Ahsanullah University of Science and Technology

Department of Electrical and Electronic Engineering

<u>Assignment</u>

Course No   : EEE 2110.

Course Title   : Programming Language Lab.

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Report for Cloth-Me Online Shopping System

1. Code Breakdown

Class Definitions

i. Cloth Class:

The Cloth class models individual pieces of cloth with attributes like name, size, and price. This is the basic unit representing a product in the shopping system.

ii. Category Class:

The Category class is responsible for grouping clothes into categories like "Men" and "Women." It manages a collection of Cloth objects, allowing the user to browse and select clothes. The class provides methods for adding and displaying clothes and retrieving a specific item by index.

iii. Cart Class:

The Cart class manages the user's shopping cart. It stores selected clothes along with their quantities. It also holds customer details like name, phone, and address, and handles order total calculation. The class generates a bill for the customer and saves it to a file.

Main Function

The main function begins by welcoming the user and initializing two categories: "Men" and "Women." It then prompts the user to select a category, view available clothes, choose items, and specify quantities. After shopping, the customer is asked for their payment method and personal details, and finally, a bill is generated and saved.

File Input

The system does not rely on file input for loading the clothes, categories, or orders. All the data is defined within the program.

User Interaction

User interaction takes place via the command-line interface, where the user selects a category, picks clothes, and specifies quantities. After choosing the items, the user provides their payment method and personal information (name, phone, address). Finally, the system generates a detailed bill and displays it.

File Output

After generating the bill, the system saves it to a file named CustomerBill.txt. This file includes customer details, the list of purchased clothes, total amount, and payment method.

2. Error Handling

The program includes simple error-handling mechanisms such as input validation for the category selection and clothing selection. If invalid inputs are provided, the system loops until valid input is received. Additionally, the file output process includes a check to ensure the file opens correctly.

3. Conclusion

This system effectively models an online clothing store's basic functionality. It leverages object-oriented programming concepts like classes and structures to organize products, manage customer orders, and generate bills. The code is simple and modular, making it easily extendable for future features such as more categories, additional clothing items, or improved user interactions.

This report provides a high-level explanation of the code structure, design decisions, and overall system functionality. By adhering to OOP principles, the system remains flexible and adaptable for future developments.