**LETTERKENNY INSTITUTE OF TECHNOLOGY  
ASSIGNMENT COVER SHEET**

Student’s name: Dietmar Steiner

Word Count: 0

I confirm that the work submitted has been produced solely through my own efforts.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lecturer’s name: Nigel Kelvey

Assessment Title: Assignment

Work to be submitted to: Nigel Kelvey

Date for submission of work:

Place and Time for submitting work:

Notes

Penalties: The total marks available for an assignment is reduced by 15% for work submitted up to one week late. The total marks available are reduced by 30% for work up to two weeks late. Assignment work received more than two weeks late will receive a mark of zero. (Incidents of alleged plagiarism and cheating are dealt with in accordance with the Institute’s Assessment Regulations).

Plagiarism: Presenting the ideas etc. of someone else without proper acknowledgement (see section L1 paragraph 5).

Cheating: The use of unauthorised material in a test, exam etc., unauthorised access to test matter, unauthorised collusion, dishonest behaviour in respect of assessments, and deliberate plagiarism (see section L1 paragraph8).

Continuous Assessment: For students repeating an examination, marks awarded for continuous assessment, shall normally be carried forward from the original examination to the repeat examination.

Workflow Job Queue

# Introduction

In Workflow Systems (Workflow Management Coalition, 1995) a workflow contains a number of jobs to be carried out. To facilitate distribution and resource management Job Queues are used. Job Queues contains jobs from many workflows and are a means to use computer resources efficiently by being job unaware. The job knows what to do. Workflow jobs are sent to a queue to be executed. The queue then takes a job out of the queue when resources are available and executes the job.

Requirements   
Only a certain amount of threads can be started by the queue to not overload the system.  
Only a certain amount of jobs waiting is allowed. If the number of jobs waiting is at the maximum amount the queue does not accept further jobs to be added to the queue.  
When the queue is shutdown all jobs within the queue have to be finished before the shutdown.

# References

Workflow Management Coalition (1995). *The Workflow Reference Model*. from <http://www.wfmc.org/standards/docs/tc003v11.pdf>