CSE-180002,

Restaurant Order Management System

A project submitted

By

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A Project Report submitted to the Department of
Computer Science & Engineering
in partial fulfillment of the requirement for the degree of
Bachelor of Science in Sonargaon University

Supervisor: Khadija Islam

Department of Computer Science and Engineering
Sonargaon University

January,2018

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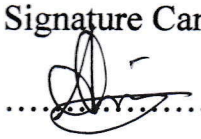
6th January 2018

DECLARATION

We, hereby declare that the work presented in this Project "Restaurant Order Management System" is the outcome of the investigation performed by us under the supervision of Khadija Islam, Lecturer, Department of Computer Science and Engineering, Sonargaon University, in partial fulfillment of the requirements for the degree of Bachelor in Computer Science and Engineering.

We also declare that no part of this project has been or is being submitted else where for the award of any degree.

Signature Candidates



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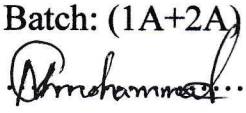

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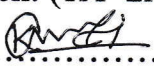

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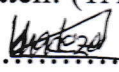

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APPROVAL

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ABSTRACT

The project "Restaurant Order Management System" is implemented to reduce the manual work and enhances the accuracy of work in a restaurant. This system manages and maintains the record of customers and room in the hotel. The room has different categories such as A/c., non-A/c., dormitory etc., so the charges and records will be maintained accordingly. This software has been made in a user friendly interface. So that normal person can add and delete the entries of customers and handle all the transactions easily. This project is also designed with full consideration to help the users in an easy manner without any unnecessary wastage of time. This system can be implemented in big restaurant where customers can order their food from their room using system. The menu card consists of various food varieties available in the restaurant. Through the ordering form, the customer can simply click and order the food. The messaging system tells the supplier to supply the particular food. The billing system prepares the bill according to the delivered food. This system entirely reduces the unnecessary time waste inside the hotel as well as it reduces unnecessary noise.

Many restaurants have a lot difficult to manage the business such as customer ordering and reservation table. By using manual customer ordering is difficult to waiter keep the correct customer information and maybe loss the customer information. In many popular restaurants, waiters/waitresses tend to miss out on tables or customers' calls during busy hours potentially decreasing ones clientele. While this is an ongoing issue, there is still no product that drastically improves the communication between the servers and the customers in the current market.

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CHAPTER 1: INTRODUCTION

1.1 Project Overview

This project works is aimed for developing an efficient food ordering system that can be used in the food & beverage **(F&B)** industry which can help the restaurants to quickly and easily manage daily operational task as well as improve the dining experience of customers. It is believed that still have a lot of restaurants are using the traditional method for food ordering processes. By using the traditional method, it arise a lot of human error while the restaurant's employees deal with large amount of customers, this issue will did a great impact to the restaurant in terms of profitability. Thus, this project is to propose a suitable food ordering system for F&B industry to solve the problem that mentioned above. The system will become an important tools use for restaurant to improve the management aspect by utilizing computerized system to coordinate each and every food ordering transaction instead of traditional method. In addition, it can also provide efficiency for the restaurant by reducing time consuming, minimize human errors and providing good quality customer service. In terms of the integrity and availability of the system provided, it can be concluded that this system is a suitable solution for the F&B industry.

1.2 Project Background

Nowadays, people are more and more frequent to dine-in at restaurant for their meals. Especially in Kampar, it has roughly 35 thousands to 40 thousands of citizens staying in this small town. Therefore, it will have a lot of people especially students of UTAR (University Tunku Abdul Rahman) looking for restaurant that they prefer as their meals such as breakfast, lunch and dinner. At this moment, it arise a lot of troublesome to restaurants which are still using traditional food order method as their food order process.

The traditional food order method is not efficient enough for restaurant to deals with crowded situation in their restaurant. The traditional food order methods can be classified into 2 categories which are paper based and verbal base. For paper based food order

method, the waiter will record down foods that customers order and pass the food order paper to the kitchen for further process. This is the method that implement by most of the restaurants in Kampar. In addition, this method still consider efficient if restaurants are not crowded, but however it will arise a lot of human errors while restaurants are crowded of customers such as food serve not in sequence, missing of food order paper, mistake in record down the food name and etc.

Second, verbal base food order method is even worse than paper base food order method. Because, verbal base food orders method require employees to remember all the customers' food order by relying on their memory and then employees will reach the food order message to the chef in kitchen physically. Verbal base food order method contains the weaknesses such as causing the employees unable to memorize all the food order during the restaurant is crowded of customers and the problems that mentioned above. Thus, this kind of weaknesses will did a great impact to the restaurants' profitability.

As a conclusion, this proposal is written to propose an efficient food order system to enhance and improve the existing traditional food order management system and provide convenience, availability and integrity to restaurants. At the end of the project, it will be very useful and did a huge contribution for restaurants which are located in Kampar to deals with crowded situation during operation hours.

1.3 Problem Domain

Difficulties in food order ticket tracking

For those restaurants which are using traditional method for food ordering processes, this is a problem that can't be eliminated. Because the entire manual process which involve waiters, pen and paper. Each and every food order transaction is noted down on a piece of paper and the waiters pass the food order ticket to the kitchen for further processing. While the food order tickets have passed to the kitchen, the sequence of the food order ticket might be interchanged with other ticket. Therefore, it will cause the restaurant not be able to serve their customers in sequentially according to the customer order sequence especially in peak hour, so customers would complaint to the restaurant in turn it will affect the customer relationship of the restaurant.

Potential to increase cost of operation

The cost of operation of a restaurant will be increase from days to days because of the economic inflation. When the inflation comes in, the cost for each and every fresh ingredient that used to support the restaurant daily operation will be affect too. Therefore, the restaurants have to make changes to the food price accordingly in order to maintain the profit, and then all the food menu cards have to reprint to reflect the updated price. By doing so, it will raise the cost of operation to the restaurant because we will not know how frequent the inflation occur in the economy. Next, if the physical areas of the restaurants are very large. It might need to employ extra worker in order to serve their value customer and thus it will increase the cost of operation too.

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Difficulties in providing appropriate and updated food information

The fresh ingredient that used to support the restaurant daily operation may vary depending on the market supply. Therefore, in order to provide this unexpected information during the food order process, those staff has to remember all the food availability and told the customer at the beginning of ordering process. For example, if the supplier does not supply "Salmon Fish" recently. Staff has to remember and inform consumers that all food that contains "Salmon Fish" is not available. But most of the time, the staff may forget this unexpected information due to the heavy workload. Hence, it may reduce the rate of satisfaction to the consumers after they had make decision but at the end the restaurant does not serve them accordingly.

1.4 Project Objectives

1.4.1 Provide convenience for both employees and consumers

The system will provide an experience of convenience to the restaurant employees while they are on duty as well as the consumer who dine-in at the restaurant. This system allow the staff to serve customers with the minimal delay compare to the paper based order

system, because what the staff need to do is just record down the food that the customer wish to order then the staff place an order via the computer, the food order will be send to the kitchen computer simultaneously. After the order have been successfully placed one copy of the food order with it details will be printed out for customer review. It significantly shorten the time needed to take an order, assume that kitchen area is on ground floor but currently the staff is taking order at second floor. If the restaurant is using paper based system, the staff has to deliver the food order to ground floor and walk all the way back to second floor, it take a lot of time and time consuming. Therefore, by using this system it can eliminate this minor section of the order taking process. Besides, it can let consumers to enjoy their meals within a short period of time and thus it can increase the satisfaction and turnover rate of the consumers.

1.4.2 Assist restaurant to plan ahead

Whenever the staff places an order for consumers, the food order details information will be store to the database for further analyzing to perform forecasting. The employees can check previous food order details to solve any misleading and misunderstand incident while it occur. For example, staff can manage to inform the consumer estimated times that require to prepare the food during business hour especially peak hour and hence it can help reduce conflict occur. Therefore, it is very important to keep all the necessary business data for further review.

1.4.3 Prevention of food serves not in sequence

This objective will be achieved because whenever employees place an order into the system, the system will schedule the food order details in a queue then the chef will prepare the food according to the food order queue. In paper based system, the employee will deliver the food order ticket into the kitchen and the chef cook whatever foods that are recorded on the paper, due to the order details are recorded on each and different pieces of paper it is very troublesome and possible to leads the chef to cook food without following the order sequence. Hence, when the employee serves foods to consumers without sequence it will cause consumers to be unhappy and dissatisfaction and it will

affect the images and reputation of the restaurant. Therefore, the system can help prevent this kind of incident to be happening.

1.5 Project Scope

The project aimed is to developing an order system that can be used in the small medium enterprise food & beverages **(F&B)** industries which can help the restaurants to simplified their entire daily operational task as well as improve the dining experience of customers. The system will be in 2 platforms which are mobile and computer based. For based platform will developed to let user to view the menu card information of the restaurant and able to let user place an order via the system. In computer based platform, the system will be able to let staff to update and make changes to their food and beverage menu information. Next, it also allows staffs to generate report that they wish to generate such as monthly sales report. The most important function is to allow staffs to make billing statement for consumer to make their payment after dine-in.

At the end of the project, it will improve the restaurants productivity, efficiency, effectiveness and as well as accurateness. Because of this system, it will minimize all the manual work by replacing the traditional order system into a computer system. It will eliminate the manual work such as workers physically deliver food order ticket into the kitchen, manually replace the price tag of the food and manually calculate billing price. These are some main functional module that will exist in the system.

Food & Beverage Ordering Module

This module will be developed in mobile platform that let staff pass over the mobile devices such as tablet or smart phone to the user for viewing the restaurant food menu information. User can also place an order thru the mobile devices after they make their decision and also some extra remarks that customer wish to request.

Order Queue Module

This module can help queue the food order that had been placed and display to the kitchen staff accordingly.

Reporting Module

User can view the overall performance of the restaurant in chart report. The report can generate according to the time period and the time period can customize by user.

Menu Management Module

In this module, user can update the latest and updated food menu information to the system such as name, code, price, and food availability. After the information changes, the mobile devices will retrieve the latest food menu information and display to user.

Billing Module

This module will gather the order information and print the billing statement for user to make payment and keep for their reference.

Good & Services Tax (GST) Calculation Module

This module will be able to calculate the total GST that have collected from consumer]pay the amount of money to government.

Restaurant Chef

Restaurant chefs are responsible for selecting the cuisine and recipes of a given establishment, hiring the staff to prepare it and providing an appropriate atmosphere. These professionals also hire support personnel, such as bookkeepers and reservations staff. They are responsible for the complete restaurant package, and often their names are directly associated with the eatery.

Restaurant chefs often work in uncomfortable, hot kitchens for more than 40 hours per week. Good communication skills are required to effectively supervise and manage others in potentially hazardous kitchen environments. These professionals need creativity and a fundamental understanding of preparation and cooking techniques. The cuisine that a restaurant serves also has to be appealing to the local community, so this particular factor comes into play on a case-by-case basis.

Occupational Outlook for Restaurant Chefs

Restaurant chefs could see employment growth of about 9% from 2014-2024, according to the U.S. Bureau of Labor Statistics, which is faster than the national average for all occupations.

Diners were expected to seek more specialized cuisine, but restaurants across the nation increasingly look to hire regular cooks instead of chefs to trim costs. Upscale restaurants were projected to have stiffer job competition for chef openings.

In summary, working as a restaurant chef can be a high-pressure but rewarding career. Those best suited to becoming a chef are skilled at managing teams of people and have a creative knack when it comes to food preparation. On-the-job training or completion of a culinary degree are two ways to gain the required skills and knowledge

1.6 Impact, Significance and Contribution

After the system was successfully developed, it will bring lots of convenience to the restaurant employees when they perform their duty within the restaurant as well as improve the consumer dining experience. It will rapidly increase the productivity of the restaurant compare to the paper based system as it shorten and simplify the entire process food order, make payment, food deliver and minimize human error.

On the other hand, the restaurant can provide better customer services to their valued customers by fully utilizing this system. With a good customer services, is a good starting point to fulfill customers' satisfaction as well as customers' wants and needs. Meanwhile, after customers experience and satisfied with the customer services that provided from the respective restaurant, they would share their experience to the popular social website nowadays. Apart from this activity, it was indirectly advertising the restaurant to the public.

CHAPTER 2: LITERATURE REVIEW

2.1 Ordering System

In our generation era, computer has become a key component to our daily life because of the advancement technology of World Wide Web that becomes an internet that allow each and every user connected with theirs' computer for information sharing throughout the whole world. The World Wide Web did a great contribution to a lot of enterprise which use this mechanism for information sharing within the enterprise and also outside the enterprise (Kapchnaga, R, 2014).

From the benefit of World Wide Web, a lot of fast food industry applies a system known as Online Ordering System to assist their business processes. Online Ordering System is a technique that allow customer to order their favourite food online via the internet by using a web browser that installed in their respective computer or smart phone. Implementing this system can help fast food industry to solve the problem that they face while using the traditional food ordering processes.

The system greatly simplifies the food ordering process for both customer and restaurant compare to the past. The customer can place an order everywhere and anywhere whenever internet connection is available for them. Customers access to the website and choose the food that they prefer from the online menu display then customers have to choose whether the food is delivered to them or it will be packaged for pick up and the payment method will be upon delivered or pick up and lastly it will show all the order details to the customer for double checking and confirmation.

On the other hand, the system also greatly lightens the work load on the restaurant's end. Once customers have place an order via the internet, the data will send to the restaurant database and place in a queue in real-time. In addition, the data will be display on the computer screen along with the corresponding option. It allow restaurant employee easily manage the orders sequentially, produce the necessary item with a minimal delay.

Strength

The system is very suitable for fast food industry due to it provides ability for customer to place order anywhere and everywhere and also minimized the time require during the order processes. Customers do not need to physically go to the restaurant for food ordering instead of just using their mobile device to place an order via the internet and when the customer reach the restaurant they can directly have their meal without waiting for the queue. Meanwhile, it help the fast food restaurant to have a better customer services because the most important factor that fast food industry concern about is quickness therefore the restaurant should serve their customer without any delay.

Weaknesses and Limitations

The main weaknesses of the system will be internet connection depended. The system will not be operating without the internet connection. Because customer have to place order via the internet as a medium and the data send to the restaurant database for further process, the customer will not be able to access the web service if no internet connection available. Furthermore, if the Internet Service Provider (ISP) is under maintenance it will did a great impact to the restaurant that relies on the online order system for their business.

Other than that, the system is not effective enough to target all the customers on the market. Because have a lot of senior citizen are without computer literate, so they do not really understand how to utilize the web service. Thus, if they want to place an order by using the system it will be a very troublesome incident for them.

2.2 Table Booking and Food Ordering System

Attractive Profile : There are images of every food item and restaurant location which will make the view of customers more clear about how the food will look like after delivery.

Time to Serve : The manager gets the approximate time customer will take to reach the restaurant. Food served as soon as customer arrives. Provides ease to customers.

Find Friends: The application allows to search friends in the vicinity to accompany customers. This encourages interaction and business of restaurants.

Diet Count: The diet count, calorie intake, sugar intake is measured. A notification arrives for health conscious customers. Provides customer satisfaction.

System Architecture: The system architecture of Digital Table Booking and Food Ordering using smart table is shown in

The architecture covers the four main modules: the Customer or the Foodie, the Manager, the Aministrator and the Kitchen section. Conceptually this system is built using four main components: The android application on the smart phones.

The server application on the restaurant-manager's laptop/tablet to customize keep track of customer records, table bookings and time required to reach.

The central database for restaurant-owner to store updated menu information and order details.

Wireless connectivity between the manager and the kitchen area of restaurant

2.3 Restaurants Menu

This order system overcome the drawback of traditional paper based order system, it change everything from paper based into computerized. First of all, the system will be programed with the food availability from the respective restaurant and display on touchscreen devices that have been setup in each of the tables within the restaurant. In addition, the touchscreen device will have a very attractive Graphic User Interface (GUI) that displays the food menu for customer to make their choices and enable customer to place an order by touching the particular food image that display on the device screen. Next, when the customer placed an order, the food order will be send to the kitchen and the chef can prepare for the food. This system eliminates the issue from traditional paper based system that the waiter has to manually deliver the order to kitchen. Other than that, the system provide a sub-module that enable restaurant owner to update the food details, food price and etc. It was very convenience compare to the traditional paper based system, because paper based system require the restaurant owner to dispose all old food menu

cards and re-print the latest food menu card to serve their customers.

Last but not lease, the system was fully rely on the gadgets and the gadgets doesn't need leave or vacation and thus it can work efficiently 24 hours per day and 7 days per week. Therefore, it can reduce the excess manpower need in the restaurant business by reducing

Strength

This system will help in reducing the number of employee that need in the restaurants hence it will directly help in considerably reducing the long-term cost of restaurant management. Second, the system also helps reducing the manual customer services activities and thus eliminating the human error and human mistakes.

CHAPTER 3: METHODOLOGY

3.1 Proposed Methodology

The software methodology that choosen to develop this System is Throwaway Prototyping. Throwaway Prototyping Model is especially useful when the project needs are vaguely and poorly laid out. It functions by providing proof that something can indeed be done in terms of systems and strategies. Throwaway Prototyping Model is used for certain projects and will eventually be discarded after the project has been completed. It is also known as Close-Ended Prototyping. Throwaway Prototyping Model is implemented through the creation of prototypes and thereafter gathering feedback from end users to check if they find it good or not. This is valuable to get a better understanding of the actual needs of customers before a product or service is developed and delivered. The reason to choose Throwaway Prototyping to develop this system is due to it can develop a new system in a short time compare with other software methodology. Other than that, user might not clearly understand what they really require in the system. Therefore, Throwaway Prototyping is where the objective to develop the system rapidly and to understand the user's requirements and hence develop a better requirements definition for the system.

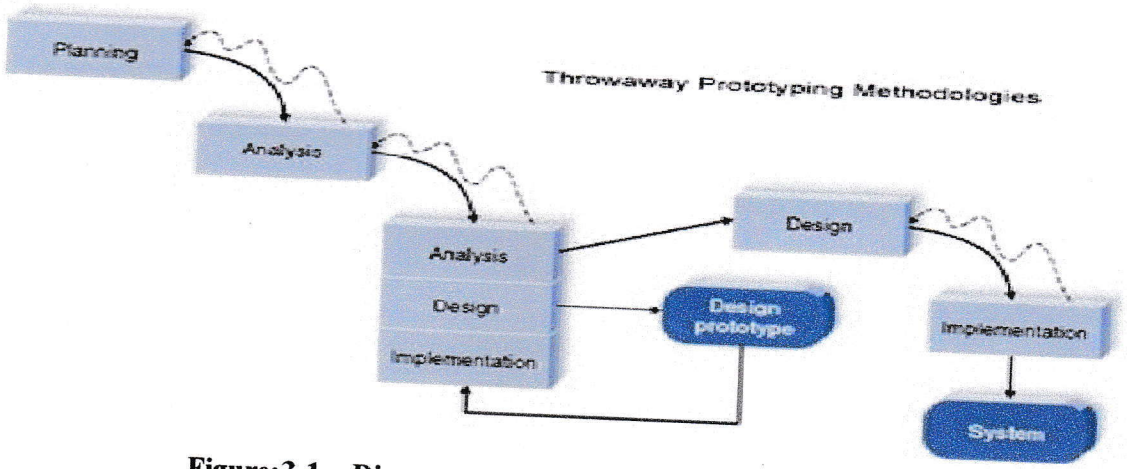

Figure:3.1:- Diagram of Th rowaway Prototyping processes

3.1.1 Planning & Analysis

First and foremost, in planning phase will conduct Joint Application Session (JAD) with users in order to gather and understand the business needs and system requirements that users are not clear. During the JAD session, will make use of CASE tools such as Microsoft Visual Studio.NET, Microsoft Visual Paradigm and so on to generate the user interface that shows users to verify the user requirements. Furthermore, the activity of observation on the users' daily work in order to understand and has clarity viewpoint of the business process that operate every day.

At the end, a work plan which includes the project's Gantt chart, Network Diagram, resource sheet, resource usage and cash flow management will be generated. Then, will follow Gantt chart and Network Diagram as a guideline to perform the tasks that scheduled to develop the system.

3.1.2 Analysis, Design & Implementation of prototype

After gather the user requirements from JAD session and observation. Will starts make analysis, design and implement each and every module base on the user requirements that gathered.

3.1.3 Design Prototype

In this phase, the work is to assemble every modules that had been implement in the previous step to complete a finalize system prototype. Prototypes will be introduced to end users who will utilize them for testing and evaluation purposes. At this time, they will be providing feedback, clarify needs and relay requirements. As per requirements of end users derived through feedback and testing, the prototypes will be continuously altered until such time it has reached near-perfection. (Repeat step 2 to step 3)

3.1.4 Design

Once everything has been set and issues have been properly addressed, the prototype will then be "thrown aay" which means discard and the system will be design, taking into consideration the feedback derived during the verification process.

3.1.5 Implementation

This is the last phase, which will develop each and every finalize modules within time frame from design phases and assemble it to be a final version system and deliver to end user.

3.2 System Planning

First of all, in planning phase the system for development will be identified and selected in order to solve the problem that discuss in chapter 1. Several studies are needed to have more clearly understanding about the system requirement. In addition, the SWOT analysis techniques will be used interpret the strength, weakness, opportunities and limitations of the basic requirement for the propose solution. Next, a project timeline will be created to have a clearly understanding of what should do according to the project life cycle. The project timeline typically is a graphic design showing a long bar labelled with dates alongside itself and usually events labelled on points where they would have

In this semester, the Documentation for Final Year Project will be complete in seven week. The Documentation include of the design of the system, this will serve as a reference that allow me to develop the prototype of the proposed project more efficiency. Start from week 8, the prototype of the proposed project will start develop.

After that, the full project development will start in the new coming semester and continue until the testing phase. The system will being test and the system will be debug to solve any error that found during testing. The feedback get from the system tester will collect and use as the reference in the system.

3.3 System Analysis

In system analysis phase, interview will carry out with potential user of the propose solution to gather and collect useful information for the propose system. Next, system requirement such as user requirement, software and hardware requirement will be generated and based on the system requirement, project scope and objective is defined.

3.4 System Specification

Customer Feedback: Customer can enter the feedback about the service and the food served. This helps the Restaurant owner to analyze the service and make necessary changes if needed. This also helps the Customer's to decide a particular food item with a positive feedback.

Click-n-Add Menu: Customer can search a particular food item according to name, price, category etc. The customer just has to click on food item and it will be added to his list. This saves a lot of time of customer to order an item.

Offers for Customer: The Restaurant owner can post various offers on tablet. This will help the customer as well as the restaurant owners.

Attractive Profile: There are images of every food item and restaurant location which will make the view of customers more clear about how the food will look like after delivery.

Time to Serve: The manager gets the approximate time customer will take to reach the restaurant. Food served as soon as customer arrives. Provides ease to customers.

Find Friends: The application allows to search friends in the vicinity to accompany customers. This encourages interaction and business of restaurants.

3.5 System Features

Customer feedback:-

- 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.

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.

Offers for Customer:-

- The Restaurant owner can post various offers on tablet.
- This will help the customer as well as the restaurant owners.

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 clear about how the food will look like after delivery.
- here is an attractive use of Various themes and colour 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.

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.

3.3.1 Functional Requirement

Order Management

- The system shall let the user to place an order for their consumers.
- The system shall prompt and ask user to verify the order that have been placed.
- The system shall allow user to add in extra remark regarding the order.
- The system shall allow user to void the order that mistakenly placed or exceptional case occur.

Reporting Management

- The system shall generate a report that based on the time period that customize by.

- The system shall retrieve related information from the database and generate the report to user.

Menu Management

- The system shall only allow management level user to edit the menu card information by having an authorization login checking.
- The system shall allow user to update their restaurant menu card information.
- The system shall save the updated menu card information to the database.

Billing Management

- The system shall retrieve data that needed and arrange in a meaningful structure then print for user as a reference.
- The system shall let user to choose the payment channel that they wish to use.

Goods and Services Tax Management

- The system shall calculate the total amount of money that need to submit to government at the end of the month.

Order Queue Module

- The system will update the queue display whenever a new order is placed.
- The system will merge the amount identical food that needs to be prepared and display on the screen.

3.3.2 Non Functional Requirements

Operational Requirements

- The system should operate in Window platform environment.
- The system should prompt user to make a backup at the end of the operational day.

Performance Requirements

- The system should let user to place an order in a short period of time.
- The system should complete perform the billing process in a short period of time.

Security Requirements

- The system should validate the username and password in order to login and make changes to the system.
- The system should request the current password of the user in order to let them change to a new password.

Usability Requirement

- The system should have an easy understand graphic user interface that deal with the user.
- The system should let user easy to understand the functionality of each modules.

3.3.3 Hardware & Software Requirements

Hardware

1.Intel ® Core i3 CPU 3.0 GHz or above

2. 8GM RAM

3. 500GB Hard Disk Drive (HDD) + 24G Solid State Drive (SSD)

4. USB port 3.0

5. Monitor

6. Wireless Access Point

In this project, a computer with sufficient processing power is needed. The computer is require for the developer to have project development such as coding for the mobile application, database creation and modification. For the complete system to work, several hardware requirements must be met. First, it require an android based smartphone in needed to deploy the software application and this smartphone is require to connect to the wireless access point to perform request and respond processes that access to the database. Next, database is a must for the entire system to store and retrieve the necessary data. Furthermore, a laptop or desktop is required to host the database and manipulate the entire system.

Software

- Front End : Visual Studio,
- Back End : MySQL Server, Wamp Server
- Operating System : Window 8/Window 10
- Programming Language : C#, SQL

3.3.4 DB Requirements:-

The database required for this system is SQLite database for storing details on the tablet itself. It also needs a database on the server which is handled by JSP and SQL. So what basically is SQLite? SQLite is a relational database management system contained in a small (~350 KB) C programming library. In contrast to other database management systems, SQLite is not a separate process that is accessed from the client application, but an integral part of it. SQLite is ACID-compliant and implements most of the SQL standard, using a dynamically and weakly typed SQL syntax that does not guarantee the domain integrity. SQLite is a popular choice as embedded database for local/client storage in application software such as web browsers. It is arguably the most widely deployed database engine, as it is used today by several widespread browsers, operating systems, and embedded

systems, among others.Web browsers like Mozilla etc. SQ Lite has many bindings to programming languages.

Features Of SQLite

1) Transactions are atomic, consistent, isolated, and durable (ACID) even after system crashes and power failures.

2) Zero-configuration - no setup or administration needed.

3) Implements most of SQL

3.3.5 Hardware Interfaces

There are three external hardware devices used by the proposedsystem, each related to a user int erface. These devices are thewireless tablets and the displays. All the devices must beph ysically robust and immune to liquid damage and stains. Thedevices(with the possible exception of displaysmust also havegood industrial design aesthetics, as they are to be used in placeof nor mal restaurant ables and notepads and will be in directcontact with customers. The devices be

have as 'terminals' sense that they never have a full system image, do not store dataand are not us ed for the core logic of he system. However, theyshould be fully capable tablets that can use textu al data from theserver alon with local UI/interpretation code to display UIelements and take i nput. All order and transaction records shouldbe stored on the server, not these tablets. The perf ormance ofdumb terminals over aarea the size of a restaurant is likely tobe unacceptable. In all the cases, the hardware deitakesinformation from the proposed system and processes t heinformation to display. It als providesinput information tothe proposed system.

3.3.6 Software Interfaces

We will require interface with a JSP/Servlet that stores theinformation necessary for our sy stem to operate. The JSP/Servletmust be able to provide, on request and with low latency, data concernigtherestaurant'smenu,employeespasswords) and available dietary requirements. Additi onally, it

hould take and archive data provided to it .This data will includerecords of all orders and transa ction(system states and statechanges) executed. JSP/Servlet must store all data such that it can be used for accounting, as well as accountability

3.4 User Classes and Characteristics:

The end-users of the DOSRUA fall into three primary categories, unskilled, partly skilled and highly skilled. Unskilled user: The users of the tablets at the table are walk-in customers and should therefore be assumed to have no relevant prior skills or education other than basic abilities to operate an automated system; no more complex than a mobile phone. Partly skilled user: The users of the tablets and displays are managers and chefs respectively and they should be able to use the system and further be able to train others with minimal training themselves.

CHAPTER 4: SYSTEM DESIGN ON FOOD ORDERING SYSTEM

4.1 Project Design

At the end of the system requirements collection, several relevant diagrams have been generated in order for the preparation of system model design. The design phase activities include the design of project architecture and graphical user interfaces.

System Evolution

As mentioned in the system model, at the heart of the entire ordering system is the database. In fact, the system could be completely operational using nothing but the database and an appropriate shell utility, assuming that all users are well-versed in SQL and enjoy using it to order food. While this would be a bit extreme, it does illustrate the point that the one part of the system which will stay relatively constant is the database. On the other hand, it is very probable that the other components will continue to evolve with time. For example, with the booming popularity of mobile applications, we would really like to make the web interface available as a phone application as well. Also it may make sense to at some point migrate the menu management and order retrieval systems to web, or even mobile, applications as well, as some users may prefer to use them as such.

we are also certain that if this system goes into actual use, many requests will arise for additional features which we had not previously considered, but would be useful to have. For this reason, we feel as though the application can be constantly evolving, which we consider a very good thing.

4.2 Project Diagram

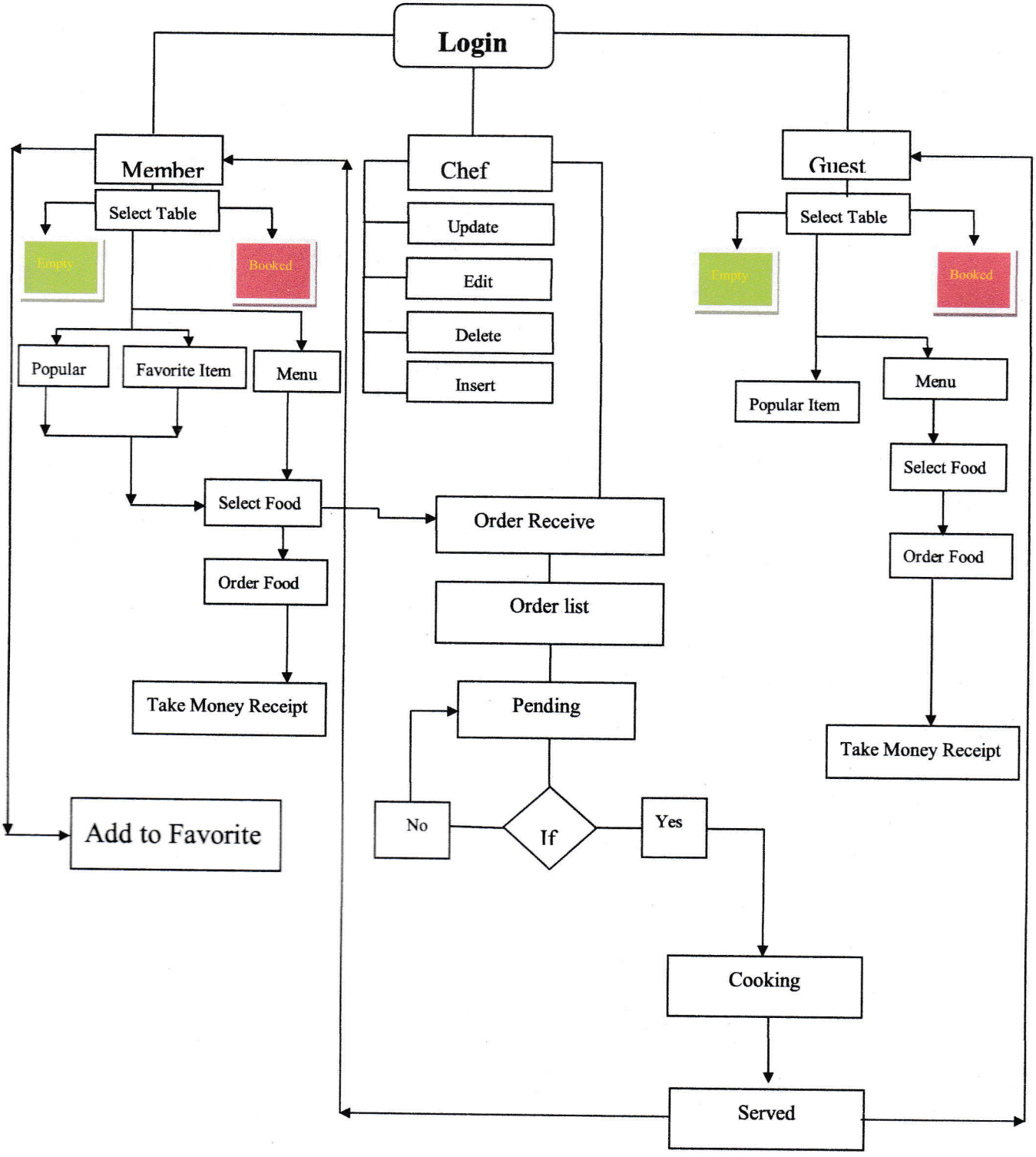

Figure:4.2:-Project Diagram

4.3 Login Form

Restaurant order Management System Login is used for define user, after authorized the user a user can used this software. Other-wise user will not allow using this software. Every user has to a unique password which will grant from authority, provide from this software.

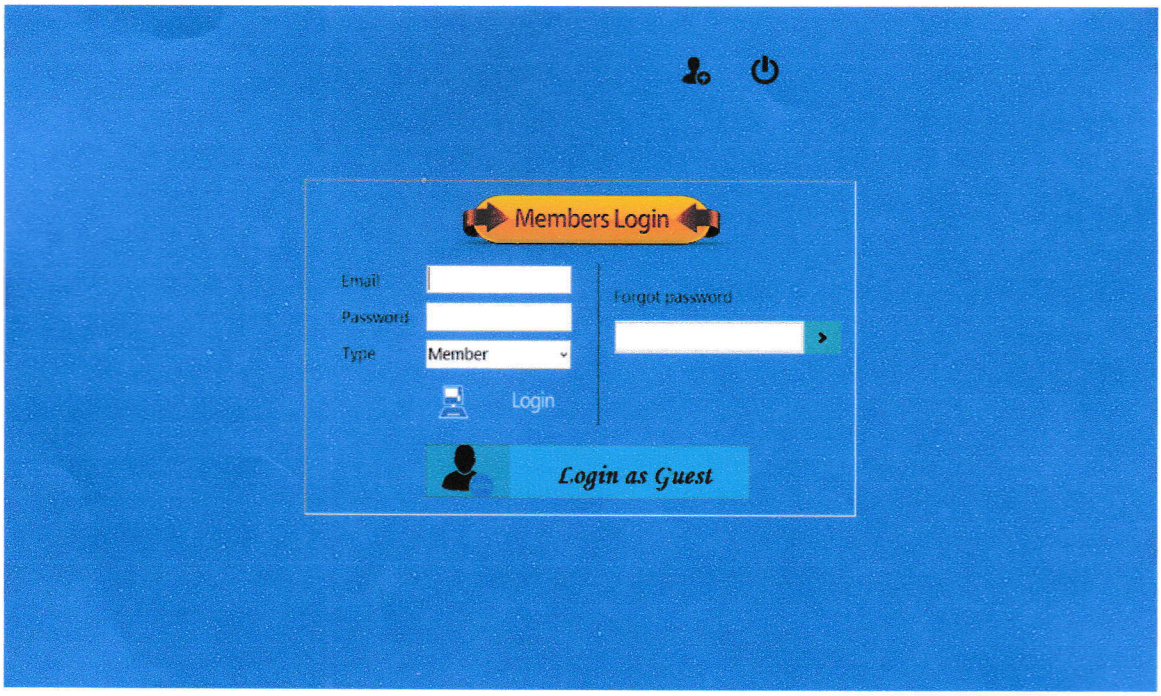

Figure: 4.3 Login Screen

1. Here we are user id and password match form the back end database after login and go to the next module.
2. Another part is very quantity and its individual and summation are also severed in database.
3. Information code also can used here if you it is needed.
4. Every document has the result with summery, details, it also passable to maintain the day ways or day over information results.