ONLINE CANTEEN AUTOMATED SYSTEM

AUTHOR: Kirti K. Kamath[1] , Isha R. Yadav[2] , Uzma S. Shaikh[3] , Students and Ms. Shalmali Joshi[4], Lecturer

[1,2,3,4]*Department of Computer Engineering, Thakur Polytechnic, Mumbai, Maharashtra.*

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Abstract: *The Project is "Online Canteen Automated System" This paper is about a technology that provides quick ordering system inside the restaurant using restaurant's Wi-Fi and about providing internet access to the authenticated customers. As customer gets connected to the hotel Wi- Fi, a page will be displayed to enter table number for authentication purpose. During this time, he/she cannot access any sites other than hotel's menu page. A unique password will be assigned and displayed on the LCD display mounted on respective table. As he/she completes the authentication, the menu page will be displayed on his/her phone, through which the customer can place the order. As the customer selects the dishes, it will be stored in the cart, from which he/she can verify again and modify the quantity details and then place the order. After placing the first order the network will allow the customer to access other sites. This Application enables the end users to register online, read and select the food from e-menu card and order food online by just selecting the food that the user wants to have used android application. The results after selecting the food from the E-menu card will directly appear in the screen near the Chef who is going to cook the food for you.*

Keywords: Canteen Automation, POS, Food Order, Wi-Fi, Web page, Controller, Authenticate, Database, Networking.

1.INTRODUCTION:

Computers have become part of life for accessing almost any kind of information. Life in this century is full of technological advancement. The WWW contributes greatly to the creation of an ever-increasing global information database and technological growth. It could also be used as a method to share data within an enterprise. Nowadays importance is given to the wireless technology and automation system. To match the world's fast-growing scenario of emerging technologies there is a need for the innovative methods in every aspect of the life creating wide opportunities. Digital India campaign has been launched by the Government of India which aims at smart cities with the intension of binding every field with the smarter technologies. Earlier, costlier interface devices like touchpad's and PDAs (Personal Digital Assistants) were used, which makes installation costlier. Application based services needs to be pre-installed; this also annoys the customers with advertisements. Online ordering systems through web pages which require internet service in customer's device also proved inefficient in maximizing the ordering experience.

2.METHODOLOGY:

The proposed Online Canteen Automated System is a cost-effective solution for schools, colleges and companies. It is a cloud based cashless system which is predicated on RFID and e-wallets for transactions. Features of cloud such as auto-scaling, load balancing and pay as you go enhance the working of the system and largely solves the purpose of the proposed system. Our system will provide website and mobile apps which can be hosted on the cloud. The system should maintain an in depth account of all provisions bought and food served at the canteen. In addition to the present , it should also maintain the daily expenses incurred by the staff. Several inquiry facilities should even be provided to look at the expenses incurred/planned menus/cash payment etc. In case of large-scale institutes, companies, IT parks there are sizable amount of consumers who place an order at an equivalent time. The number of requests to the application increases. Normally due to large number of request the application may crash down. But thanks to load balancing of cloud easily tackles and eliminates this problem. The instances are often increased or decreased as needed . In case of centralized server system when there's less load there's wastage of resources. Large amount of capital is invested is invested in maintaining and upkeep of the servers even when the servers are idle. All records maintained in a canteen system is stored on the cloud. Migration of existing paper-based data is needed only once to the application in cloud. Cloud service provides backup of knowledge just in case of disaster. The card provided is an RFID based card which will hold the amount of the customer. Card number and customer's mobile number uniquely identifies a customer. Card is employed to put an order at the counter. In case of a loss or damage of the card can be instantly blocked by placing a request to the administrator or through the app or website. Facility of alert is also provided, the customer can choose the method whether SMS or alert notifications on the app so that it would be easy for customer.

3.OBJECTIVE:

Our objective is to form a platform independent application to take care of a database of all orders ordered from various sources and every one the various services required by each of them.
o Registration Order
o Payment
o Update

4.ADVANTAGES:

Completely automated online ordering of food in a canteen using a mobile application .

The Order can be placed using personal android phones. Food ordering pages and other pages that look and feel exactly the same as the existing restaurant website and other trending mobile application.

The User can also order a Special Combo Box which contains multiple food items.

Food ordering pages hosted on a secure and special server so no risk of customers getting redirected to servers where competitors' websites are listed.

Developed using the latest android programming protocols for server loads and ultra-fast loading and processing.

Simple user interfaces Admin Panel for creation and configuration of menu groups, menu items, etc.

5.DISADVANTAGES:

Requires an active internet connection.

6.APPLICATIONS:

This system can also be used in College and Schools Canteens, Restaurants, Cafeteria, Etc.

7.FEATURES:

a) **Load Balancing**
Since the system will be available only the admin logs in the amount of load on the server will be limited to the time period of admin access.
b) **Easy Accessibility**
Records and receipts can be easily accessed and store and other information respectively.
c) **User-Friendly**
The web application will be giving a very user-friendly approach for all users.

d) **Efficient and Reliable**
Maintaining the all secured and database on the server which will be accessible according the user requirement without any maintenance cost will be a very efficient as compared to storing all the customer data on the spreadsheet or in physically in the record books and files.
e) **Easy maintenance**
Canteen Automation System is design as easy way.

8. CONCLUSIONS:

The development of Canteen Automation System, Mobile Application involved many phases. The approach used is a top-down one concentrating on what first, then how and moving to successive levels of details.The first phase started with a detailed study of the problems and prospects of ordering in Foods. In the course of this study, many problems were discovered to have hindered the effectiveness of the existing manual system. These problems, information needs and activities were documented and later used as the basis for system design, which immediately followed the first phase. The design phase was concerned primarily with the specification of the system elements in manner that best met the organisation's business needs.

During this phase, strict adherence was made on proven software engineering principles and practices. To implement this design, a computer program was then written and tested in Visual Studio .Net environment.It is hoped that effective implementation of this software product would eliminate many problems discovered during systems investigation.

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