

## CS421: Swimlane/Activity Diagram Homework

**Question 1:** Use any UML tool and draw a swimlane diagram for the following scenario to withdraw money from an ATM. Use only this description (do not make up your own information!).

The customer inserts the ATM card and then enters their pin number.

The Bank system then validates the pin. If the pin is invalid, the ATM machine ejects the card, the customer takes the card, and the scenario ends.

Assuming the card pin was valid, the customer enters an amount to withdraw. The bank checks the account balance. If the balance is less than the amount to withdraw, the ATM shows the balance, and then ejects the card. Once ejected the customer then takes the card and the scenario ends.

Assuming the amount is available, the customer takes money from the slot and AT THE SAME TIME the bank debits the account. Once the customer has taken money and the account debit is complete the ATM machine shows the balance. The ATM machine then ejects the card, the customer takes the card and the scenario ends.

**Question 2:** Frequently when designing software you create swimlane diagrams and class diagrams. Explain why you think they can be used and what information is contained in each (answering this question by explaining an example scenario is usually easier).