Marking Criterion	Max Score	Actual Score
1.Ping successors (24 marks) • Correct ping request messages • Correct ping response messages	 16.5 7.5	
2. Peer departure (graceful) (17 marks) • Able to use standard I/O • Peer departure detected message (ex: Peer 9 will depart from the network) • Correct first & second successor update messages	 1 4 12	
3. Data Insertion (11 marks) • Correct file request forward messages (ex: File Store 2067 request forward to my successor) • Correct file request accepted messages	 6.5 4.5	
4. Peer Joining (14 marks) • Correct peer joins forward messages (Ex: Peer 12 Join request forward to my successor) • Peer Join request accept, and correct successor update	 3 11	
5. **Peer departure (abourt) (12 marks)** • Correct identification of killed Peer (Ex: Peer 38 is no longer alive) • Correct successor updates	 2 10	
6. Data Retrieval (12 marks) • Correct file request forward messages (Ex: File 4567 is not stored here) • Identify the peer with requested file and file the transfer. • Transferred files' content match with original file 100%	 3 7 2	
7.Other (10 marks) Source code design, comments	 10	

Test case 1

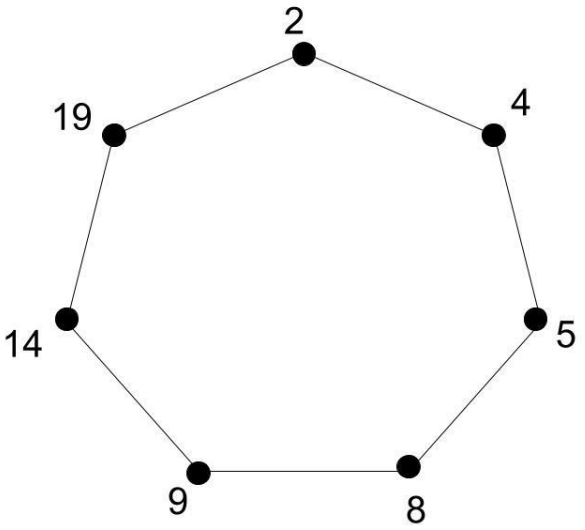

Figure 01

1 Ping successors

1.1 Peer 2

- Ping requests were sent to Peer 4 and 5
- Ping request message received from peer 19
- Ping request message received from peer 14
- Ping response received from peer 4
- Ping response received from peer 5

1.2. Peer 4

- Ping requests were sent to Peer 5 and 8
- Ping request message received from peer 2
- Ping request message received from peer 19
- Ping response received from peer 5
- Ping response received from peer 8

1.3. Peer 5

- Ping requests were sent to Peer 8 and 9
- Ping request message received from peer 2
- Ping request message received from peer 4
- Ping response received from peer 8

- Ping response received from peer 9

1.4. Peer 8

- Ping requests were sent to Peer 9 and 14
- Ping request message received from peer 4
- Ping request message received from peer 5
- Ping response received from peer 9
- Ping response received from peer 14

1.5. Peer 9

- Ping requests were sent to Peer 14 and 19
- Ping request message received from peer 5
- Ping request message received from peer 8
- Ping response received from peer 14
- Ping response received from peer 19

1.6. Peer 14

- Ping requests were sent to Peer 19 and 2
- Ping request message received from peer 9
- Ping request message received from peer 19
- Ping response received from peer 19
- Ping response received from peer 2

1.7. Peer 19

- Ping requests were sent to Peer 2 and 4
- Ping request message received from peer 14
- Ping request message received from peer 9
- Ping response received from peer 2
- Ping response received from peer 4

2 Peer departure (graceful)

Peer 9 depart from the network by entering “Quit” on terminal

2.1. Peer 9

- Quit (Able to use standard I/O)

2.2. Peer 8

- Peer 9 will depart from the network
- My new first successor is peer 14
- My new second Successor is peer 19

2.3. Peer 5

- Peer 9 will depart from the network
- My new first successor is peer 8

- My new second Successor is peer 14

2.4. Peer 8

- Ping request message received from peer 5
- Ping request message received from peer 4

2.5. Peer 14

- Ping request message received from peer 8
- Ping request message received from peer 5

3 Data Insertion

Peer 8 request to store File name 2067 which will be stored in peer 19

3.1. Peer 8

- File Store 2067 request forward to my successor

3.2. Peer 14

- File Store 2067 request forward to my successor

3.3. Peer 19

- File Store 2067 request accepted

4 Peer Joining

Peer 15 is joining to the network peer 12 only knows about peer 4's details

Correct position of peer 12 is between peer 14 and peer 19

4.1. Peer 4

- Peer 15 Join request forward to my successor

4.2. Peer 8

- Peer 15 Join request forward to my successor

4.3. Peer 14

- Peer 15 Join request received
- My new first successor is peer 15
- My new second Successor is peer 19

4.4. Peer 9

- Successor Change request received
- My new first successor is peer 14
- My new second Successor is peer 15

4.5. Peer 15

- Join request has been accepted
- My first Successor is Peer 19

My second Successor is Peer 2

5 Peer departure (abourt)

kill peer 14 by pressing ctrl+c in the terminal (use original network)

5.1. Peer 9

- Peer 14 is no longer alive
- My new first successor is peer 19
- My new second Successor is peer 2

5.2. Peer 8

- Peer 14 is no longer alive
- My new first successor is peer 9
- My new second Successor is peer 19
- Peer 2 & peer 19 are received updated ping messages

5.3. Peer 2

- Ping request message received from peer 19
- Ping request message received from peer 14

5.4. Peer 19

- Ping request message received from peer 14

Ping request message received from peer 9

6 Data Retrieval

Peer 2 requests a file by entering "Request 4103" on its xterm terminal which is stored in peer 8

6.1. Peer 2

- Request 4103
- File request for 4105 has been sent to my successor

6.2. Peer 5

- File 4103 is not stored here; file request message has been forwarded to my successor successfully

6.3. Peer 8

- File 4103 is stored here
- Start sending file 4103 to peer 2
- The file has been sent

6.4. Peer 2

- Peer 8 got the file 4103
- Start receiving file 4103 from peer 9
- The file is received

After that compare original file and new file using
diff 4103.pdf received_4103.pdf