

School of Computer Science

# OPERATING SYSTEMS

COMP30640

I declare that this submission is my own work.

# **Single Node Map Reduce**

### **SNMR** contents:

- Bash files:
  - o job\_master.sh
  - o map.sh
  - o reduce.sh
- Pipes:
  - o map\_pipe
  - reduce\_pipe
- Semaphores:
  - o P\_file.sh and V\_file.sh
  - o P\_map.sh and V\_map.sh
  - o P\_reduce.sh and V\_reduce.sh
- Files\_Folder
  - o SalesJan2009aa
  - o SalesJan2009ab
  - o SalesJan2009ac
  - o SalesJan2009ad
  - o SalesJan2009ae

## To execute MapReduce:

To run the MapReduce on a set of files, change the variable dir\_name to the path of files\_folder on the system it is being executed on. Then execute job\_master.sh through the terminal. Within this code, the map.sh and reduce.sh functions will also be executed.

### How it works:

8/10 times, job\_master.sh will get stuck somewhere within the program. When it does fully complete, it will output the results on for Product1. The report outlines what has been implemented to solve these problems.