Software Specification

Introduction

This document should lay out the specifications of the Coupon inventory system. This will include functional and non-functional requirements and its intended audience.

This project will store many coupons information in a collection and present that information in a sorted list. The information in the list should be easy to read and informative for the user. User can also input a specific coupon information by manually or using data file, and this system provide a search function let user easy to get the message what they want.

Functional Specification

1. Purchase Coupon manually
   a. This feature will allow the user to input a coupon information with each detail.
   b. Importance – high
   c. Implementation – This feature will be a series text input area to input many different feature about a coupon.

2. Import coupon information using data file
   a. Import data file
   b. Importance – high
   c. Implementation – This will be a file select window to import coupon data.

3. Search Coupon information
   a. Search coupon
   b. Importance – high
   c. Implementation – This will be a text input area as well as a button to print out the search result.

4. List all the coupons
   a. List all the coupons information in a table
   b. Importance – high
   c. Implementation – This will be a table to show all the coupon information.

5. Filter in the coupon list
   a. Filter the character in the coupon data table
   b. Importance – middle
   c. Implementation – This will be text input area and a "Filter" button to filter the table result.

6. Implementation List all the coupons
   a. List all the coupons information in a table
   b. Importance – middle
   c. Implementation – This will be an independent class to create coupon list file.

Input Specifications

A Coupon Inventory System will be designed that allows the user to input the following information from any computer with java runtime environment:

- Name of coupon provider (max field: 20 bytes)
- Name of product (max field: 20 characters)
- Price of product(e.g. $10, $20, $50, etc.)
- Discount rate of the coupon (range between 5% to 80%)
- Expiration Period (range between 0 and 365 days)
- Status of a coupon: Unused or Redeemed
- Coupon website

Interface Specifications:

- Choose the function by some buttons
- Have a series input square to type in some information
- Have a table to show all the coupon information
- Can using label button make the data sorted
- Have a filter in the top of the table to restrict result output

Non-Functional Specification

- Easy to use – have instruction and reminder
- Compatibility – This system is write using java, it can on many computers where there are a java runtime environment.
- Reliability – accuracy guaranteed from search function.
- Maintainability – Easily upgradable
- Object-oriented – There are many different part compose this system.
- Portability – This system is small and easily moved

Exception Handling

- Coupon data format invalid
  - ➢ Return an error message and run "System.exit(1)".
- Search not found
  - ➢ Return the count of search.
- Invalid datafile
  - ➢ Return a reminder for import error.
- Invalid data type
  - ➢ Return a message to remind the right data type.