
  + dish sub category

### Module 2: Attractive Screens including videos/images

This Module contains the catchy and attractive screens, pages, navigation. The videos and images will be added wherever required.

### Module 3: Navigations

Following Navigations will be required as a top level Navigation or Left Navigation:

* Home Landing Page
* Menu – Category
* Menu Item details – Sub category with description, price, rating, time to cook etc.
* Cart
* Billing and payments
* Customer Feedback

### Module 4: Sorting an Item

* Menu items will be sorted as per the below criteria and the result will be displayed with minimal time.
* Price
* Food Category (veg/non-veg if applicable)
* User Rating
* When sorting by Menu type or category the results should be ordered alphabetically.
* When sorting by price the results should be ordered from cheapest to most expensive.
* When the sort button for a specific search option is clicked, then the order should be reversed and ordered in a descending matter. If the sort button is clicked again the order of the results should be reversed.

### Module 5: Searching an Item

* Customer can search the menu item with Name, Category and Price.
* A user should be able to input a maximum and a minimum price range.
* A user should be able to conduct a search by providing Food item name, item description or Food Item type in the free-text search field.
* If no match is found the user should be informed but kept on the search page in order to get the possibility to conduct a new search right away.

### Module 6: Ordering of Menu

### Module 7: Cart Operations

### Module 8: Billing and Payments

* A customer shall be able to engage bill mode to finalise payment.
* Billing Modes will be : Cash or Bankcard

### Module 9: Customer Feedback along with rating

Customer can enter the feedback about the service and the food served.

* This helps the Restaurant owner to analyse the service and make necessary changes if needed.
* This also helps the Customer’s to decide a particular food item with a positive feedback.

### Module 10: Alert Messages

A waiter assigned to a table or a Restaurant Manager shall be alerted via their tablets when:

* An order is placed from that table
* An item ordered by that table is rejected by the kitchen
* An item ordered by that table is ready to be served
* The table has requested waiter assistance

### Module 11: Modifiable Menu

* An administrator Should be able to manage the dishes:
  + Add a new dish
  + Editing an existing dish
  + Delete a dish
* Enable or disable menu items in accordance with the availability

# Performance Requirements

The requirements in this section provide a detailed specification of the user interaction with the software and measurements placed on the system performance.

## Prominent search feature

The search feature should be prominent and easy to find for the user

## Usage of the Search Feature

The different search options should be evident, simple and easy to understand.

## Usage of the result in the list view

The results displayed in the list view should be user friendly and easy to understand. Selecting an element in the result list should only take one click.

## Response time

The response time of a search should be faster.

## System dependability

If the system loses the connection to the Internet or the system gets some strange input, the user should be informed.

# Other Requirements

## Screens and workflow

## Assumptions and dependencies

* It is assumed that this software will always be used on tablets that have enough performance. If the tablet does not have enough hardware resources available for the application, for example the users might have allocated them with other applications; there may be scenarios where the application does not work as intended or even at all.
* It is further assumed that tablet PCs of sufficient processing capability and battery life will be utilized.

# External Interfaces Requirements

## User Interfaces

* **User Tablets:**

This type of the tablets is especially for the use of normal users coming in the restaurant. These tablets will consist of the whole menu of the restaurant. The items in the menu are non-editable for these types of the tablets. So, the user cannot interfere in the menu and make changes in it. The tablets should be able to display all the items of the menu with sufficient visibility. Customer from any layer of the society should be able to handle and operate all the functions easily.

* **Manager Tablets:**

These tablets are especially for the use of the restaurant manager. The manager should be able to control the function of whole restaurant. He can access any tablet and should be able to make changes to the menu. Like he can change price of particular item or he can disable particular item which is not available at that particular time.

* **Display at Kitchen:**

These are present at the kitchen near chef so that he should be able to see what a particular has ordered. All the ordered items are displayed on the screen giving the table number below. They should be sufficiently large to be seen by chef at a reasonable distance. Chef should be able to denote a particular item that is ready.

## Software Interfaces

TBD

## Communication Interfaces

The Digital Menu Card will interact with a WiFi to maintain communication with all its devices.

# Users and Security

## Security

* The system shall log every state and state change of every user tablet and display to provision recovery from system failure.
* The system shall be capable of restoring itself to its previous state in the event of failure (e.g. a system crash or power loss)
* The system shall utilize periodic 30-second keep alive messages between tablets and the server to monitor tablet operational status.
* The system shall flag tablets that fail to send timely keep alive messages as non-operational and disassociate the assigned waiter from the tablet .
* The messages should be encrypted for log-in communications, so others cannot get user-name and password from those messages.
* If a restaurant owner tries to log in to the web portal with a non-existing account then the restaurant owner should not be logged in. The restaurant owner should be notified about log-in failure.

# Non-Functional Requirements

* A manger password used for tablet login must have a bit strength of at least 64bits.
* A manager password used for tablet login must be changed every three months.
* A manager shall only be able to log into one tablet at any given instance of time.
* The display shall not require an user to log-in.