

OUTPUT Screenshots

1) All the servers and clients are up.

Below is the screenshot of all the clients and servers running.

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer1
[java] Starting server at 9991
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :
```

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer2
[java] Starting server at 9992
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :
```

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer3
[java] Starting server at 9993
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :
```

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer4
[java] Starting server at 9994
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :
```

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer5
[java] Starting server at 9995
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :
```

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer6
[java] Starting server at 9996
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown client
[java] Enter your choice :
```

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer7
[java] Starting server at 9997
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown client
[java] Enter your choice :
```

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer8
[java] Starting server at 9998
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :
```

2) Registering a file

Enter the fileName as asked and press enter. The file gets replicated on two servers

[illegible]

3) Search and download the file

Enter the filename as asked and press enter

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer1
[java] File(s) registered on the distributed hash table
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer2
[java] Starting server at 9992
[java] **** nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer4
[java] ** [java] Enter your choice :
[java] ** 2
[java] ** [java]
[java] [java] 1. [java] Enter name of the file to search :
[java] [java] 2. nikhil.txt
[java] [java] 3.
[java] En [java]
[java] [java] File found at these peers :
[java] [java] Peer 0 - 192.168.1.141|9981
[java] [java] Peer 1 - 192.168.1.141|9987
[java] [java] Peer 2 - 192.168.1.141|9988
[java] [java]
[nikhil@] [java] Do you wish to download the file? (Y/N)
[java] ** y
[java] ** [java]
[java] [java] 1. [java] Enter peer number to download the file from :
[java] [java] 2.0
[java] [java] 3.
[java] En [java]
[java] [java] Connecting to peer (192.168.1.141|9981) to download the file
[java] [java] Downloading file. Please wait....
[java] [java] File Downloaded Successfully !!
[java] [java] *****
[java] [java] * Distributed Hash Table *
[java] [java] *****
[java] [java] 1. Register file on server
[java] [java] 2. Search and download file
[java] [java] 3. Shutdown Client
[java] [java] Enter your choice :
```

4) Downloading file from replica

Enter the name of the file. The primary server is brought down so the file will be found on the replica. A message will be given saying the **“Server down!! Calling replica”**

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer1
[java] File(s) registered on the distributed hash table
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer1
[java] Starting server at 9995
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer4
[java] Enter name of the file to search :
nikhil.txt
[java] *****
[java] * Distri
[java] *****
[java] 1. Regist
[java] 2. Search
[java] 3. Shutdo
[java] Enter you
[java] Server down!! calling replica
[java]
[java] File found at these peers :
[java] Peer 0 - 192.168.1.141:9981
[java] Peer 1 - 192.168.1.141:9987
[java] Peer 2 - 192.168.1.141:9988
[java]
[java] Do you wish to download the file? (Y/N)

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer7
[java] Starting
[java]
[java] *****
[java] * Distri
[java] *****
[java] 1. Regist
[java] 2. Search
[java] 3. Shutdo
[java] Enter you
[java] Enter peer number to download the file from :
[java]
[java] Connecting to peer (192.168.1.141:9981) to download the file
[java] Downloading file. Please wait....
[java] File Downloaded Successfully !!
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Register file on server
[java] 2. Search and download file
[java] 3. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/Assignment_2/peer8
[java] replica of the file will be downloaded on this server
[java] You will receive message when the file gets downloaded.
[java] You may proceed with the menus above
[java] Downloading file. Please wait....
[java] File Downloaded Successfully !!
```