**COMP9331 Assignment 1**

**Implementation of Peer-to-Peer Network using Distributed Hash Table**

Name：Yu Zhang

Student ID: z5238743

**1. Environment**

Development environment: Python 3.7 on mac

Test environment: Python 3.7 on CES VLab

**2. How to use it**

1. For cse lab machine only.

2. Open Terminal or iTerm to go to my working directory.

3. First step:

Run: python3 p2p.py init x y z 30

Example: python3 p2p.py init 2 4 5 30

python3 p2p.py init 4 5 8 30

python3 p2p.py init 5 8 9 30

python3 p2p.py init 8 9 14 30

python3 p2p.py init 9 14 19 30

python3 p2p.py init 14 19 2 30

python3 p2p.py init 19 2 4 30

(every line must open new Terminal or iTerm in my working directory to input.)

4. When all peer connect to first successor and second peer.

5. In Step 3 Peer Joining, open Terminal or iTerm to go to my working directory

Run：python3 p2p.py join x y 30

Example：python3 p2p.py join 15 4 30

6. When all peer connect to new first successor and new second peer

7. In step 4 Peer Departure(Graceful), in one Terminal input Quit

This command is to let the current peer exit p2p network

8.In step 5 Peer Departure(Abrupt), in one Terminal use Ctrl + C, which means the peer has

already crashed

9.In step 6 Data Insertion, in one Terminal input Store xxxx(0<xxxx<9999), this command is using to store a file in built p2p network

Run: Store xxxx

Example: Store 2067

10.In step 7 Data Retrival, in one Terminal input Request xxxx(0<xxxx<9999), this command is using to request a file in built p2p network

Run: Request xxxx

Example: Request 4103