CLOUD BASED CALORIE CONSUMPTION REPORT GENERATION IN CANTEEN ORDER SYSTEM

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Abstract- The purpose of this project is to develop cloud-based calorie consumption report generation in canteen order system that enable the customer to put their order at anytime and anywhere. The rationale to develop the system is thanks to the problems facing by the food industry. Some issues are like peak hour-long queue issues, sometimes thanks to wrong order was written by waiter, increase of removing foods than visitors, speed major requisite of food preparation, limited promotion and advertising on current strategy, and internal control of food management issues. This application will contain differing types of food varieties available for the user to shop for. The system also allows to quickly and simply managing menu which customers can browse and also predict what proportion is spend on food, and use to put orders with just a couple of clicks. Canteen owner / employees accept these orders through online a simple to trace / dispatch orders for efficient delivery of food. Therefore, besides that, it provides a user-friendly food searching menus and also calculates the precise price of that selecting food items from menus before they place final order. Also, system generate calorie consumption report and nutrition report.

Keywords- Cloud computing, Password, Food Order, Calorie Consumption, Android based

I. INTRODUCTION

In traditional canteen food ordering system, customers or users face many difficulties and problems like security of account details, problems with manual working etc. In manual working when taking an order for customer, the order taking canteen staff might miscalculate the entire of order. Besides, the staff also must remember whom, whose orders belong to otherwise there'll be confusion, the target of the Canteen Order website is to beat disadvantages of the normal ordering system. This paper provides a summary of latest techniques utilized in Canteen Ordering System like cloud computing.

This system provides user ID and password for secure access from server side. It provides Calorie report back to the customer with reference to their daily orders. The user can give order for quite at some point like as two day or five day. For fast access, it sets priority of food items within the order list and supply to the customer as per their convenience. It also provides frequent order list to customer with their daily calorie report as per their daily order. It displays calorie consumption report of whole month and provides alternate solution to
burn the calories like walking, cycling, exercise and swimming.

In todays age of fast canteen automation within the canteen, many canteens have chosen to specialise in quick preparation and speedy delivery of orders. Until very recently, all of this delivery of orders were placed over the phone, but there are many disadvantages to the present system, including the inconvenience of the customer wanting to have a physical copy of the menu, lack of a visible confirmation that the order was placed correctly, and therefore the necessity for the canteen to possess an employee answering the phone and taking orders. the most advantage of our system is that it greatly simplifies the ordering process for both the customer and therefore the canteen. When the customer views the ordering website or app, they're presented with an interactive menu, complete information with all available menus and prices supported the options. After making a variety, the item is then added to their order, which the customer can review the small print at any time before finding out. This provides easily and instant visual confirmation of what was selected, this technique also greatly lightens the load on the canteens end, because the entire process of taking orders is automated. Once an order is placed on the app, it's entered into the database then retrieved, in just about real-time, by an android application on the canteens end. Within this application, all items within the order are displayed, along side their corresponding options and delivery details, during a concise and straightforward to read manner.

II. LITERATURE SURVEY

Wenting Shen, et.al., developed Enabling Identity-Based Integrity Auditing and Data Sharing with Sensitive Information Hiding for Secure Cloud Storage proposed the security analysis and the performance evaluation show that the proposed scheme is secure and efficient the security proof and the experimental analysis demonstrate that the proposed scheme achieves desirable security and efficiency. [1]

J. Sridhar, et.al., developed Enabling Cloud Storage Auditing With Verifiable Outsourcing of Key Updates Image net Classification with Deep Convolutional Neural Networks proposed Key-exposure resistance has always been an important issue for in-depth cyber defense in many security applications and Recently, how to deal with the key exposure problem in the settings of cloud storage auditing has been proposed and studied. Limitation: Data Auditing is difficult. [2]

V. Goutham, et.al., published Enabling Cloud Storage Auditing with Key Exposure Resistance this paper proposed It is investigated on how to reduce the damage of the clients key revelation in cloud storage auditing and provide the first handy elucidation for this new problem setting. Formalized the definition and the security model of auditing protocol with key-exposure resilience and propose such a protocol. Limitation: In this project, there is a Key exposure problem. [3]

Giuseppe Ateniese developed Scalable and Efficient Provable Data Possessio this paper proposed
Storage outsourcing is a rising trend that prompts several interesting security issues, many of which have been extensively investigated in the past. Provable Data Possession (PDP) is a topic that has only recently appeared in the research literature. The main issue is how to frequently, efficiently and securely verify that a storage server is faithfully storing its clients (potentially very large) outsourced data. Limitation: Cannot remove redundancy. [4]

Kui Ren et. al., published Security Challenges for the Public Cloud this paper developed for we outline several critical security challenges. Point out their importance, and motivate further investigation of security solutions that will help a trustworthy public cloud environment become a reality. [5]

III.EXISTING SYSTEM APPROACH

In existing system, it's paper-based system. during this system all records of foods are stored on paper. the foremost drawback of this technique is papers can get easily lost or damaged. there's also wastage of cash, time and paper. Paper-based systems don't provide any quite dynamicity. Even a little change requires the re-print of entire menu-card. Also, batch of human efforts is required, this technique isn't work properly because it's some error and from a customers point of view it's time consuming.

for putting any orders customers need to visit canteen counter to understand about food items then place order and pay. during this method time and manual work is required.

While placing an order over the phone, customer have the physical copy of the menu item, so that of visual confirmation that the order was placed correctly.

Every canteen needs certain employees to wish the order over phone or in-person, to supply an upscale dining experience and process the payment.

IV.PROPOSED SYSTEM APPROACH

Our main aim is to extend the efficiency of the food ordering and reduce human errors and supply high-quality services to the purchasers of the canteens. the appliance on the tablets must be ready to communicate with the opposite devices. As shown in fig below, firstly the customer or visitor will open the mobile app and view for food item menus from the available menus the customer. The customer sees the categorized menu card on the android app consistent with their own category. the choice of food items is completed by an individual if he/she visiting our application with or without login and registration module.

If the login isn't done then the appliance will force the customer to login first before ordering something.

For performing all activities within the project, we'll create one database consists of any particular local areas all restaurants listed along side their daily food items and costs. Once completing login task, the customer will place an order from his searched. If condition satisfies then admin transmits data about the order to the actual restaurant. At last, the waiter boy will give delivery within estimated time thereto customer. If there's a requirement for modification within the food menu, the admin modifies the menu. The menu gets changed within the database. The updated menu then views to the customers Android
device. Admin will recommend calories report, suggest nutrition report and notify after food is prepared. After eating admin or owner make invoice or bill of customer and customer pays money. Canteen owner or admin view all details of canteen order system admin and customers details.

Fig.1 Block Diagram of Proposed System

V. ALGORITHM

1. Start
2. Customer Register to system first with details.
3. Staff Admin, Customers or users and System Admin are login into the system.
4. System Admin add food details like food item name, price, etc.
5. Customer view food items with details and order food according to their need.
6. Staff admin view order details accept it.
7. According to next formula calculate the calories by system.

\[ C_1 = \frac{F_1 \cdot \text{calorie} + F_2 \cdot \text{calorie} + \ldots + \text{Fin. calorie}}{N(n)} \]

8. Customers pay bill and system admin gives calorie report in that.

Naive Bayes Algorithm: -

Naive Bayes is a probabilistic machine learning algorithm that can be used in a wide variety of classification tasks. Typical applications include filtering spam, classifying documents, sentiment prediction etc.

In our system classifying the foods like snacks, dinner, lunch.

In snacks Wada pav, bhaji, etc classified in bhaji onion bhaji, potato bhaji, etc.

Pseudo code for Naive Bayes:

The Naive Bayes classifier selects the most likely classification \( V_{nb} \) given the attribute values \( a_1, a_2 \ldots a_n \). This results in:

\[ V_{nb} = \arg \max_{v_j} P(v_j) \prod P(a_i | v_j) \]  

Estimate \( P(a_i | v_j) \) using m-estimates:

\[ P(a_i | v_j) = \frac{nc + mp}{n + m} \]  

Where:

\( n = \) the number of training examples for which \( v = v_j \)
\( nc = \) number of examples for which \( v = v_j \) and \( a = a_i \)
\( p = \) a priori estimate for \( P(a_i | v_j) \).
\( m = \) the equivalent sample size.

1) Read attributes and class of the data set.
2) Calculate the posterior probability of each attribute to an existing class.
3) Calculate the probability prior of existing classes.
4) Calculate the multiplication value of the posterior probability of each class and the value prior to all existing classes.

5) Find the greatest probability value in step four as the final classification.

VI. MATHEMATICAL MODEL

- Identify the inputs $F= f_1, f_2, f_3, \ldots, f_n$ as set of functions to execute commands.
- $I= i_1, i_2, i_3$ Sets of inputs to the function set
- $O= o_1, o_2, o_3$ Set of outputs from the function sets,
- $e = \text{End of the program.}$
- $S1= I, F, O$
- $I = \text{Query submitted by the Customer, i.e. query}$
- $O = \text{Output of desired query, i.e. how many customers are register in system and order the food.}$
- $F = \text{Functions implemented to get the output,}$

Output:

$O = \text{Represent the food will order, purchase, pay bill etc.}$

Where,

- $U=\text{Customers, Admin, Staff Admin}$
- $R=\text{Order food, Customer bill}$
- $U1=\text{Right register id and password Query}(R1)$
- $U2=\text{Right result Query (R1)}$
- $U3=\text{Wrong id and password Query (R2)}$

VII. RESULTS
VIII. CONCLUSION

Therefore, the need for canteen ordering system application is analysed and its advantages over the traditional food ordering system in canteen are studied.

The proposed canteen ordering system is time-saving and errors free as compared to the traditional system.

The proposed system would attract customers and also adds the notifications generation and recommend calories report on food item so increase the use of canteens.

The canteen ordering application can handle the billing hence it is the modern way to grow up the business using E-commerce. Here implementation of an advanced e-restaurant menu ordering system using the smart android mobile phone.

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