**ATM Machine**

**Objective:**

To design and develop a simulation of an ATM machine that allows users to deposit and withdraw cash, transfer funds between accounts, and perform account management operations. The simulation will continuously run until explicitly stopped and manage account details via lists.

**Features**

**1. Cash Management:**

- Initial cash input by the bank into the ATM.

- Automatic updating of cash reserves upon deposits and withdrawals.

**2. User Operations:**

- Cash deposit and withdrawal.

- Fund transfer between accounts.

- Account creation and deletion.

- Balance inquiry.

**3. Account Management:**

- Each account will have an account number, PIN, and balance.

- Account details will be stored and managed using Python lists.

**4. Simulation Control:**

- The simulation will run in a loop (while True) until explicitly stopped.

**Components and Implementation**

**1. Initial Setup:**

- Input for initial cash amount to be stored in the ATM.

- Input for initial account details (account number, PIN, initial balance).

**2. Main Menu:**

- Deposit Cash

- Withdraw Cash

- Transfer Funds

- Create New Account

- Remove Account

- Balance Inquiry

- Exit

**3. Operations:**

**- Deposit Cash:**

- Prompt for account number and PIN.

- Verify account and PIN.

- Prompt for deposit amount.

- Update account balance and ATM cash reserve.

**- Withdraw Cash:**

- Prompt for account number and PIN.

- Verify account and PIN.

- Prompt for withdrawal amount.

- Check for sufficient balance and ATM cash reserve.

- Update account balance and ATM cash reserve.

**- Transfer Funds:**

- Prompt for source and destination account numbers and PIN for the source account.

- Verify accounts and PIN.

- Prompt for transfer amount.

- Update balances of both accounts.

**- Create New Account:**

- Prompt for new account number, PIN, and initial deposit.

- Add new account to the list.

**- Remove Account:**

- Prompt for account number and PIN.

- Verify account and PIN.

- Remove account from the list.

**- Balance Inquiry:**

- Prompt for account number and PIN.

- Verify account and PIN.

- Display balance.

**4. Error Handling:**

- Handle invalid account numbers, incorrect PINs, and insufficient funds gracefully with appropriate messages.

**5. Security:**

- Ensure PINs are handled securely and not displayed in plaintext.