Atm Machine Project

1. Quick Summary

The purpose of this project is to try and simulate the workings of an ATM machine.
For this to be possible, users and accounts have to be created, insertion and withdrawal of a “card” has to be simulated and information has to be stored.

2. Functionality

- Creation and removal of users
- Modification of user information
- Creation of accounts
- Modification of account information
- Identification
- Checking balance
- Withdrawing
- Depositing
- Paying

3. How it works

First and foremost, like a real ATM machine, most interactions that happens on an account such as withdrawing, depositing, checking balance and payments require correct identification in the form of a 4 digit PIN number.

1. Create a new user by filling in the required information and choosing an account type for this user.
2. Upon creation of the user, an account of the chosen type is created with the supplied PIN number and the user is added to a user list.
3. The account that is created gets a randomly generated account number that consists of a string of 12 characters (Example: “AG12 3456 7890”). And a generated account ID that consists of the first letter of the first name, first letter of the last name and last 4 digits of the account number.
4. To simulate users interacting with the machine, a user from the list can be selected.

5. A button for inserting a card simulates this action and prompts a screen to select an account. This is in case a user has multiple accounts, which means multiple cards, they can pick the one they want to use.
6. Accounts are characterized by their account ID.
7. After selecting an account the user is required to enter the correct PIN number for the chosen account.
8. When the correct PIN number is entered, the card is inserted and interactions with the machine can be made for this specific account. Also the button that simulates the action of inserting a card reflects that the inserted card can be withdrawn.

4. EER Diagram