

SMART MENU SYSTEM

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Abstract : In traditional ways we used to go restaurant and order the food at restaurant after which food is prepared and served to us. Which consumes some of amount of time. Communication field has changed rapidly, and an appropriate condition has been created to use this capacity in business due to developing technology in field of information technology and availability of tools to work with this technology. the arrival of smartphones to market and its expansion which provides the capability of connecting to internet with desired broadband. We have tried to design the system to be able to provide more advantages including online menu system in restaurants and electronic payment of bills as well as entertainment facilities in the time between ordering and delivering the goods to customers. Moreover, in this new model, there will be the possibility of online-based items ordering and bill payment will be through bank portal. Hence the project is developed proficiently to help restaurant owners automate their business operations. This project serves the best way of maintaining customer's information and caters their needs. The best way to optimize these activities is growing the business online as well. Today's generation encourages our project is to prepare an application which will allow users to order food online before going to restaurant the customer is able is able order is food that food is prepared and ready to serve as they reached the restraunt. This app saves lot of time for the user, there is no need to wait for food preparation. So users can enjoy food as they reach the restaurant without any waiting.

Index Terms - Android ,cloud databases, GSM

I. INTRODUCTION

In our project main thing the customer is able to order online before he/she goes to the restaurant next step is to pay the bill. This is made possible through the use of electronic payment system .The payment can be done through the customer's credit card ,debit card. So, in this project we design a system which will allow customers to go online and order food. This has raised the demand for distributed computing to provide remote storage. This system is using cloud storage device to provide remote storage or network attached storage over cloud.

One of the businesses that the internet introduced is an online food ordering system. In today's life many restaurants have this dis advantage to prepare the food when the customer order the food rather than offering a rich dining experience. Recently, most of this food orders were placed over the phone, but there are many drawbacks of this system. It is possible for everyone to order any goods from anywhere via the internet and have the goods delivered at his/her home.. In other words, how possible is it to pay for goods and services via the internet? This then leads to the discussion of the economic consequences of digital cash. What are the implementations from the view point of economic? Since the world is fast becoming a global village, the necessary tool for this process's communication of which telecommunications a key player. A major breakthrough is the wireless 2 telephone system which comes in either fixed wireless telephone lines or the Global System of Mobile communication(GSM).With the rapid development of information technology, web application and Android application have been increasing in recent years. Compared with the desktop application, the advantages of android application.

II. SCOPE OF THE PROJECT

The main objective of this project is to avoid the time while we are in restaurant during the food preparation. This project will help to save your time when you want to restaurant .Waiters are able to perform all actions that the table system normally handles via their tablet PCs, so in the event of a customer being unable to operate all these action at a time , the waiter can handle orders traditionally while using retaining the accountability and logging functions of the system, and retaining the same channel of communication with food.

III. OBJECTIVE

- The project aims to provide restaurant menu cards in the form of an app. This is can prove to be a better alternative to the traditional menu card .
- This digital menu card will provide a smooth user experience through simple and flexible user interface.
- The project also helps in cutting costs of printing multiple menu cards and also helps in maintenance and updating of the menu card by the restaurant .

- Thus, this digital menu card app will be a more economical and an easier , simple and efficient way to manage menu cards of restaurants.

IV. LITERATURE SURVEY

Table 1 survey about the proposed work.

The above tabular column shows the detailed survey about the smart menu system . Even though more number of research works was carried out in the past for smart menu system but the quantification of the system is very less. Only limited numbers of research works were carried out related to the clustering.

Name of the author	Title of the paper	Publications / year	Concept	Advantages	Disadvantages
Bhaskar Kumar Mishra, Bhawani Singh Choudhary, Tanmay Bakshi	Touch Based Digital Ordering System on Android using GSM and Bluetooth for Restaurants	IEEE / 2015	Using android device, through this system, we aim to make a system that is convenient to use from both the customers, and the restaurants point of views and automates the food ordering Process in a cost effective way.	Uses touch based ordering system with android based system which is commonly used operating system around the world.	Requires every restaurant to purchase the required modules such as Bluetooth and wifi receiver as well as touch based controller.

Kunal Gupta, Stuti Saxena,.	Design and Implementation of Wireless Menu Card	IEEE/2015	This system is focusing on ordering process of food outlets. In conventional food outlets the customer has to do self-service i.e. the customer will need to go on to different outlets as required, place the order.	Uses 3Generation, 4Generation and Long Term Evolution (LTE) based services to create an environment such as M-Commerce	Requires constant internet connectivity to power and connect to the WiFi storage device in order to place an order.
Ni Hao, Ruan Ruolin, Yao Huan,	An Economical Wireless Ordering System	IEEE/2017	The ordering information is processed by the ordering control chip	Single-chip Microprocessor (SCM) MSP430F149 is	This system is not economical but reduces the cost of the management
Wu Aixia	Based on Bluetooth Technology Fuzzy Logic		which is a Singlechip Microprocessor (SCM). Then the SCM reads the data in the memory card and send it to the wireless transmitting part to get ready for the wireless communication. The receiving part gives the wireless signal to the SCM in the kitchen. In the end, the ordered dishes are displayed in sequence on the LCD display of the kitchen.	employed to form the minimum system. A TFT touch screen with a memory card is used for the customers to order dishes. The Bluetooth serial port is used to establish the wireless communication .	staff of the restaurant. Microprocessor (SCM) requires high maintenance and power input in order to function efficiently.

Guiling Sun ; Qingqing Song	Design of the Restaurant Self-Service Ordering System Based on ZigBee Technology	IEEE / 2016	Design a self-service ordering node including its software and hardware. The touch screen displays the taste and prices of the food for customers to input their orders directly by touching. The system automatically completes data receiving, storage, display, and analysis.	The proposed system compared with the traditional food enterprise management mode, wireless self-service ordering management information system realizes the intellectualized and information restaurant management.	This system requires ZigBee Software & Hardware for the functioning of the system. Hence, this system is operating system and hardware dependent and cannot be used with various devices universally.
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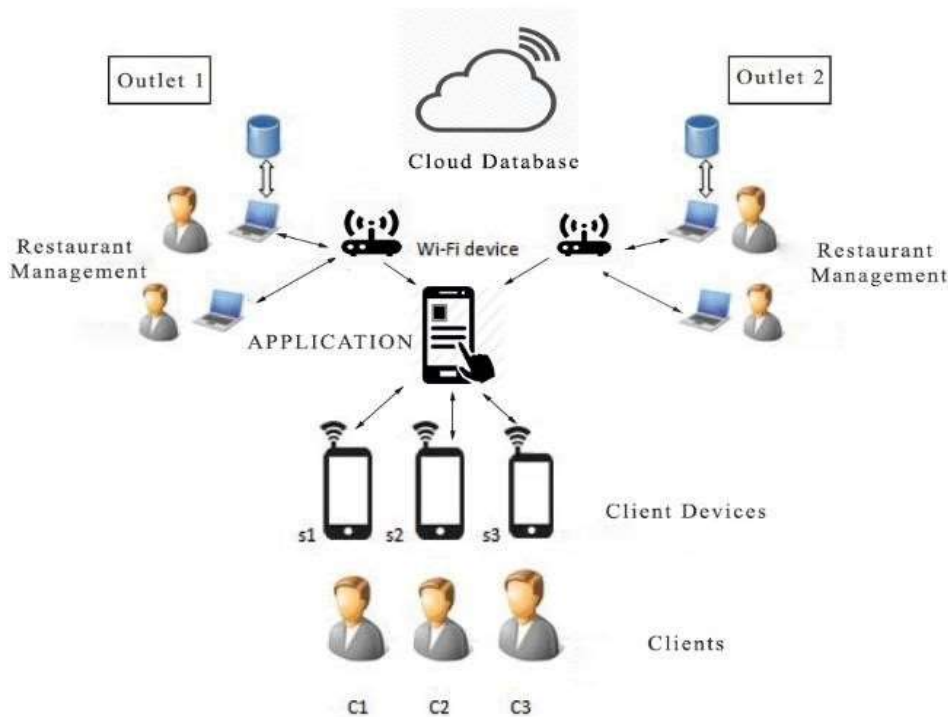
V. PROPOSED SYSTEM

This method will be used each restaurant which allows customers to order by using online smart menu system using smartphones and tablets. However, the time between ordering and delivering is very important in terms of management. If the customer has order before the 20 or 30 minutes is easy to prepare the food without wasting any time, then the customer is very happy. The benefits of electronic payments better and easier management of restaurant. avoid congestion on the counter payment Ability to reduce the work force, such as the removal of cashier prevent errors in billing.

VI. ADVANTAGES

This proposed system provides the smart solution for online food ordering system .so this reduces human effort and time. Smart menu system . This system is effective, low cost and user friendly.

VII. ARCHITECTURE



We have three components here:

- User Interface
- Admin Interface
- SQL Shell JDK
 - Through UI user input queries for creating and manipulating table content.
 - JavaScript for interactive UI (Java application layer).
 - A Database get created for user through MySQL.

PHPMYADMIN communicates with SQL shell and get feedback from it which is displayed on screen.

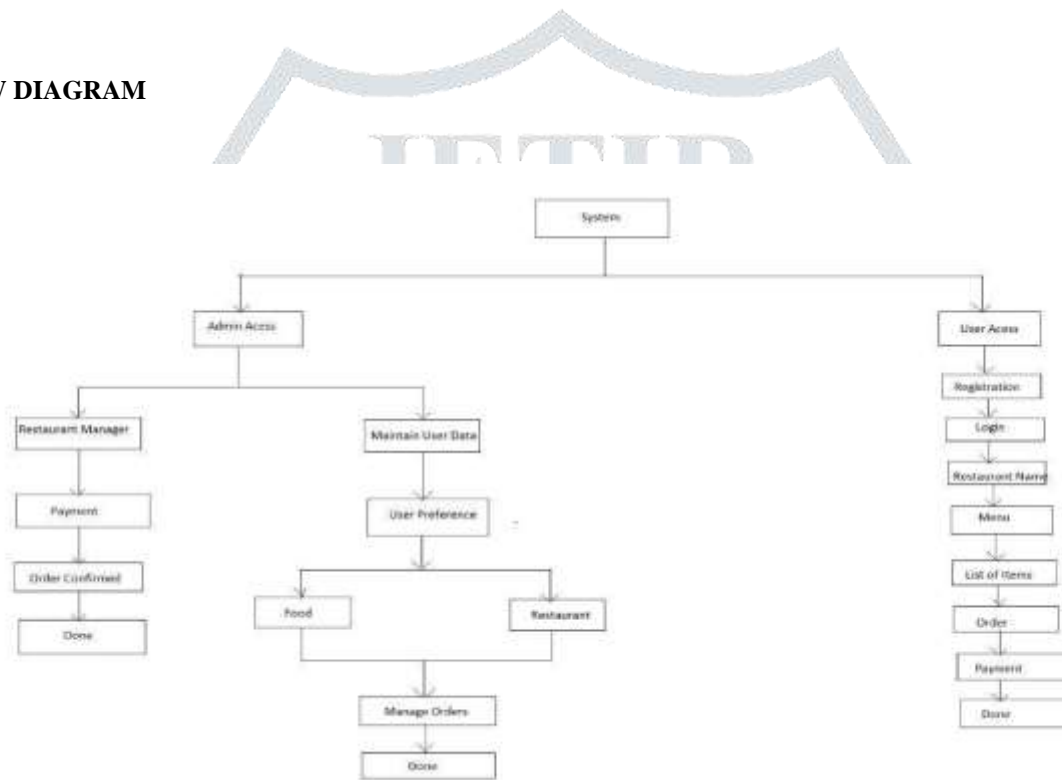
VIII. MODULES

The system will be comprising mainly of seven modules:

- **Registration Module:** It is used for registration purpose in the smart menu system for new users, so that the user can register and create their account for ordering food online before going to restaurant.
- **Login module:** The users who ever registered for food ordering system can login to application to choose a restaurant and order food online.
- **Admin Module:** In administrator module owner can access the data of the registered users. Administrator keeps track of the registered users. He has full rights and control on data.
- **Restaurant Module:** Restaurant module consists list of various restaurants in various cities and various places, so that user can choose a restaurant of his choice and order food before going to restaurant.
- **Menu Module:** Menu module consists of various food items categorised into different types in the restaurant chosen by the user, menu is classified into veg, non-veg, starters, deserts, main course, etc., so that user can choose food easily.

- **Order Module:** Order module consists of the food items selected by the user and their price, it also consists of total amount to be paid.
- **Payment Module:** Payment modules consist of various payment options such as credit card, debit card, money wallets,

IX. FLOW DIAGRAM



X. ALGORITHM

net banking, UPI, etc., so that user can choose convenient payment method to make the payment for his order.

1. LOGIN MODULE:

LoginPage(bool truth_value)

Input: user_id, password

Output: MainPage_UI(user_id)

```
{  
  if (truth_value == true)  
  {  
    MainPage_UI(user_id)  
  }  
else  
  {  
    exit()  
  }  
}
```

- Two text fields:
 1. User Id or User name.
 2. Password for the account.
- User gives input for the two text fields for logging in.
- If user logging is successful, the user is directed to the MainPage_UI, else login fails.

2. MAIN PAGE MODULE:

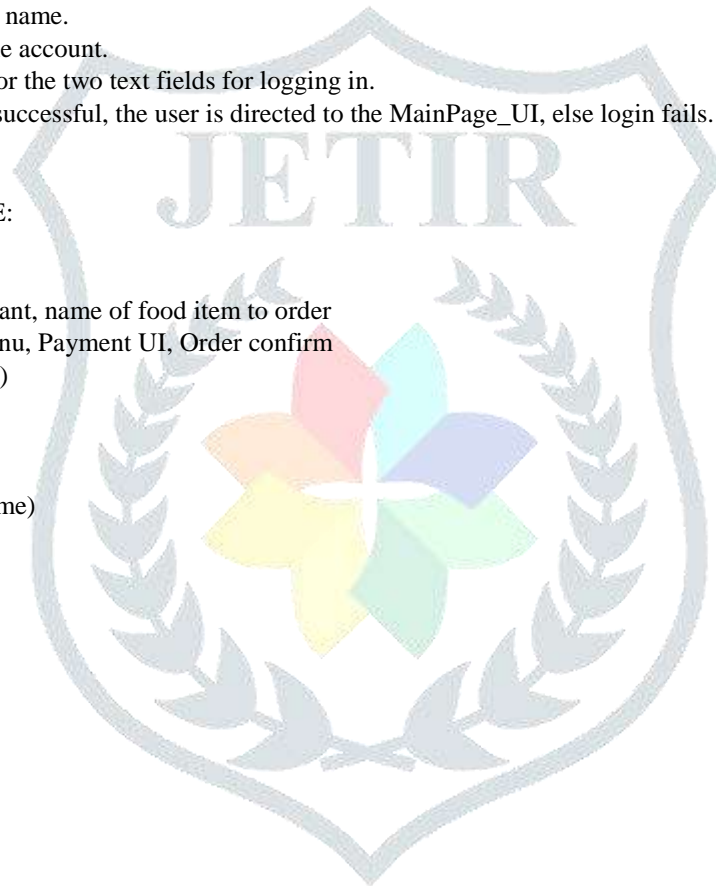
MainPage(user_id)

Input: Name of restaurant, name of food item to order

Output: Restaurant menu, Payment UI, Order confirm

Search_rest(rest_name)

```
{  
  Input:rest_name  
  Output:rest_menu  
  Search_food(food_name)  
}
```



```

Search_food(food_name)
{
    Input:food_name

    if(Payment_success(pay_amt))
        Confirm_order(order_id, success)
    else if(Payment_fail(pay_amt))
        Confirm_order(order_id, fail)

    Confirm_order(order_id)

    Orderconfirm_success(order_id)
    Orderconfirm_fail(order_id)

    User selects the restaurant name, corresponding to the Restaurant name, Menu is generated.
    User selects a food item from the menu.
    User makes the payment.
    If payment is success, the order is confirmed.

    Payment(pay_amt)
    Confirm_order(order_id)
}
Payment(pay_amt)
{
}
{
if(success)
else
}
.
.
.
.

```

XI. CONCLUSION

This project is a big leap for the hotel industry into modern 21st century tech. This will greatly improve and simplify the task of ordering food through the app. The app will have a great UI and the ordering of food will be made very easy. This will also help in making quick payments through net banking provisions within the app. Once successfully implemented it will save costs for

the restaurants and attract customers by proving lucrative prices for foods on the menu. This app will be of great benefit for the people as they can browse through the menus of restaurants from anywhere. They menus will also have realtime updating so any changes in the menu from the staff will be available to the users as well. The app will benefit both the customers and the restaurant staffs and completely change the old method of ordering through paper menu cards.

This app has great potential to make a big change in the hotel industry. This will completely change the way people order their food while at restaurants. Currently this app is capable of having the menu of a particular brand of restaurants. But it can be made to encompass the menus of all the digital menus of hotels and restaurants, all in one place. This way the customers can easily browse through the different menus of a variety of hotels and choose the right dish. This expansion to hold the menu details for all the hotels is the true potential of this app. This feature can be added in future along improvement in quicker and simpler responsive ui. This way the app can become a great product for the customers and completely change the way food is ordered and the industry is operated.

XII. REFERENCES

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