1st Semester 2022-23

CSF 213(OOP) Mini-Project (Home Assignment)

Project Title: Online Supermarket

Max Marks: 30 Dt: 26-Sep-2022

Brief Description of the Application:

Assume that you are required to develop a web-based application for an ***online supermarket***. Customers can register and order items through this application.

Expected Functionality:

A. User Management:

- A user can be - admin, manager or customer (appropriately decide the permissions/responsibilities).
- Admin is the super user with all permissions.
- Users (customer, admin and manager) will have information such as- user name, a user id (unique across the system), phone number, and email id, and address.
- An existing user should log into the system with user id and password.
- New customers are permitted to register.
- Manager/admin can add or delete items, modify details about the items (price/qty/offers etc.)
- A user can withdraw himself from the Application.
- Password change (reset) facility is required.

B. Admin/manager publishing item details:

- Manager or admin users should be allowed to publish the details of the items made available for sale. Details needed are item_name, item_code, price, offer if any, qty available, delivery time etc.
- A manager or admin can delete the published item whenever required.

C. Customer order management:

- A customer should be allowed to view/search the items published/available for sale.
- Select items to the cart.
- Drop items from the cart if required.
- Request for estimation (total cost) for the items selected.
- Confirm order and make payment.
- User should get a confirmation message with expected delivery date.
- User will have a Wallet from where payments will be made, and user can top-up the wallet if necessary. But at the time of registration must start with minimum of 1000/-.

D. Other functionality:

- Admin user should be able to generate reports like – items sold on a date, customer order details(summary) for a month, item stock status etc.
- Any user can generate his order history (summary) for a given month.

Note: Any missing specifications can be assumed.

Implementation Guidelines:

A. The project has to be developed as a Web Application. Front end technologies can be - HTML, CSS, and JavaScrip etc (it can be anything of your choice). But, the backend coding must be in Java only. The students are free to use any existing Java backend framework like- Spring, struts, Hibernate, Final Thought etc.

B. You may use any IDEs/tools to develop the application. But you must be in a position to explain details if asked during the project evaluation.

C. It is to be noted that the graphical user interface should be made user-friendly and a user

should be able to navigate across all the web pages from one page to another in an efficient manner.

D.For storing the data, you can use any type of database (MySQL, Oracle, etc.,). For example, JDBC API can be used to implement database connectivity to the application. Or can use file systems as well.

E.You may use Apache Tomcat Server, Microsoft Internet Information Server any other Web server of your choice for hosting the web application locally or even it can be hosted online using any free Web Host Server if available.

Other Guidelines:

1. This is **a group** activity. Each group will have up to, not more than 6 students.
2. Groups to be formed by 5-00 pm on 01-Oct-2022.
3. Enter Group members' details into the Excel sheet shared at:

   https://docs.google.com/spreadsheets/d/147wbnupOrMY3hmN-dCFUma-luGqyXirq/edit?usp=sharing&ouid=104095720426649430213&rtpof=true&sd=true

4. Apply OO concepts to specify classes, roles, functionality etc.
5. Maintain a separate hard copy (one or two A4 sheets) for the design details of the system, which can be shown during the first phase of evaluation (midsem)
6. Mid-semester evaluation consists of reviewing the design, functionality proposed and viva (Max marks:10)
7. Final evaluation consists of reviewing the final design, implementation, demo and viva.

8. Evaluation dates will be announced 7-10 days ahead through CMS notice.
9. All team members must be present, and we will ask each one of the team to present a portion of the work as per our wish. So, all must be prepared.

10. Evaluation scheme: Mid-semester evaluation(17th-20th Oct): Design and functionality proposed-6 marks and Viva -4 marks.

    Final evaluation (5th to 10th Dec): Overall Design-4 Marks; Implementation and Demo-8 Marks; Viva-6 Marks; and 2marks for additional features/functionality and elegance. Note that only a few teams will get this bonus two marks, not all.
11. Special Note: Plagiarism check will be done. Hence please make sure that your work is original.

Prof R Gururaj, IC