

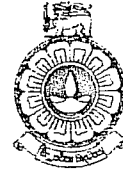
The Open University of Sri Lanka

B.Sc. Degree Program – Level 05

CSU3277: Software Engineering

Open Book Test: 2007

Duration: 1½ Hours



Date: 18-09-2007

Time: 4.00pm – 5.30pm

(01)

Develop a context diagram and a Level-0 diagram for the contracting system described in the following narrative. If you discover that the narrative is incomplete, make up reasonable explanations to complete the story. Supply these extra explanations along with the diagrams.

General Sales Company (GSC) sells computer equipment to government organizations. Whenever an organization needs to purchase equipment from GSC, it issues a purchase order against a standing contract previously negotiated with the GSC. GSC holds several standing contracts with various government organizations. When a purchase order is received by GSC's contracting officer, the contract number referenced on the purchase order is entered into the contract database. Using information from the database, the contracting officer reviews the terms and conditions of the contract and determines whether the purchase order is valid. The purchase order is valid if the contract has not expired, the type of equipment ordered is listed in the original contract and the total cost of the equipment does not exceed a predetermined limit.

If the purchase order is not valid, the contracting officer sends the purchase order back to the requesting organization with a letter stating why the purchase order cannot be filled and a copy of the letter is filed. If the purchase order is valid, the contracting officer enters the purchase order number into the contract database and flags the order as "outstanding".

The purchase order is then sent to the order fulfillment department. Here, the inventory is checked for each item ordered. If any items are not in stock, the order fulfillment department creates a report listing the items not in stock and attaches it to the purchase order. All purchase orders are forwarded to the warehouse, where the items in stock are taken from the shelves and shipped to the customer. A copy of the shipping bill, which lists items shipped, is then attached to the purchase order by the warehouse and is sent to the contracting officer.

If all items were shipped, the contracting officer closes the outstanding purchase order record in the database. The purchase order, shipping bill and item not available report (if attached) are then filed in the contract office.

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