# **CAB403 SYSTEM PROGRAMMING**

Student: Ningyuan PAN Student No: N8491283

### Completeness:

This online ATM system implement the thread pool to handle multiple clients, most of the tasks were finished. However, due to the constraint of knowledge and time, the following functionalities were not able to be implemented:

- a. External transfer
- b. Transaction list

Also several bugs were founded which include:

- a. Transaction recording and reading may not work properly
- b. Server aborted when client exit
- c. Client may not exit normally
- d. Thread may not work properly
- e. Port errors occurred during test

Some of them were fixed yet they may appear sometimes.

## Synchronization Primitives:

The program uses mutax lock to ensure the data safety.

#### Data Structures:

The data structure that used in this program is linked list, which includes:

- a. A list contains all the user information
- b. A list contains the request from client
- c. A list contains the balance of each accounts
- d. A list contains the record of transactions

#### Contribution:

This assignment were completed individually.