

**National University of Singapore
School of Computing**

**IT5004 Enterprise Systems Architecture Fundamentals
Tutorial 1**

Discussion Questions

1. Develop an **activity diagram** based on the following narrative. Note any ambiguities or questions that you have as you develop the model. If you need to make assumptions, also note them.

The purchasing department handles purchase requests from other departments in the company. People in the company who initiate the original purchase request are the "customers" of the purchasing department. A case worker within the purchasing department receives that request and monitors it until it is ordered and received.

Case workers process requests for the purchase of products under \$1,500, write a purchase order, and then send it to the approved vendor. Purchase requests over \$1,500 must first be sent out for bid from the vendor that supplies the product. When the bids return, the case worker selects one bid. Then, he or she writes a purchase order and sends it to the vendor.

2. Develop an **activity diagram** based on the following narrative. Note any ambiguities or questions that you have as you develop the model. If you need to make assumptions, also note them.

The shipping department receives all shipments on outstanding purchase orders. When the clerk in the shipping department receives a shipment, he or she finds the outstanding purchase order for those items. The clerk then sends multiple copies of the shipment packing slip. One copy goes to purchasing, and the department updates its records to indicate that the purchase order has been fulfilled. Another copy goes to accounting so that a payment can be made. A third copy goes to the requesting in-house customer so that he or she can receive the shipment.

Once payment is made, the accounting department sends a notification to purchasing. Once the customer receives and accepts the goods, he or she sends notification to purchasing. When purchasing receives these other verifications, it closes the purchase order as fulfilled and paid.