CA2.1 - Use case modelling Lab Report 1

(Refer to Lab Report Instructions document on BB)

Exercise

Document a lab report that fulfils the requirements in the lab report instructions document that details the Aims/Objectives, Method, Result and Conclusion for completing a Use case diagram and flow of events (for the Generate/Place Order use case only) for the Web Purchasing Application requirements as documented below.

Web Purchasing Application Requirements

You are involved in the development of an Online web purchasing application for the XYZ company that wishes to sell its products online. The company initially started selling books however wish to expand their range to include recording products and software in addition to books. Consider the requirements below:

To use the system the customer must log in providing their user id and password. If a customer hasn't registered with the company then the system registers the customer and records details on their name, address, telephone number and email address. Customers are corporate customers and individual customers. Corporate customers are billed monthly (rather than be charged by credit card). The credit card number of individual customers is recorded.

Customers manage their shopping basket by adding items and removing items. Each customer has exactly one shopping basket. The shopping basket consists of no items or many items that the customer may wish to purchase. Detailed held on the items are the quantity ordered and the line price. Each item refers to one product.

An administrator records the number of products available, title, copyright and unit price. For books the author is recorded, for recording products the artist and running time and for software the product version is recorded.

When a customer completes their shopping basket and is ready to purchase they proceed to checkout and an order is generated. Customers can place many orders, however an order is associated with just one customer. Details held on an order are the order number, order date, date shipped, the order status and total price. Orders can contain many items and a customer can add items, remove items from the order, print order details if they choose to do so and charge their credit cards or account depending on what type of customer they are. Authorisation is required by the credit card authority to make a payment if they are individual customers as opposed to corporate customers where they are billed monthly.

The administrator produces sales reports for management meetings that reports on products that are selling well. Some products may be discontinued if not producing appropriate sales levels.

1. Draw a use case diagram for the above requirements.
2. Write a use case description for the Generate Order use case. Additional detail is provided below:

Generate/Place Order use case description

The Use Case starts when the customer selects Place Order and the system displays the Place Order Screen. If the customer is not logged in, they are asked for their login details and their details are retrieved, for new customers their details will be recorded at this point. The cost of the order is calculated based on the items, quantity and shipping details. Payment is processed based on the type of customer checkout and if successful the order is created, details are displayed and the customer is asked to confirm the order. Once confirmed a summary of delivery and billing is produced. If payment is unsuccessful an error message is displayed. At any time before selecting confirm, the customer can select cancel. The order is not generated and the use case ends.

Submission

You must submit the following to Blackboard on or before the Friday of week 4:

1. The Lab Report document in .pdf format called yourname_studentNo_CA2.1.pdf
2. A CA cover Sheet