IT-632-Software Engineering

Cafeteria Management System (Cashless Canteen)

Feasibility Analysis Version 1.0

Team-2

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1. Project Specification/Overview

The project is about developing an online web portal which facilitates quick, less erroneous, accountable and cashless transactions in the cafeteria at DA-IICT. Every student, faculty and rest of the staff need not to carry any cash to cafeteria for buying food, what they need is just to show their Id card to the cafeteria person and Bam!, you are done.

Every user can deposit a certain amount of money to his/her account through Head Cashier (supposed to be any CMC member and acts as an admin), and the same money would show up on his/her account in no time. After having got the balance in the account, the user need not worry about cash or even carrying a wallet down to cafeteria, what he needs to carry along is just the college Id card to buy food. The amount of the food would be debited from the user's account and would be credited to the appropriate canteen's account. The canteen owner than can collect the amount from the Head cashier on a decided time.

The main idea and motivation behind developing the Cafeteria Management System is to eradicate the cash problems that all the students and even the canteen owners are facing in the current ongoing scenario.

2. Feasibility

2.1 Technical feasibility

I. The project is supposed to be a web portal so we would majorly be dealing with HTML, CSS, JavaScript and JQuery.
II. The back-end or the server-side scripting language we will be using is Java which is a popular and highly used open source programming language. So, we would be getting help and learning new concepts from various forums regarding the java language.
III. We are planning to explore and work on Struts 2 application framework for Java web development, which is also very good documented and highly renowned.
IV. The database that we are going to use would be either MySql or PgSQL which are both open source.
V. We need to give more emphasis on the security issues of the application as money is involved.

2.2 Financial feasibility

I. The tools required to develop the application are largely open source so there would be no cost involved on the software side of the project.
II. The main cost would be of the computer hardware that needs to be installed on each canteen counter to facilitate computerized transaction.

III. Some efforts would be needed to give a hands-on training to the canteen staff and even to the student community as to how the system works and how to deal with the computer systems.
IV. The server space required to host the application and to store the data is a cost that should not be overlooked.
V. But all in all, the project is aimed to reduce the difficulties the users are facing in the current scenario and the computer hardware investment is only a one-time issue. So the project is financially feasible.

2.3 Scheduling feasibility

I. We'll produce a detailed timeline for various project milestones in our project proposal. As per our preliminary estimates of technical knowledge to be acquired and person hours per week, we believe the project would be completed within three months.

2.4 Operational feasibility

I. The application we will develop - Cafeteria Management System, would operate as smooth as any other normal website on the internet, but the main difference here is it would be hosted on our college's local server so that the application can only be accessed within the DA-IICT campus.
II. The security issue would be very professionally handled to preserve the authenticity, reliability and integrity of the application.

3. Cost Benefit Analysis

3.1 Costs

- Separate Computer systems would be required for each of the canteen.
- The time spent on training the students and the canteen members would prove to be a bit costly.
- Server space would be needed to host the web application.
- The amount spent after developing would be closer to zero as the technologies used are all open source and free to use and the students.

3.2 Benefits

- The users can take benefit of the cashless system and have accurate data as to on which canteen he/she spends what?
- The user can even get previous accounts/bills of the items purchased from the canteens and would help him track his food expenses.
- The canteen owners can even keep their daily menu on the web portal showing the dishes available on the daily basis.
- The user can even transfer funds from his account to another person's account within no time.
- He can have the list of all the transactions he has done till date whenever he wants.
- The User can also pre-register for a certain day in the canteen to get some monetary benefits which are negotiable.

4. Conclusion

As per the feasibility analysis furnished above, we conclude that the project is perfectly feasible, and would be of benefit to all of the student, faculty and canteen community. There would always be a win-win situation for both the buyers and the canteen owners. The problem of change would be vanished and better at the same time robust and organized system would come into existence that would ease many problems related to cafeteria.

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