E-Wallet Based Canteen Management System

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Abstract:- Due to overcrowding at college canteens, waste of time is a very common issue faced by the students and staff. Sometimes there may be a possibility of misplacing the order or the payments may remain pending as the customer may leave without taking order due to time issues which results in reduced customers and wastage of prepared food. So our project will help all the students, staff and the canteen owners by reducing the time taken by order. With the help of our project, one can order their food online at their own pace and the users have to book their food on the e-menu card. As soon as the canteen owner gets the order, they will start preparing it. After the preparation of the food, the users will get a notification. In the proposed system the payment is online and the users have to recharge their e-wallet on the weekly and monthly basis.

Keywords:- E-wallet, E-menu, Website, Android Application.

I. INTRODUCTION

This system will contain an E-menu card for ordering purposes. The user and the canteen owner has to create an account, initially for the utilisation of the service. It will provide the list of different shops/ canteen and their various items from the menu list. The customer can select the desired items and can pay the amount online through E-wallet. Immediately after receiving the food order request from the user, the canteen workers will start making their order. After successfully making the order, the shop owner will send a notification of "order completion" to the user. The existing system creates crowd gathering because of long queues and labour requirements. In the proposed system, there is no need for paperwork. The whole storage will be done on the database. The food will be ready in advance and the customer need not wait near the delivery place. Hence, the digitalisation of the canteen system will be helpful in providing better service to the users and the time consumption will be reduced and this will overcome the problem of wastage of food. The languages used are HTML, CSS, JavaScript, SQL, Python(Django), Java(Android).

Initially, the canteens/shops will be entered by the admin. Then the menu will be entered by the canteen owner along with the price. The user can select particular items of their own choice.

Updation and the deletion of the items can be done by the canteen/shop owners and updation and deletion of the canteens/shops can be done by the admin.

The online system will be helpful for the canteen/shop to prepare the food as early as possible. As a result, there will be quick service to the customers. No queues can be formed during the waiting time. The database updates will be monitored by the admin.

II. RELATED WORK

The existing system for the proposed model is a paper based system. It is the most widely used system since the existing system is paper based, all the calculations have to be done manually and data can be easily manipulated. However, this system has various troubling problems. In a paper based system, paper is used for taking orders, generating bills and records are stored in registers. Hence there is a maximum chance of loss of papers and the valuable user's details. The payment process takes a lot of time to be done. Order records have to be stored in registers for totalling and verification purposes.If in case of loss of papers, data recovery becomes very hectic. A large amount of man power is required in this system and human errors have to be considered when taking orders. Due to this problem the manual system is less efficient.

Proposed System

To overcome the limitations of the Paper based system, we are putting forward this cross-platform application for the canteen food ordering system. There are the following modules in our system.

1. **Admin:-** The main role of this system is that of Admin who can add, delete and update the data related to the canteens, their owners and their workers as well as the data related to the users. The further sub-modules are:-

- **Add/Delete Canteen :-** The admin can add the new canteen and update all the data related to the owner and their workers in the main database.
- **Can hear complaints :-** The complaints related to the canteen and their food, the admin can have a look on it and can take necessary actions.

2. **Canteen:-** The access of this module is given to the canteen owner, where :
- They can add the food items with its details in the menu card.
- They also have the credits which are going to be deposited in the user's E-wallet after receiving the payment.
- They will notify the users after the preparation of the food.

3. **Users:-** The users will be able to do following tasks:-
- Can go through the menu.
- Can order food from their favourite canteen.
- Can make payments through E-wallets/Cash.
- Can register their complaints in case of any issue.

Implementation

1. **Admin:-** The admin will be able to handle almost all the things like adding a new canteen to the database, deleting an existing canteen, updating the number of canteens as well as the number of workers working in the canteen. Admin can also hear the complaints raised by the students and the canteen owners.
2. **Canteen:-** The canteen has the permissions for the maintenance of the menu and the list of the items to be updated. The control of the menu will be completely handled by the canteen. Initially, the items are entered by the canteen owner to the list. Then they are added to the cart which is nothing but the E-menu card . The account of the canteen is managed by the Admin. The menu card will be monitored by the canteen owner. The data of the canteen will be stored in the database.The functions of the canteen are restricted by the Admin. The entered items are checked and then verified by the canteen owner. The data of the accounts information will be managed. Admin, canteen and the users can view the list containing item details like price and ID. This will help in monitoring the actions of the canteen. It provides easy access to the menu card to the users and the listing of the items can be done.
3. **User:-** Initially, the user has to create the account to the database by providing their personal details. After the registration process, the user can login/logout from their account at any point of time. Users can view the menu and add items to their cart, view their profile, view transaction history and raise complaints. Payment can be done in two ways firstly through E-wallet and secondly through cash to the manager. Once the user confirms the order, the canteen database will be updated automatically and their espective orders will be received at the canteen end along with the users information. Specified amount will be deducted from the user's account and a bill will be generated.

Users will receive a notification on the phone when their order will get ready. After receiving the notification, the user can come and collect their order from the counter.

III. CONCLUSION

The proposed system of the canteen management system will target the services in a college. All data accesses are authenticated by providing valid login credentials. This work can be further improved by adding some unique features to the mobile as well as website application.

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