

Cafeteria Management System (Cashless Canteen)

High Level Design Document

Version 2.0

10October, 2013

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DA-IICT, Gandhinagar

Overview

This is the high level design document for the system of DAIICT's cafeteria. The first part gives a brief description of the project topic. The second part is the overview of the design of the software. The third part is the system components which contain the database table and the detailed description of the modules.

Target Audience

Software Developers

Document Revision History

Version	Author(s)	Description	Reviewer(s)	Date
1.0	<ul style="list-style-type: none">• Primary Authors: Jay, Dipen• Database Tables made by: Jay, Dipen, Ashish	High Level Design Document v1.0	Akash Dobariya.	10 October, 2013

Table of Contents

1. Introduction	4
1.1 Purpose	4
1.2 Document Overview	4
1.3 Scope	4
2. Design Overview	4
2.1 Approach	4
3. System Components	5
3.1 Database Tables	5
3.2 Description of Modules	8
4. References	9

1. Introduction

1.1 Purpose

The purpose of this document is to provide a brief description of the design for the system of DAIICT's cafeteria.

Its main purpose is to-

- Provide high level design of the system.
- Document to show how the various components would be implemented.
- Provide a definite roadmap for developers to code the software.

1.2 Document Overview

This document contains brief design of the system – brief description of modules and database tables.

1.3 Scope

This document contains the design of the planned implementation of software. Logic design for every module is documented here. Hence the developers can code directly by referring to this document with minimal effort of debugging and testing.

2. Design Overview

2.1 Approach

The project aims to equip the current manual system with following enhanced capabilities which are listed below:

- We plan to make a bulletin board on student portal to display promotional offers and today's special menu.
- User profiles for all registered user - which has there details and they can block their RFID card in case of theft or lost.
- User notification for their placed order via email.

- Archival system is not there in current scenario - The order history should be maintained and billing cycle with admin should also be maintained. In case of any dispute it will provide sound proof.
- RFID integration with user profile so that order transaction will be handled smoothly without cash.
- Direct cash transfer scheme which enable users to transfer their balance to other user or they can receive balance from other users.

Since we have concluded to follow 'Iterative Waterfall Model' as our project model throughout the development of our software.

3. System Components

3.1 Database Tables

Table 1 :Users

Name	Type	Comment	Nullable	Unique
ID	Varchar	None	No	Yes
pass	Varchar	None	No	No
status	Varchar	0-registered, 1-email verification, 2-admin, verification.	No	No
verified_date	Date	Email verified date.	No	No
act_code	Varchar	Md5 unique string.	No	No
Is_disable	Varchar	0-RFID enable, 1-RFID disable.	No	No
Is_deleted	Varchar	0-Active, 1-Deleted.	No	No
role	Varchar	1-admin, 2-cafe owner, 3-cmc, 4-customer.	No	No

Table 2 : User Profile

Name	Type	Comment	Nullable	Unique
cust_id	Varchar	None	No	Yes
fname	Varchar	None	No	No

lname	Varchar	None	No	No
card_no	Varchar	None	No	No
contact_no	Number	None	No	No
email	Varchar	None	No	No
profile_picture	mediumblob	No	No	No

Table 3: Feedback

Name	Type	Comment	Nullable	Unique
f_id	int	None	No	Yes
decr	Varchar	None	No	No
cust_id	Varchar	None	No	No
sub	Varchar	None	No	No

Table 4 : Cafe

Name	Type	Comment	Nullable	Unique
cafe_id	Varchar	None	No	Yes
cafe_name	Varchar	None	No	No
owner_name	Varchar	None	No	No

Table 5 : Café Log

Name	Type	Comment	Nullable	Unique
café_id	Varchar	Foreign key	No	No
balance	Int	None	No	No
date	Datetime	None	No	No

Table 6 : Customer Log

Name	Type	Comment	Nullable	Unique
cust_id	Varchar	Foreign key	No	No
balance	Int	None	No	No

date	Datetime	None	No	No
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Table 7: Admin Log

Name	Type	Comment	Nullable	Unique
Datetime	Datetime	None	No	Yes
Balance	Double	None	No	No

Table 8: Transaction

Name	Type	Comment	Nullable	Unique
t_id	Int	None	No	No
payer_id	Varchar	None	None	No
payee_id	Varchar	None	None	No
amt	Int	None	None	No
type	Varchar	0-purchase, 1-recharge, 2-fund transaction, 3-withdraw, 4-café rollback.	None	No
is_rollbacked	Varchar	Rollback or Not.	None	No
time	Timestamp	None	Currente_Times tamp	No

Table 9: Balance

Name	Type	Comment	Nullable	Unique
user_id	Varchar	None	No	Yes
balance	Int	None	No	No

3.2 Description of Modules

3.2.1 Registration Module: This module restricts the user to register with her/his DA-IICT webmail ID only. If the entered email is non DA-IICT webmail id, the user is given an error instructing to register with webmail-id. The username would be considered as daiict id. Password must contain at least 6 characters. Error is given when entered password has less than 6 characters. RFID id would be associated with user profile.

3.2.2 Student Portal Module: This module will enable all the registered students to view their daily or monthly expenses. It will help them to restrict their expenses. Any kind of promotional offers will also be displayed on student portal like today's special.

3.2.3 User Profile: This module will deliver user profiles feature for all the registered users and will have their basic information. Block their RFID in case of theft or stolen or lost.

3.2.4 Notification System: This will notify the users whenever they make order from any one of the cafe.

3.2.5 Order Module: This module will enable user to place an order. After verifying the final amount user will produce RFID card at the cafe counter. Based on reading RFID card final amount will be deducted from the respective user account.

3.2.6 Recharge Module: This module will enable users to recharge their account with admin. So that they can continue to get benefits of cashless transaction with cafe.

3.2.7 Fund Transfer Module: This module provides an add-on facility to users. It will enable users to transfer this balance to their friend's account or receive balance from their friend's account.

3.2.8 Archival Module: This module will provide admin a more robust archival feature. Admin will be able to search various transactions that were happened with users like cafe owners or students or both.

3.2.9 Menu Module: This module will create menu for various cafes and even it will handle any kind of updates in menu or price revision.

4. References

PuravChitaliya, et. al., Software Requirements Specification v1.0, Team 2, IT632 Software Engineering, Autumn 2013-14, DA-IICT

PuravChitaliya, et. al., Project Plan v2.0, Team 2, IT632 Software Engineering, Autumn 2013-14, DA-IICT