

CS 3009: Software Engineering (A)

Quiz 4

Time: 15 minutes

Max Marks: 20

Roll No. Solution

Q1.

20 Marks

Zaman Books (ZB) is a book store that rents books, novels, digests, magazines, series etc. The store lends books to customers for a fee. They have digitalized their stock and can now offer e-versions of the books too. They need a computerized system that helps them run their daily business as well as automate the renting of e-versions of the books. Description of their business is as follows:

Only a registered customer can borrow books from the store. The ZB store records, in a customers register, the personal details of a customer who intends to borrow a book. The store also records the payment mode the customer shall use for payments (i.e. cash, credit card, or both). If a customer is a walk-in customer, the store keeper records all the aforementioned information, otherwise the customer can record all this on its own through the developed system. After this recording process ZB charges subscription fees from the credit card customers who provide the cc details to the process and records the payment afterwards in the payment register. If the customer is a cash customer, the ZB only records the payment after the customer recording process. On successful payment of subscription fee, the customer recording process presents a unique membership id to the users. The walk-in customer is issued a membership card by the store keeper. The membership card has a unique membership id which is later used when borrowing books. A customer can request an e-book by providing book title, his/her membership id, and payment – payment in this case is always through the credit card used to open the customer account. On the successful payment the customer is given access of the e-book by the ZB and the record is saved in the loans register.

To do: Develop a level 1 DFD for the ZB system mentioned above. Use the notation discussed in class. Mark each process as primitive or non-primitive.

