





Output File

1. Screenshot of the Super Peer

 Console 

```
Peer (2) [Java Application] C:\Program Files\Java\jdk1.8.0_161\bin\javaw.exe (14-Oct-2018, 9:26:00 PM)
Please enter the Peer ID as configured in the Configuration Properties File
1
Session for peer id: 1 started...
Acting as super peer
```

2. Screenshot of a Leaf node

 Console 

```
Peer (2) [Java Application] C:\Program Files\Java\jdk1.8.0_161\bin\javaw.exe (14-Oct-2018, 9:26:35 PM)
Please enter the Peer ID as configured in the Configuration Properties File
2
Session for peer id: 2 started...
Welcome to search and download:
Options available:
1. Search/download file
2. Test the Average Response Time for a single client performing multiple sequential search Requests
```

3. Screenshot of Super Peer after the leaf node is registered.

```
Console
Peer (2) [Java Application] C:\Program Files\Java\jdk1.8.0_161\bin\javaw.exe (14-Oct-2018, 9:26:00 PM)
Please enter the Peer ID as configured in the Configuration Properties File
1
Session for peer id: 1 started...
Acting as super peer

File Added: a - Copy (3).txt | Peer ID: 2 | IP:Port Number: 2000

File Added: a - Copy - Copy.txt | Peer ID: 2 | IP:Port Number: 2000

File Added: a - Copy.txt | Peer ID: 2 | IP:Port Number: 2000
```

4. Screenshot of the leaf node demonstrating file download

```
Console
Peer (2) [Java Application] C:\Program Files\Java\jdk1.8.0_161\bin\javaw.exe (14-Oct-2018, 9:26:35 PM)
Please enter the Peer ID as configured in the Configuration Properties File
2
Session for peer id: 2 started...
Welcome to search and download:
Options available:
1. Search/download file
2. Test the Average Response Time for a single client performing multiple sequential search Requests
1
Enter file name to search:
a.txt
Message id for search: Peer2.Search1
Paths searched are:
a.txt File found in the network at below peers
Found at Peer with peer ID: 2 , running on port:2000
Enter peer ID to download the file from:
2
Downloading from localhost:2000
file a.txt
File copied
```

5. Screenshot of the leaf node demonstrating the calculation of average response time for a single client performing multiple sequential search requests

```
Console
Peer (2) [Java Application] C:\Program Files\Java\jdk1.8.0_161\bin\javaw.exe (14-Oct-2018, 9:26:40 PM)
Please enter the Peer ID as configured in the Configuration Properties File
3
Session for peer id: 3 started...
Welcome to search and download:
Options available:
1. Search/download file
2. Test the Average Response Time for a single client performing multiple sequential search Requests
2
How many iterations??
500
Enter file name to search:
a.txt
Message id for search: Peer3.Search1
average response time taken in nano seconds:216
```