

## MACHINE PROBLEM SPECIFICATIONS (Online Shopping Store)

### **Phase 1: Signing Up and Logging in Phase**

#### *Login*

1. Any UNIX user account used (may it be root or an ordinary user) is allowed to login and sign up for the system. Create your own information bank containing the following:
  - Username (should not be case sensitive)
  - Encrypted password
  - Full name
  - Home address
  - Email address
  - Date when the account was created

The format of the information to be stored is as follows (use colon as a delimiter):

username:uid:encrypted\_password:full\_name:home\_address:email\_address:date\_when\_the\_account\_was\_created

UID should start from 1 and will increment every time a user is added. If a user deactivated his account, the file should be updated, removing the entry for the deactivated account. The removed UID should then be available for a newly added user.

2. Display the application name and the tagline in the login page.
3. From login page, ask user to either login/exit application.

#### *Registration*

1. No user is allowed to register/sign up if the account name used already exists.
2. Ask the user to input the following information:
  - a. Full name (First name, middle name, last name)
  - b. Delivery Address (max 100 characters)
  - c. Email address
  - d. Username
  - e. Password (input should be masked/hidden when entered by user)
  - f. Confirm Password
3. Usernames must conform to the following specifications:
  - a. at least 8 characters in length.
  - b. must begin with an alphabetic character (upper or lowercase)
  - c. must be unique
4. Passwords must conform to the following specifications:
  - a. at least 8 characters in length.
  - b. must contain at least 1 lower case character, 1 upper case character, 1 digit, and 1 punctuation mark
  - c. must not be exactly similar with the username
  - d. must be similar when asked again to confirm password.
5. Make sure that all inputs are present. Do not proceed to the next input if a line is missing.

6. Ask user if he wished to submit/save changes or cancel. If user chooses to cancel, go back to login page.
7. Include in the information bank the exact date when the account was created.

BONUS feature: Send an email to the user after creating the account, indicating that the account was successfully created. Any email format will do. The bonus points are rewarded to the student only if email is sent successfully during the demo/defense.

8. After signing in, direct user to Phase 2.

### **Phase 2: Database File**

1. The DB file should contain the following information:
  - a. Item ID
  - b. Item Short Name
  - c. Quantity
  - d. Price
  - e. Date when Item was created
  - f. Full Description
2. The first DB file should have the following format:  
ItemID:ItemShortName:Quantity:Price:DateCreated

The second DB file should have the following format:  
ItemID:FullDescription

### **Main Menu (for Ordinary User)**

1. The following items should be listed down during the main menu
  - a. Search
  - b. Highlights
  - c. New!
  - d. Cart
  - e. Profile
  - f. About Us
  - g. Customer Care
  - h. Logout
2. Once Logout option is selected, the user is logged out, and the login page is shown again.

### **Search**

1. The user may input a string containing one or more words as search parameter. The searching method should be done first in the primary DB file, and then on the secondary DB file. List down all items found in the DB files containing the short description first before listing all items found containing the full description. Note that no item should be repeated twice in the list.
2. The output of the list should conform with the following format:  
Search #          Short Name      Full Description

(G) Go back to main menu

3. The user may then select an item from the search list using the search number. Once an item is selected, the user is directed to the Cart pane.
4. The user may also input G to go back to main menu.

#### Cart

1. The user may see the list of the items placed in the cart. The following is for the list of these items.  

Item No.	Short Name	Quantity	Individual Price	Total Item Price
(C) Check out				
(G) Go back to Main Menu				
2. At the bottom of the list, the total price for all items should be displayed.
3. User may select an item using the item number, or go back to main menu using the G input.
4. If an item is selected, the following options may be shown.  
(M) Modify Quantity    (R) Remove from cart
5. If the user chooses to check out, the payment pane will be displayed.
6. The payment may be done via credit or debit card. Ask the user for the Card Number, the Expiry Date, and the CCV / CVV. Once all inputs are valid, indicate that payment is successful and go back to main menu.
7. All items from the cart should be removed after the successful payment. If the user just chooses to go back to main menu, the items from the cart should still be retained.
8. The quantity of the products should be updated as well.

#### Bonus Feature: Discount Card

1. The user may use a discount card to be included as a feature in the Cart pane. The administrator should have a preset list of allowable discount item numbers and their corresponding discount percentage (10%, 20%, etc.) to be entered by the user. Once the input is correct, the total price should be deducted with the discount used. (To be able to get the bonus points, the functionality of the discount card should be working perfectly well during the demonstration).

#### Highlights/New!

1. Both options should have the same format of the list  

Item #	Short Name	Description
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2. *New!* displays all new items sorted via the latest addition to the store (this is dependent on the Date when the Item was created). Display all items added just 7 days ago
3. *Highlight* is dependent on the preferred search phrase made by the administrator. A string may be displayed in the Highlight pane describing what is being highlighted for that day/week (e.g., **Summer Heat!** – will display all items used in Summer)
4. The user may then select an item from the list using the item number. Once an item is selected, the user is directed to the Cart pane.
5. The user may also input G to go back to main menu.

#### Profile

1. The user may opt to change any information from his account even the password, except the username.

2. The changes should be reflected immediately after changes have been saved.
3. You may display all information first before the user is asked to choose which detail to change. Do not let him input all information again.

#### About Us

1. This display should describe in detail all about your online store, when it started, how it started, where the idea came from, who are the people to thank for, etc. You may describe good characteristics about your store (e.g., Easy Shopping, COD, Hottest Campaigns, Discounts available, etc.) and describe each characteristic.
2. The description may be in paragraph form or in any other form that is pleasing to be viewed by the customers.

#### Customer Care

1. Include in here FAQs displayed per page. (During the demo, make sure that this list can be displayed in two or more pages)
2. Also, in this page, you may provide the contact information of the store (email and hotline number) for them to contact in case of any queries.
3. Consider the following menu choices.

(1) Proceed to first page      (2) Proceed to second page      (3) Contact Details      (4) Go back

#### **Phase 3: Administrative Control**

##### Main Menu (for Administrator)

1. The following items should be listed down during the main menu:
  - a. Add Item
  - b. View / Edit / Delete Item
  - c. Set Highlights
  - d. Change Password
  - e. BONUS Feature: Discount Card
  - f. Logout
2. Once Logout option is selected, the user is logged out, and the login page is shown again.
3. Note: Once the administrator is logged into the system, the application should fall under maintenance mode. This means that no users should be able to login

##### Add Item

1. If the admin chooses to add an item, he/she should be asked with the following information:
  - a. Short Name
  - b. Full Description
  - c. Quantity
  - d. Retail Price
  - e. Keywords (for Highlights and Discount Card Feature)
2. Note that when the item is added, the DB file should also be updated with the date when it was created.
3. An added item should have a unique item number which will be used later on to search an item.

### View/Edit/Delete Item

1. The Search Window for the user will be the same for the Admin. The only difference is that after the admin selects an item, the item will be displayed with full description, and then the admin chooses which item description will be modified. Note: You may follow the template shown below or use your own technique on how to be able to display the function for View/Edit/Delete.

*e.g. Item Selected: 123*

<b>Item No.</b>	<b>Short Name</b>	<b>Quantity</b>	<b>Retail Price</b>
123	Object 1	5	10.25

**Description:** *This item is used for this particular function.*

*What do you wish to do? (E) Edit (D) Delete (C) Cancel*

*Choice: E*

*Select which description to modify:*

*(S) Short Name*

*(Q) Quantity*

*(R) Retail Price*

*(D) Description*

*(G) Go back to Main Menu*

2. If the admin chooses not to edit, the admin will be directed back to main menu.
3. Note: If an item is deleted, the item no. should now be available and should be the next Item number to be used by the newly added item.

### Set\_Highlights

1. The admin should set current highlights for a month/week by including set of keywords in the list and the title of the highlight to be displayed in the user window.
2. This feature should always be present. The only way that the admin can do is to modify current set of keywords to be featured, but not delete any of the keywords already set.
3. Once set, those items containing the keywords set will be present in the Highlights window.

### Change Password

1. The admin should be able to change his/her password any time he wishes.
2. The admin password is expected to expire every after 30 days . Once the password is expired, the admin is forced to change his/her password at next login.
3. If he was able to change his password at a particular day, then the expiration count will reset back to 30 days.