

OOP – Programming/Design

Assignment: Individual Programming assignment

Due Date:	13th December 2021 1PM
Module Lecturers:	Nishanthan Baskaran/ Minoli de Silva

Background Information

This assignment tests your understanding of and ability to apply the programming and design concepts you have learned in the course so far including the usage of variables, selections, iterations, data structures, UI design, file handling and database operations.

Assignment Specification

Due to the prevalence of the Covid-19 virus and the enforced curfew in the country, most shops have converted their businesses to Home Delivery Services. Mr. and Mrs. Priyalal also decided to create their own delivery service for essential items for homes.

But with the growing demand they found it difficult to keep record of their stock manually. Mrs. Priyalal decided to obtain *your* technical help for the convenience of their business.

You are required to develop an Inventory Control system for Priyalal stores using Java Programming Language and JavaFX for UI design.

Given below is the specification given to you by Mr. and Mrs. Priyalal.

1. When the application starts, a login screen should be displayed where the user can enter their username and password to log in.
2. If a user enters an incorrect username password combination, a message should be displayed saying “Invalid username or password”.
3. If a user enters a correct username password combination, they should be redirected to an interface with a menu bar.
4. Menu items and sub menu items with their functionality should be as follows.
 - a. Home: A creative home screen for the software (you are free to decide the contents)
 - b. Categories: Products are divided into categories. Each product must have a category. The following functions are expected for the categories.
 - i. Add Category
 - ii. View Categories in a table
 - iii. Edit Category
 - iv. Delete Category
 - c. Product Management. The following functions are expected for the products.
 - i. Add Product (Must be added to Category. Existing Categories should be displayed in a drop down to be selected)

- ii. Search for Product by Id/Name
 - iii. View Products in table
 - iv. Edit Product
 - v. Delete Product
- d. Stock. The following functions are expected for the stocks.
- i. Add to Stock (Add Product Quantity for Product)
 - ii. Remove from Stock
 - iii. View stock details of all Products
 - iv. View Stock details of a single product (By Id/Name)
5. Logout : Logout from application

Applications Data can be stored in Text Files as appropriate using File Handling methods. (Hint: You are allowed to use multiple files)

Bonus marks will be given for using Database based data storage. 5 marks for MySQL and 10 marks for NoSQL such that the maximum marks will not exceed 100.

Assignment Deliverables

1. PDF file containing code snippets
2. Zipped Project with relevant file(s)/ database dump

Please do not include auto-generated code in the PDF. Only and all the code written by you needs to be included in the PDF. Zip file must contain all code and relevant files required to run the project in any given computer during the viva.

Referencing, Plagiarism and Collusion

The entirety of your assignment **must be your own work** (unless otherwise referenced) and produced for the current instance of the unit. Any use of unreferenced content you did not create constitutes plagiarism and is deemed an act of academic misconduct. All assignments will be submitted to plagiarism checking software which includes previous copies of the assignment. Remember that this is an **individual** assignment. Never give anyone any part of your assignment – even after the due date or after results have been released. Do not work together with other students on individual assignments – helping someone by explaining errors in their code/logic or directing them to the relevant resources is appropriate but doing it for them or showing them how you did it is not. An unacceptable level of cooperation between students on an assignment is collusion and is deemed an act of academic misconduct. If you are uncertain about plagiarism, collusion or referencing, simply email your tutor, lecturer or unit coordinator and ask.

