**Database Management IS610**

**Updated Project Proposal**

**Grocery Store E-coupon System**

**Professor: Dr. Lina Zhou**

**Project Scope: Fall Semester, 2012**

**Team Name: JBVB DBA Team**

**Team Member: Jing Bai, Vikas Bansal**

Grocery Store E-coupon System

Project Description:

For any grocery store, paper coupon is a popular and successful marketing tool for two main reasons. One is store can get more customers by giving users the coupon discount and the other one is that coupon system allows store to track customers’ consumption habit and helps store in finding potential market. However, paper coupon system, as a marketing strategy, has some disadvantages. For store, it is a hard job to plan on distribution of coupons, because coupon distribution has to depend on separate distribution channels. Separate distribution channels incur cost of more resource usage and labor work. Customers might find it difficult to locate a piece of paper while planning to shop. In addition to this, lots of paper is wasted in publishing paper coupons. To avoid all these overhead and wastage we introduce an online e-coupon system namely Grocery Store E-Coupon System (GSECS). GSECS will assist store in managing the coupon system in a better way.

Project Goals:

1. Eliminate fraudulent coupon in order to reduce store loss.
2. Provide convenient approach to use coupon.
3. Better management on coupon system.

Critical success factors:

The advantages associated with implementation of GSECS are as follows:

* IT’S ONLINE!! - GSECS will provide a coupon system which is completely online. Customers would not have to take the printed coupon to redeem its value.
* FLEXIBILITY – Customers can download their coupons from store’s website directly into their online accounts. And since it is online, it can be done anytime and from anywhere.
* NO FRAUDULENT COUPONS – Direct transactions of coupons from store’s website to customer’s account will ensure genuine coupon use. Putting download limit per customer would prevent coupon misuse.
* ADDITIONAL BENEFITS –
  + Saves times, saves paper and easy to implement.
  + Friendly interface. User would find it easy to see and use the application.
  + Useful search engine/easy to use.
  + Stable/ reliable database management.
  + Flexibility to access coupon system with any device.

Business Functions

|  |  |  |
| --- | --- | --- |
| USER ACCOUNT MANAGER | COUPON DEPARTMENT | PRODUCT  DEPARTMENT |
| Manage users’ database. Information like e-mail, phone. | Update existing coupon information with latest offers. | Add new or delete product information |
| Edit account profile | Update database with new coupons by doing past use analysis. | Update existing product information. |
| Add new users,  Delete idle accounts. | Put download limit on number of particular coupon types. |  |
| Keep track of number of additions each year. | Classify coupons in product categories. |  |
| Invite new members via e-mail. |  |  |

Preliminary data model:



*How to implement?*

* Create E-R Diagram to design database architecture
* Use MYSQL to implement the database on server
* Create User Interface using PHP
* Create business layer to manage logic
* Create data layer to access database for create, update, delete, read operation

Schedule:

* 9/11-9/27, GSECS EER diagram
* 9/28-10/23, translation GSECS EER diagram into relational tables in 3NF
* 10/24-11/20, implement GSECS of SQL commands
* 11/21-12/3, GSECS report and presentation