FIT3142 Tutorial #3
Hardware and Systems in Distributed Computing

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October 2, 2018

Revision Status:

$Id: FIT3142-Tutorial-3.tex,v 1.3 2018/10/02 00:39:49 carlo Exp carlo $

Contents

1 Tutorial Format

Preparation is required for this tutorial. Do not plan to complete the tutorial preparation during the tutorial.

Students should produce written answers to the tutorial questions prior to starting the tutorial.

The answers will be reviewed in a question and answer format during the tutorial. Each student will explain their answer.

Students will need to submit their answers before each tutorial via Moodle [Turnitin].

All questions are based on lecture slides, and lecture slides are in effect the "answer sheets" for these tutorials.

Worked answers **will not be posted after tutorials as the answers are already in the lecture slides**.

2 Tutorial Questions

2.1 Question 1 (25%)

Explain the difference between a *Distributed System* and a *Parallel System*. When is a *Distributed System* also a *Parallel System*, and vice versa?

2.2 Question 2 (25%)

How do the *latency* and *throughput (bandwidth)* of the interconnect in a cluster influence the performance of the cluster?

2.3 Question 3 (25%)

Explain the limitations of metrics such as FLOPS, MOPS and MIPS [Hint: reread FIT2069 Topics 11 and 12]. Explain the term *Scalability*. How is it measured or calculated?

2.4 Question 4 (25%)

Explain the differences between a *Distributed Storage System* and a *Conventional Storage System*.