

Comp 319 Software Engineering II

Tutorial 6 Actor model and Quality Management

Actor model and concurrency

Question 1 Define the following terms:

Monitor, task, thread and deadlock.

Question 2 Why can deadlock be difficult to determine by code testing?

Question 3 What is the lost update problem?

Question 4 Describe the following features of the Actor model

Actor messaging

Actor actions

Fair scheduling

Strong and weak mobility and how this works with Actors.

Quality Management

Code review exercise

Download and review the source code, sms_manager_v3.zip

This has configuration parameters for SMS drivers read from an XML file.

Question 5 How secure in terms of data integrity is this type of configuration.

Question 6 How would you recommend to improve the integrity of the configuration file, sms.xml

Question 7 What is reliability growth modelling?