

# **1 Introduction**

In the Modern world business it is hard to successfully cope with the market without adopting modern technology. Modern technology has become so vital that it has made the whole buying and selling system so easy that it can be done by the click of a button.

This document consists of an IT solution for fast food restaurants. Nowadays most of restaurants latest objective is to bring a futuristic appearance to its outlets and make its operation more efficient and provide even better customer service by introducing an automated solution. With that purpose here provides an automated solution mainly consisting with a mobile app and the documentation following its design, implementation, it's using and its basic functioning.

## **1.1 The Problem Statement**

Basically most of restaurants current approach focused on the manual labor and most of the operations are done by human initiative. This makes the whole business process inefficient and time consuming because the current system consumes more time to carry out its operations the loss of time will be directly influencing the productivity of the restaurant.

Then the improve customer satisfaction, managing restaurant queues is gaining importance for increasing table turnover and revenues. Prior research establishes that although customers high importance on the speed of service. Because perceived wait time directly affects customer engagement, it is crucial to manage it in every customer interaction.

In other hand most of customers decide what they wants to buy after coming front of queue so that effecting to make long queue in restaurant.

Also the currently existing manual system does not have functionalities beyond the basic day to day operations of a restaurant and there has no proper way to capture regular customers and conduct promotions for them.

## **1.2 Scope of Project**

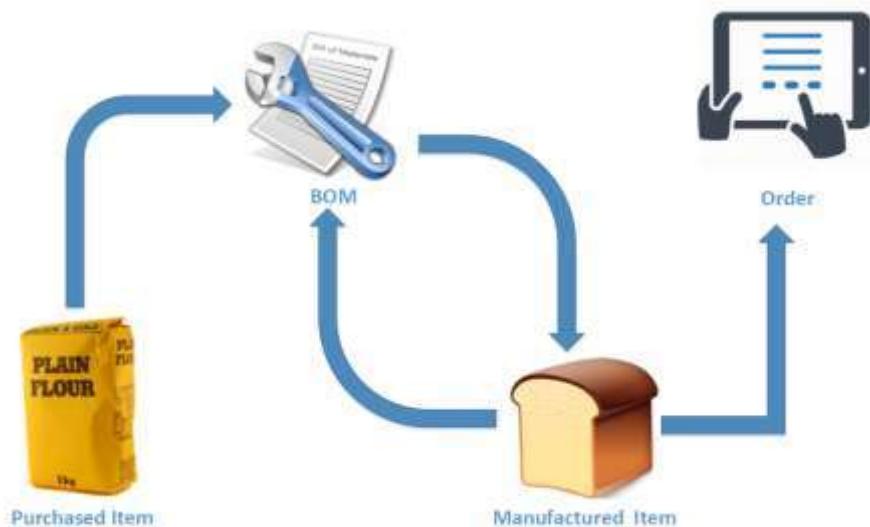
Based on requirement analysis system divided into two main components

- ❖ **Supply chain management System**
  - ✓ **BOM Creation**
  - ✓ **Control inventory**
  - ✓ **Report & Analytics**
- ❖ **Order management system**

- ✓ **Make order**
- ✓ **Authentication**
- ✓ **Capture orders**
- ✓ **Payment**
- ✓ **Promotion handling**
- ✓ **Reports & Analytics**

#### ➤ **Bill of material Creation**

When considering food industry bill of material is important process which also known as the BOM or recipe. The bill of materials is a listing of the raw materials and work in progress and the quantities of each needed to manufacture a finished product.



*Figure 1:1 : Bill of material*

#### ➤ **Control inventory**

Here most important approach is figure out and maintain the optimum level of items in the inventory. Then it will help to provide food items continuously on demand.

#### ➤ **Reports & analytics**

Here main objective is collect information, organize it, and present it in a logical and concise form. That is helping to take decision about inventory. Basically system will include following reports.

- ✓ Material specification reports
- ✓ Stock balance report
- ✓ Costing report
- ✓ Supplier report

### ➤ **Create orders**

Creating an order is the main part of the system. When customer come to restaurant he or she can make order using tablet. The menu will displaying based on bill of material which created on supply chain management section. This will help to improve customer satisfaction proving quick response.

### ➤ **Customer authentication**

When customer came to restaurant before make order he or she need to enter phone number to the tablet , then system will generating OTP and simultaneously it will goes to customer mobile phone to as a SMS. Then customer need to enter that token to tablet before continue (authentication will be an optional and if restaurant management decide authentication no need, then gives an option to take only mobile number from customer).

Main purpose of this authentication is if someone left after dinning without paying bill payment, then restaurant management has some kind of reference about customer. Then other hand that will help to identify who are the regular customers visiting to the restaurant and conduct some royalty programs, in future can use that data to data mining purposes.

### ➤ **Capture orders**

When customer order confirmation then it should display on screen placed on kitchen. Then customer can take some alerts which stage in order and who are the responsible person for preparation process.

### ➤ **Payment**

After dining customer can request the bill. Then the system will generate the bill. If customer put multiple orders at once customer have option to request single bill for multiple orders or separate bill for each order.

### ➤ **Handling promotion**

Basically there has some two kind of promotions

#### ✓ **Free items promotions**

If restaurant carry out item to item promotion, then the particular scenario it should be effect to inventory handling.

#### ✓ **Discount wise promotions**

If restaurant carry out discounts for regular customers, then it also should have maintain record regarding discount amount for account balancing purposes.

## ➤ Reports & Analytics

Same as supply chain section this side should generate reports related to sales. Basically following are the reports will include to the system

- ✓ Invoice payable
- ✓ Sales summary report
- ✓ Customer report.

Within next chapter will discuss the implementation background. Basically it's contains critical review of similar systems.