

C# Programming Assignment (Friday: 2024/07/05)

Two people per group

Objective:

Write a C# program that manages user authentication and allows coffee ordering with a summary of orders and costs. The program should handle user input, display appropriate messages, and perform calculations based on user choices.

Requirements:

1. User Authentication:

- The program should prompt the user to enter a username and password.
- The user has three attempts to enter the correct credentials.
- If the user enters the wrong username or password, display a message: "Credentials are not correct."
- After three failed attempts, the program should display a message: "You have been logged out" and terminate.

2. Operations After Successful Login:

- Upon successful login, the user should be presented with a menu to perform the following operations:
 1. Order Coffee
 2. View Previous Orders
 3. Logout

3. Ordering Coffee:

- When choosing to order coffee, the user should be able to select from three types of coffee:
 1. Espresso - R25.00
 2. Latte - R35.00
 3. Cappuccino - R40.00

- Each coffee type should have three size options with corresponding prices:
 - Small (no additional cost)
 - Medium (+R5.00)
 - Large (+R10.00)
- After selecting the coffee type and size, the program should ask the user if they want to order another coffee.
- If the user wants to order another coffee, the process repeats.
- If the user does not want to order another coffee, the total cost of all orders should be calculated and displayed in ZAR.

4. Viewing Previous Orders:

- The program should keep track of all coffee orders made by the user during the session.
- When the user chooses to view previous orders, the program should display a list of all ordered coffees and their respective costs.

5. Logout:

- The user should have the option to logout, which will terminate the program.

Example Scenario:

1. User Authentication:

- The program starts and prompts the user to enter a username and password.
- The user enters the credentials. If incorrect, the program informs the user and allows up to two more attempts.
- If the user fails all three attempts, the program displays a logout message and terminates.
- If the user successfully logs in, they are presented with the operations menu.

2. Operations:

- **Order Coffee:**
 - User selects "Order Coffee."
 - The user is prompted to select a coffee type (Espresso, Latte, Cappuccino) and size (Small, Medium, Large).

- After making a selection, the user is asked if they want to order another coffee.
- The user can repeat the process or finish ordering.
- Once finished, the total cost of the orders is displayed in South African Rands (ZAR).
- **View Previous Orders:**
 - User selects "View Previous Orders."
 - The program displays a list of all ordered coffees and their costs.
- **Logout:**
 - User selects "Logout."
 - The program terminates.

Submission:

Submit the complete C# program code that meets the above requirements. Ensure the code is well-commented and follows best practices for readability and maintainability.