INF2011S- Theory Workshop 2

Due Date: 19 August 2021, 23:55PM

Objective: Revision on Theory Lesson 4.1 & 4.2 (Design Sequence Diagrams)

Use the revision notes from Theory Lessons on Vula to prepare for this tutorial. This will be a team exercise so you only need to submit one solution. You are welcome to work synchronously (via WhatsApp/MS Teams) or asynchronously via email. Please do not copy or share your answer with other teams. Zero will be awarded if work is deemed as plagiarised. You are welcome to use any modelling tool of your choice. For online tool, we recommend Lucidchart (https://www.lucidchart.com/pages/). If you wish to install software on your own or Lab PC, check what is available on the ICTS website.

For this exercise, use a tool to generate your diagram (no more hand-drawings). Save your solution file as "Workshop_2_GroupNo.**pdf**". Submit your workshop solution via Vula assignments as a pdf document under the Theory Workshop 2 by 19 August at 23H55PM. Please complete the following mark rubric at the top of your document:
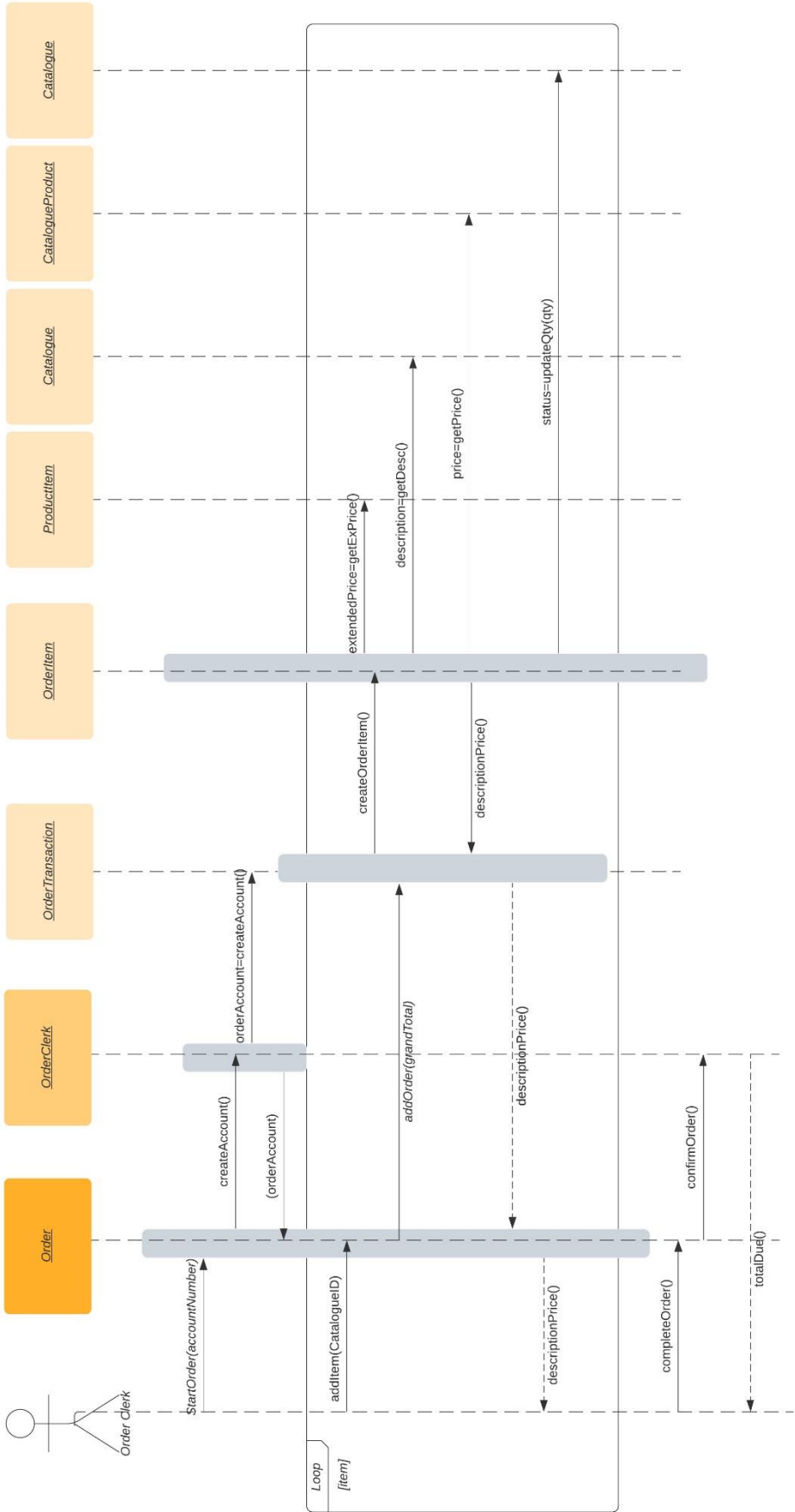
INF2011S Theory Workshop 2	
Due Date: 19 August 2021, **23:55PM**	
Group Number	22
Student 1 (Name, Student Number)	Savanna Alexander, ALXSAV001
Student 2 (Name, Student Number)	Takura Nyamupachitu, NYMTAK006
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Student 4 (Name, Student Number)	Jabulani Mavodze, MVDJAB001
Tutor	Rifqah Francis
Mark	/30

Given the Systems Sequence diagram for the *Place a Telephonic Order use case (Figure 1)* and the *class diagram for the Order Management System (Figure 2)*, **draw a Design Sequence Diagram for the Place a Telephonic Order use case.**

Please include, presentation layer classes, the controller classes and the domain classes. For simplicity sake, do not include the Data Access Layer classes at this stage [if your group feels adventurous, go ahead and add the data layer 😊].

Team 22, Detailed Sequence diagram

Takura Nyamupachitu | August 19, 2021

Actors and objects: Order Clerk, *Order*, *OrderClerk*, *OrderTransaction*, *OrderItem*, *ProductItem*, *Catalogue*, *CatalogueProduct*, *Catalogue*

Messages:
- *StartOrder(accountNumber)*
- createAccount()
- orderAccount=createAccount()
- (orderAccount)
- addItem(CatalogueID)
- createOrderItem()
- *addOrder(grandTotal)*
- extendedPrice=getExPrice()
- description=getDesc()
- price=getPrice()
- status=updateQty(qty)
- descriptionPrice()
- descriptionPrice()
- descriptionPrice()
- completeOrder()
- confirmOrder()
- totalDue()

Loop [item]

Assumptions

Perfect technology assumption

- No technical issues when making the order
- No logon issues

Perfect solution assumption

- No errors will occur
- No order will be unavailable for the order clerk
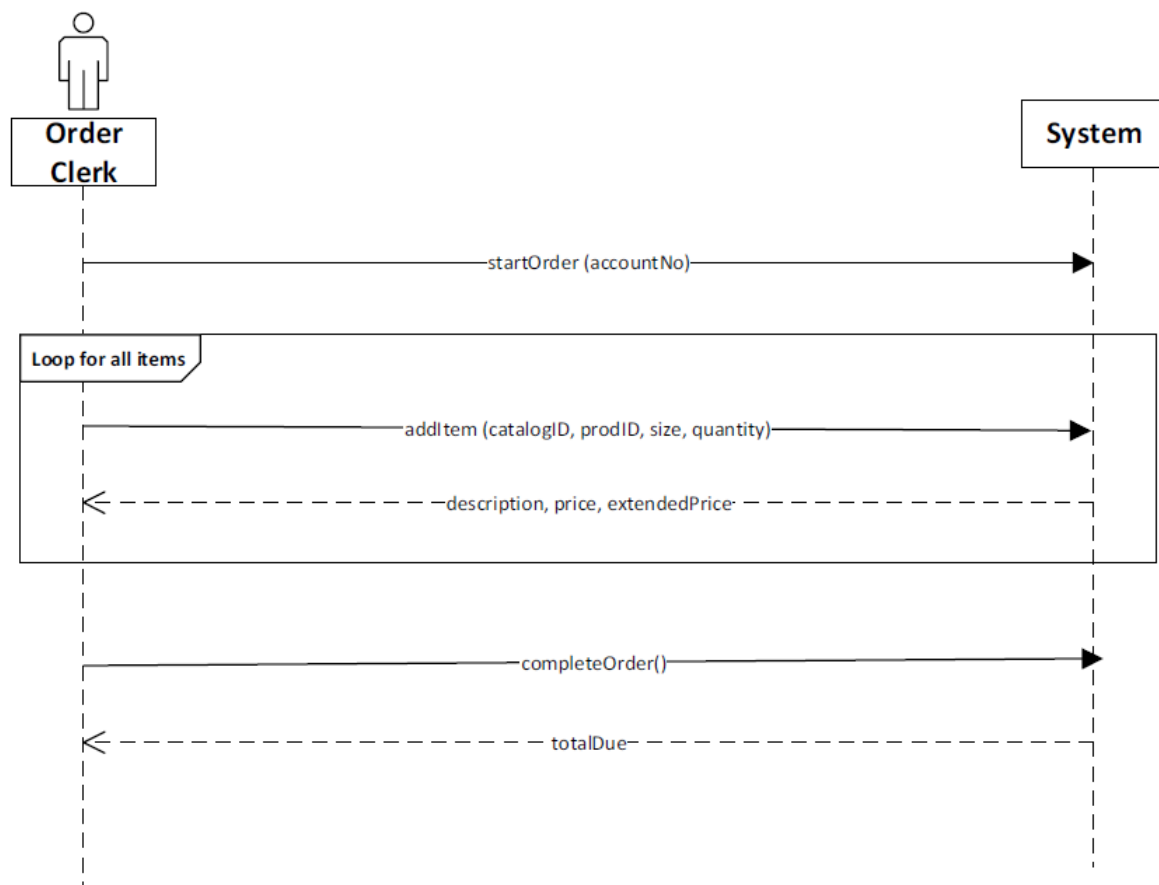
No data layer visibility

30 marks

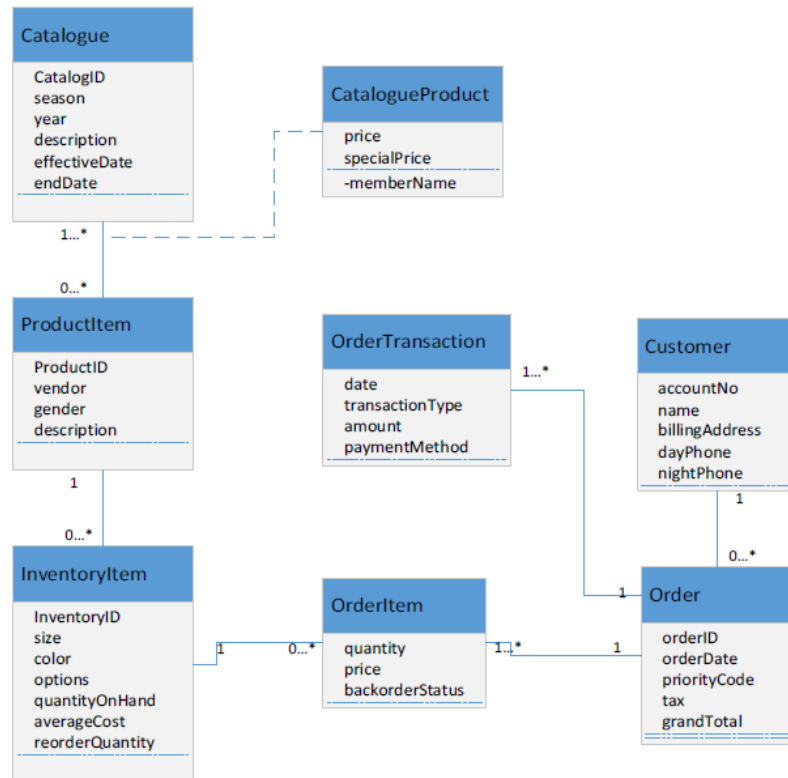*Figure 1 - Systems Sequence Diagram (Place a Telephonic Order)*

Figure 2 - Order Management System Class Diagram

Marking Guide

0 – No solution

25% – Poorly structured answer with little relevance to the question and the case provided

50% – Demonstrated some understanding of the concept. Relevant design consideration mentioned, but not that well justified

75% – Good understanding of concept with good justification

100% – Very good answer