

Tutorial Letter 103/1/2018

Object-Oriented Analysis ICT2622

Semester 1

School of Computing

IMPORTANT INFORMATION

Please register on myUnisa, activate your myLife e-mail address and make sure that you have regular access to the myUnisa module website, ICT2622-18-S1, as well as your group website where applicable.

Note: This is an online module and therefore it is available on myUnisa. However, in order to support you in your learning process, you will also receive some study material in printed format.

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ASSIGNMENT 2 QUESTIONS

Assignment Administration

Due Date	Refer to the class schedule on <i>myUnisa</i>
Submission Procedure	Electronically via <i>myUnisa</i>
Number of Questions	08
Total Marks	100
Contribution to Year Mark	40%
Unique Assignment Number	861872

Assignment Questions

Question 1 **[10]**

List and briefly describe the five (5) parts included in the description of a design pattern.

Question 2 **[10]**

List and briefly describe the five (5) activities of systems analysis.

Question 3 **[12]**

List and describe six (6) information gathering techniques.

Question 4 **[10]**

Consider the following narrative:

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 the request and monitors it until it is ordered and received.

Case workers process requests for the purchase of products under R1,500.00; write a purchase order; and then send it to the approved vendor. Purchase requests over R1,500.00 must first be sent out for bid from the vendor that supplies the product. When the bids return, the case worker selects one bid and then writes a purchase order and sends it to the vendor.

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

Question 5 **[10]**

Extreme Programming (XP) is an adaptive, Agile development methodology that was created in the mid-1990s. In **no more than two paragraphs**, discuss the core values of this methodology.

Question 6

[23]

Figure 2 below shows a domain class diagram for a ticket-processing system based on four classes (*Officer*, *Ticket*, *Driver* and *Court*) which includes attributes, associations and multiplicity.

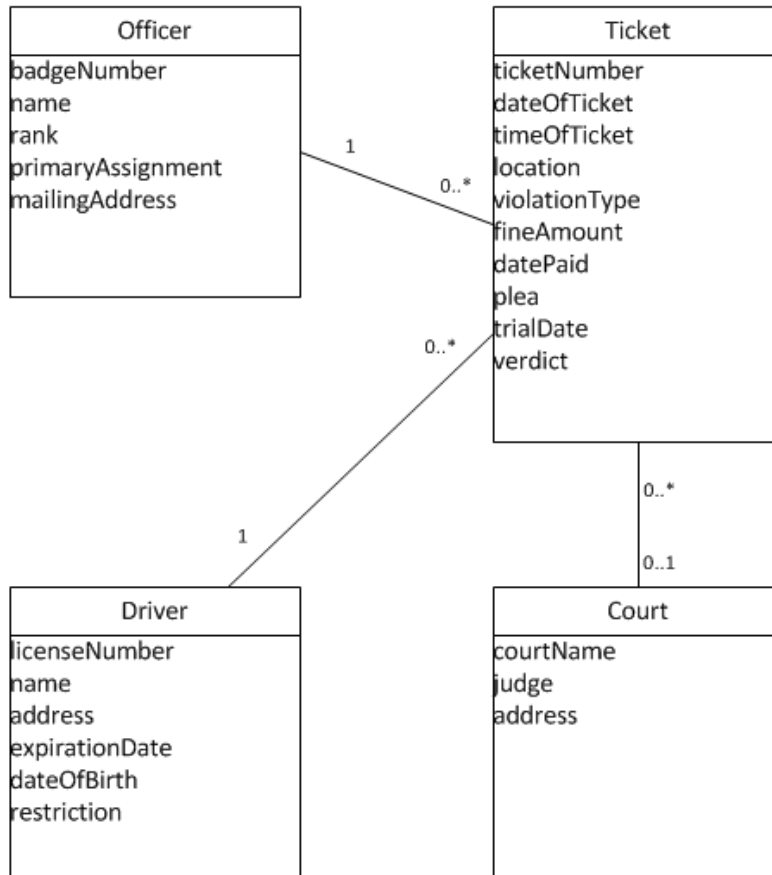


Figure 1: Domain class diagram for a ticket-processing system

- 6.1 Create a set of CRC cards showing these classes, responsibilities and collaborations. (13)
- 6.2 Draw a design class diagram based on your CRC cards. Include method names. (10)

Question 7

[15]

Figure 13-32 in the prescribed textbook shows an activity diagram for a *Return Books* use case of a university library system. Develop a first-cut sequence diagram that only includes the actor and problem domain classes.

Question 8

[10]

Fully describe the process that must to be followed to do use case realization with CRC cards.