Customer's Order Management Application in Restaurants using Salesforce1 Platform

Priyanka Shinde[1], Sujata Patel[2], Saylee Naik[3], Gayatri Chavan[4]

Department of Information Technology, AISSMS IOIT, Pune,

Abstract- *Currently in restaurants, a waiter takes order manually and goes to kitchen to explain the cook to prepare food as per order. Once cook cooked, waiter gets it and serves the customer. Customer again orders next order, waiter again repeats the same and serves the customer. At last waiter submits bill and customer needs to pay it at counter. It is time consuming and manual task. It may make some human errors and affect customer service. It doesn't provide predictive analysis. The client's need is that there should be a centralized application that can bring all of its restaurant orders and automated order processing on cloud. This application proffers Automated System to make this task simple, and keep up to date information. This application will be developed on Force.com. This system provides prophetic analytics capabilities and keeps track of all orders by day, month and year etc. Force.com is a platform for developing and deploying Applications on Salesforce Cloud Data Centers.*

Keywords- Order Automation, Salesforce1 Platform, Cloud Application.

I. INTRODUCTION

In hospitality industry such as restaurants can be improved with the combination of wireless and mobile technologies. The competition in restaurant business have increased with the advancements in food ordering techniques. The prior food ordering system was entirely a manual process which involved waiters, pen and paper. The waiter had to note down orders from customers, take these orders to kitchen , update them in records and again make bill. Even though this system is simple it may involve human errors in noting down the orders. To rise above these limitations in labor-intensive traditional system some systems were developed later like automated systems and multi-touchable restaurant management systems to automate food ordering process[4].

This is Cloud based application developed on Salesforce1 platform. Salesforce1 is world's most challenging platform for cloud based application used by all types of industries. A model for software development and distribution based on the Internet. The technology infrastructure for a service, including data, is hosted on the Internet. This allows consumers to build up and use services with browsers or other than clients instead of investing in hardware, software, or maintenance.

II. IDENTIFY, RESEARCH AND COLLECT IDEA

A. Requirement of mechanization in restaurant area

The Hospitality industry especially the restaurant areas are gaining a intensifying importance worldwide as they have been sustaining the economy for decades. A manual process is the common procedure used for food ordering in restaurants. It involves the waiters make a note of the menu from customers, conveying the orders to the kitchen, serving the menu, and finally preparing bills. This process even though looks simple, is prone to human errors while note making & delays involved. So the customers finish up with an not good enough experience. Now days, people are fanatic about latest trends in technologies and automating their routine tasks. Assuming this reality and with an goal to improve effectiveness & reduce errors in conventional food ordering system, new technologies and approaches are introduced to automate the conventional food ordering process.

B. Related Work in Same Field

The wireless food ordering systems such as WOS [4], i-menu [3] FIWOS [2], are some them. These all systems are PDA (Personal digital assistants) based systems. In the PDA based system, the customers or waiters key in ordering process. When order making completes, these PDAs are to be collected by the waiters to be used by other customers. PDAs are small and portable devices. With wireless technology, the communication between the server and PDA is feasible [2].

C. Limitations in PDA based Order Processing Systems

Even though the PDA based system provided a better option to conventional food ordering system they possess some limitations:

1. A number of PDAs are to be prepared to serve the number of customers during peak hours. Thus increasing the restaurant expenditures [2].

2. PDAs do not provide provision to order from workplace. Thus the customer has to be physically present in restaurant to place order [5].

3. It lacks real time feedback between restaurant owner and customers [2].

4. Pose health problems as the PDAs are to be shared with public customers. If any customer is suffering from infectious disease like flu, then the other customers using the same PDA are exposed to similar health hazards.

5. The user interface consist only textual information. UI has become unattractive and uninformative due to lack of images [5].

D. Proposed Solution to PDA based system

To triumph over the limitation in PDA based system we proposed a automated food ordering system for restaurants using salesforce1 platform's platform as a service. It is a food ordering system using android devices or desktop. Android smart phones attract both the general and

commercial users. They attract commercial users by providing productivity tools such as E-mail, Word, Excel, Organizer and they also possess a virtual pop-up QWERTY keyboard for easy of typing[6]. They also attract the general users with their excellent features like music player, voice recording, still camera, video camera, games and internet browsing [6].

Android devices are extremely popular and have revolutionized the use of mobile technology in automation of routine task in wireless environment [6]. Android Smart phones have been viewed as essential devices to serve telemedicine services for various health problems, they are also used for home automation, Design security applications And Geographical applications. Motivated by the use of Android mobile OS in Health and other applications, we present the use of Android Devices in Business applications, namely the food ordering system in restaurants.

The Objectives of our proposed system are:

1. To automate food ordering process usingsalesforce1 platform' platform as a service.

2. Develop a centralized application that can bring all of its Restaurants orders and Automated Order processing on cloud with Analytics.

III. AUTOMATED ORDER MANAGEMENT APPLICATION
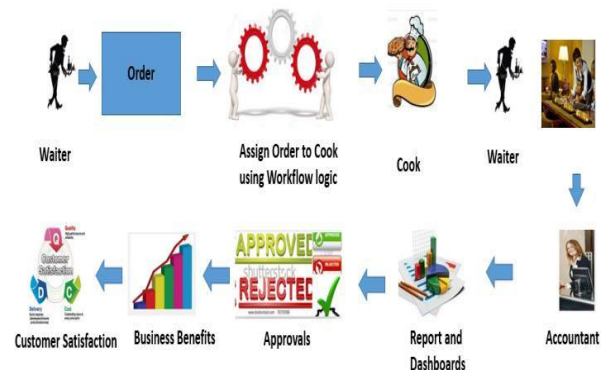
A. Design of System

Fig 1: System Design

We proposed to build an application that efficiently handle and manage various activities of restaurants. Currently in restaurants, customer places order to waiter and then waiter assign this order to respective cook. So every restaurant needs an employee for taking the order and processing the payment. Labor rates are increasing every now and then and it is difficult to find employees in the middle of the highway, hence to solve this problem we plan to design a this application. This application will be equipped with a user-friendly screen and complete the order process. When the customer enters the restaurant, he will place his order with the help of the screen using the intuitive graphical user interface, right from the selection of language till the confirmation of order. Customer will select from the food options according to choice and the system will display the payment amount he has to make once he has finished with order.

This system wake to provide service facility to restaurant and also to the customer. The services that are provided is food ordering, customer information management and waiter information management, menu information management and report. After the order is built and read, the user may go ahead and place the order. The staff will automatically and almost instantly be notified about the new order so that they can act on it. If the establishment allows, the user may even track the status of their order so that they know when to expect their food and drinks to land up on their table.
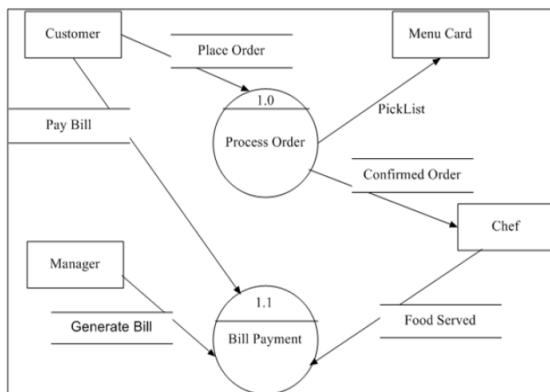
B. DFD For Purposed System

Fig 2: Data Flow Diagram

Figure 2 shows the Data Flow Diagram (DFD) of automated order management application. This gives a clear view of the entities and their corresponding functions and it also shows the relationship between entities.

IV. CONCLUSION

The expected output from this project is a system that will be able to store customer's information, waiter's information, menu's information, store customer information of ordering and reservation information and customer's suggestions and generate business report. This application offers Automated System to make order processing task simple, and keep up to date information. This system provides predictive analytics capabilities, can identify solution of each problems and keeps track of all orders by day, month and year etc. This application will give customer easy to make ordering and reservation table and hopefully can smoothen up the job of administrator and waiter.

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