Codethon (Application)

Create a simple banking system that allows customers to perform various banking operations such as creating new accounts, depositing cash, withdrawing cash, displaying account information, and logging out.

Features:

Creating New Account

- Users can create a new bank account by providing their personal information, including name, address, contact details, and an initial deposit.
- Each account should have a unique account number assigned.

Cash Deposit

- Account holders can deposit a specified amount of cash into their accounts.
- The system should validate the account number and update the account balance accordingly.

Cash Withdrawal

- Account holders can withdraw a specified amount of cash from their accounts, ensuring they have sufficient funds.
- The system should validate the account number, available balance, and process the withdrawal if conditions are met.

Display Account Information

- Users can request to display detailed information about an account.
- The system should provide information such as account number, account holder's name, current balance, and transaction history.

Log Out

- Users can choose to log out from their banking session.
- After logging out, the system should return to the main menu.

Clearing the Output Screen and Displaying Available Options

- After each operation, the system should clear the screen and display the available menu options for the user to choose from.

Constraints:

- Account balances can't be negative.
- Minimum initial deposit required to open an account.
- The system should handle multiple accounts with unique account numbers.
- Ensure data validation and error handling for each operation (e.g., invalid account numbers, insufficient funds).
- Provide a secure way to store account information (e.g., consider using data structures or files).

Example Flow:

- User chooses to create a new account.
- User provides personal information and an initial deposit.
- System generates a unique account number and creates the account.
- User chooses to deposit or withdraw cash.
- System validates the account and processes the transaction.
- User requests to display account information.
- System displays detailed account information.
- User logs out, and the main menu is displayed again.