**Brandon Hobbs**

**CS-255**

**June 5, 2022**

**Module 6: UML Diagrams**

The UML Activity and Sequence Diagrams both show similar actives but with slightly different actions/activities. Both are attempting to describe the use of an ATM by a customer.

The Activity Diagram shows: verifying the pin with a correct/incorrect decision branch; request for amount; a branch for the amount being available/unavailable; dispensing the cash; generating the receipt; printing the receipt.

The Sequence Diagram has three actors: USER, ATM, and BANK. The USER enters their card and the ATM responds asking for pin. The USER enters their PIN and the ATM sends a message to the BANK asking to validate. The BANK responds with the validity status. The ATM subsequently asks the USER for the amount. The final activity shown is the USER entering the amount to which the ATM dispensing that amount of cash. Strangely no action of an incorrect PIN is shown but was in the Activity Diagram – it may be an oversight.

Looking at the diagrams a few deficiencies become apparent. One, a user might request more money to be dispensed than is available within the ATM or their account. There should be a logic gate for this action. Two, the USER should be able to retry their PIN if they enter it incorrectly. A third might be the option to deposit money at the ATM.

