**ONLINE SHOPPING MANAGEMENT SYSTEM**

BY

LOK WERN KAI

A RIGOROUS ASSESSMENT

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**SOLUTION DESIGN**

Diagram

Description automatically generated

Figure System Architecture Flow

The objective of this project is to develop an Online Shopping Management System for both business and customer user using C++ Object-Oriented Programming (OOP) concepts. The system should allow business user to manage user, inventory and order. On the other side, customer user should be able to browse product, place order and check bill via the system.

Since the main objective is to focus on application layer with OOP concepts, a simple console application with text file serve as data storage can meet the requirement and ease the development process. Console application can reduce the time on User Interface (UI) design and text file as data storage can avoid the time on setting up a Relational Database Management System (RDBMS). Hence, developer will have more time focus on application layer.

The console application will retrieve instruction from the user then save the input into the relative text file as data storage for future purpose. The user will be able to view the data stored in the text file via the application as well.

**ACTIVITY DIAGRAM**

Admin

1. Create User
2. Delete User
3. View User
4. Edit User
5. Search User

Manager

1. Create Product
2. Delete Product
3. View Product
4. Edit Product
5. Search Product
6. Create Order
7. Delete Order
8. View Order
9. Search Order
10. Create Order Item
11. Delete Order Item
12. View Order Item
13. Edit Order Item
14. Search Order Item

Customer

1. Search Product
2. Add Product to Cart
3. View Bill

**CLASS DIAGRAM**

1. Menu
2. Sub Menu
3. User
4. Component

**C++ PROGRAMMING CONCEPT**

1. Variable

Text

Description automatically generated

1. Function

Text

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1. Control Statement
   1. Conditional Statement
      1. If … else / else if … Statement

Text

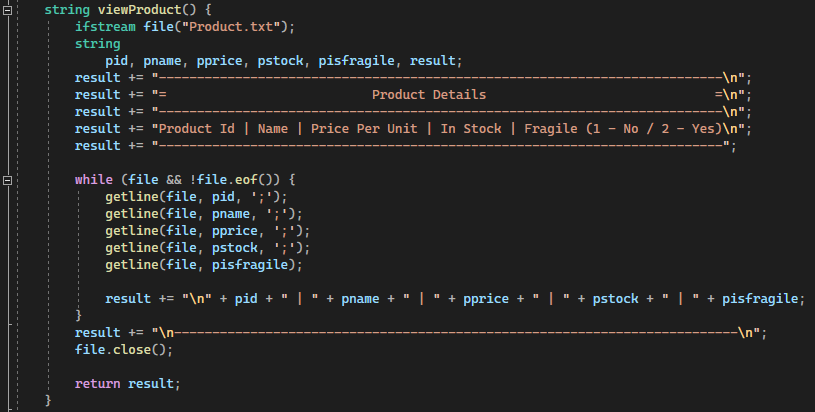
Description automatically generated

* + 1. Switch Statement

Text

Description automatically generated

* 1. Loops
     1. While Loop



* + 1. For Loop

Text

Description automatically generated

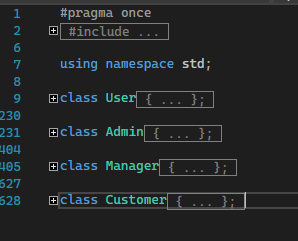
* + 1. Do…While Loop

Text

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**OBJECT ORIENTED CONCEPT**

1. Class



1. Constructor

Text

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1. Encapsulation

Text

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1. Inheritance

Text

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1. Polymorphism

Text

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1. Abstraction

Text

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**PROGRAMME SCREENSHOT**

Admin

1. Create User
2. Delete User
3. View User
4. Edit User
5. Search User

Manager

1. Create Product
2. Delete Product
3. View Product
4. Edit Product
5. Search Product
6. Create Order
7. Delete Order
8. View Order
9. Search Order
10. Create Order Item
11. Delete Order Item
12. View Order Item
13. Edit Order Item
14. Search Order Item

Customer

1. Search Product
2. Add Product to Cart
3. View Bill

**TEST CASE**

**LIMITATION**

Beside of the functionality of the system, system limitation comes together.

* Data Verification, address checking, phone number checking
* Apply role for better user management
* Manager add order won’t generate bill

**CONCLUSION**