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Module 6 Assignment Interpreting UML Diagrams

The UML activity and sequence diagrams show the use case process for withdrawing money from an ATM. The activity diagram starts with verifying the user’s PIN and moves on with the withdrawal process of asking the user the amount and then the ATM’s physical actions of dispensing the cash, printing a receipt, and ending the transaction. The sequence diagram breaks the activity diagram down further into the exact steps that need to be taken for the activity diagram to work properly. First the user inserts their card, enters their PIN, the system verifies their account with the bank, and then it can fulfil the activity diagram’s steps. The main information that is passed back and forth is the PIN. The system asks for it, the user enters it, the ATM sends that PIN to the bank for verification, the bank then sends back a valid or invalid response, and then the withdrawal process proceeds to function. Then the amount information is passed back and forth. The ATM requests the amount, the user enters the amount, and then the ATM can dispense it. One deficiency that I saw was that in the sequence diagram, there is not a function that allows the ATM to verify that sufficient funds are in the users’ accounts before dispensing the cash. The diagram shows how the system would verify the users’ accounts at log in but does not mention how fund verification. Another deficiency I saw was that although the diagrams mainly focus on the withdrawal process, they could add the depositing process to. Adding the depositing process would greatly increase the overall functionality of the ATM system and provide more functions for the user.

A diagram of a bank card

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