Monash University
School of Information Systems and Management
IMS5024
Tutorial 6 – Object oriented modelling

Tutorial Objectives:
- to draw sequence diagrams
- to draw state transition diagrams

Tutorial Task:
1. Write a simple scenario to describe what happens when someone phones a restaurant to order a large Napolitana pizza to be delivered
2. Amend the scenario you wrote in (1) to show what happens when a requested pizza topping is not available
3. Read through the scenario below, describing what happens when someone gets the balance of his or her bank account from an ATM. Draw a sequence diagram to illustrate this information.
   - ATM displays Welcome screen with request to insert card
   - User insert card
   - ATM read card number and requests PIN number
   - User enters PIN number
   - ATM checks card and PIN numbers with bank
   - Bank verifies card and PIN number
   - ATM displays services available
   - User selects ‘Balance of account’
   - ATM gets balance of user’s account from bank
   - ATM displays balance to user
   - ATM asks if user requires any further service
   - User does not want any other service
   - ATM displays request to user to take the card
   - User takes the card
   - ATM displays Welcome screen
4. Draw a state diagram to illustrate a machine for selling crisps, as described in the following paragraph. You do not have to include a stop state on the diagram

To begin with, the machine is idle. When the user selects the type of crisps he or she wants, the machine requests payment. The user inserts coins until the correct amount, or more, has been entered (the machine does not give change). The packet of crisps is then dispensed. The transaction is now complete and the machine returns to the idle state.

(Adapted from Britton, Doake, 2000. Object-Oriented Systems development)