

Q5 Z-Kart

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### Task : 1 - Customer Initialization

We are going to write a software to perform an online shopping application called **Z-Kart**.

The back bone for every online retail application is its customers. The initial customer details for our system will be given in a file zusers\_db.txt

The file contains multiple lines and every line will be of the form

| <b>UserName/Email</b>                            | <b>EncryptedPwd</b> | <b>Name</b> | <b>Mobile</b> | <b>Credit</b> |
|--------------------------------------------------|---------------------|-------------|---------------|---------------|
| <a href="mailto:abc@zoho.com">abc@zoho.com</a>   | ApipNbjm            | Rahul       | 9922992299    | 20            |
| <a href="mailto:123@zoho.com">123@zoho.com</a>   | Cboljoh             | Anitha      | 8564119904    | 0             |
| <a href="mailto:user@zoho.com">user@zoho.com</a> | kbwb22              | Arpan       | 9872345693    | 60            |

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At first, the Z-Kart application will read the contents of this file and initialize its customer base

### Task : 2 - Inventory Initialization

**Z-Kart** is an online shopping kart focusing on selling electronic gadgets especially laptops, mobiles and tablets.

The inventory of Z-Kart is initialized from the file z-kart\_db.txt which is of below format

| <b>Category</b> | <b>Brand</b> | <b>Model</b> | <b>Price</b> | <b>Stock</b> | <b>Discount(%)</b> |
|-----------------|--------------|--------------|--------------|--------------|--------------------|
| Mobile          | Apple        | 6S           | 60000        | 10           | 0                  |
| Mobile          | Motorola     | G            | 12000        | 5            | 4                  |
| Laptop          | HP           | Elite        | 56000        | 20           | 0                  |
| Tablet          | Google       | ChromeBook   | 8000         | 12           | 2                  |

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Read the file and initialize the Z-Kart inventory database

### Task : 3 - Login

Already signed up customers can login into Z-Kart for shopping. In the login screen, get the username and password. Check whether the username

entered is a valid registered user. If not, prompt the user to sign up instead of sign in!

As the users are not aware of and are abstracted from the encryption applied to passwords, they will input the simple plain password which they provided. Encrypt it and verify with the stored encrypted password for authentication

#### **Task : 4 - Shopping**

The system will guide the user to ease his shopping effort.

The system should list out the items having discounts after the user signed in and provide an option to add an item to the cart if the user wishes to.

Then if the user wishes to continue shopping, he should be presented a list of categories (Mobile / Laptop / Tablet) available. The user will then choose what he looks for. The system will display the models, brands and price based on the user's preference.

The user will choose the brand and model. The system will ask the user to continue shopping where he can add any number of additional products. Once he decides to check out the cart, the system will check the availability of stock for all the items in the cart and present the user with an invoice.

Before generating an invoice, the system should check with the user if he wants to use his credits if available. If wishes to use credits, the system should prompt the user how much credits to use and reduce the value from bill amount.

For every 1000 rupees in the bill amount 20 credits should be added to the user account. The system will then generate a unique invoice number and presents the order details to the user

#### **Task : 5 - Admin mode**

Z-Kart supports a special login for the admin with the username [admin@zoho.com](mailto:admin@zoho.com) and password "xyzzzy"

When the password entered is correct, the user will be taken to the admin section.

Admin should be provided with the below options.

- 1 ) Option to display all items in stock
- 2 ) Option to display a list of items whose stock is less than or equal to a configured threshold (say 10) to help him in placing the re-order.
- 3 ) Option to reorder an item and add to the stock. Get the number of items to be purchased from the user.
- 4 ) Option to update discount value of an item. Discount should be a percentage of the cost.

### **Task : 6 - Persistence of Order History**

The order history will persist for every user. Any user after successful login, is allowed to check his order history. The sample format of history is displayed below

Invoice Number 312684

Date 19-Jul-2016

| <b>Category</b> | <b>Brand</b> | <b>Model</b> | <b>Price</b> |
|-----------------|--------------|--------------|--------------|
| Mobile          | Apple        | 6S           | 60000        |

Credits used - 1000

Total - 59000

Credits added - 1180

Invoice Number 132793

Date 1-Jun-2016

| <b>Category</b> | <b>Brand</b> | <b>Model</b> | <b>Price</b> |
|-----------------|--------------|--------------|--------------|
| Tablet          | Google       | ChromeBook   | 8000         |

Credits used - 0

Total - 8000

Credits added - 160

Ensure that Z-Kart application continues to run until the user asks to quit.