Manual

Starting the servers and the clients

1) Go to folder **FileSharingSystem** and open **config.properties**
    a. Enter the IP address and port number of all the eight servers as shown below. In case of multiple servers on the same system make sure to use different ports for the servers

```
##Server details
server.ip.0=192.168.1.113
server.ip.1=192.168.1.113
server.ip.2=192.168.1.113
server.ip.3=192.168.1.113
server.ip.4=192.168.1.113
server.ip.5=192.168.1.113
server.ip.6=192.168.1.113
server.ip.7=192.168.1.113

server.port.0=9991
server.port.1=9992
server.port.2=9993
server.port.3=9994
server.port.4=9995
server.port.5=9996
server.port.6=9997
server.port.7=9998
```

    b. Enter the port number of the file sender part of the client as shown below. If all the client and servers are on the same system make sure to use different ports

```
downloader.port.0=9981
downloader.port.1=9982
downloader.port.2=9983
downloader.port.3=9984
downloader.port.4=9985
downloader.port.5=9986
downloader.port.6=9987
downloader.port.7=9988
```

    c. Enter the port number where the current server will listen. It should be same as one of the above port numbers from point (a) because this current server is one of the eight servers.

```
##acting as server 0 in above details
client.port=9991
```

d. Enter the port number of the current filesender. It should be same as one of the above filesender ports mentioned in point (b)

```
##The file sender listens on this port
sender.port=9981
```

e. Enter the replication factor as shown below

```
##decides how many replicas to make
replication.factor=2
```

f. Enter file download and share directories

```
##Directory where the files are kept for sharing with other peers
peer.share.fileDir=/home/nikhil/AOS/Assignment_2/peer1/share/

##Directory where the files will be downloaded
peer.download.fileDir=/home/nikhil/AOS/Assignment_2/peer1/downloads/
```

2) Open terminal

3) Go to directory **FileSharingSystem**

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC:~$ cd AOS/test/Assignment_2/FileSharingSystem/
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC:~/AOS/test/Assignment_2/FileSharingSystem$
```

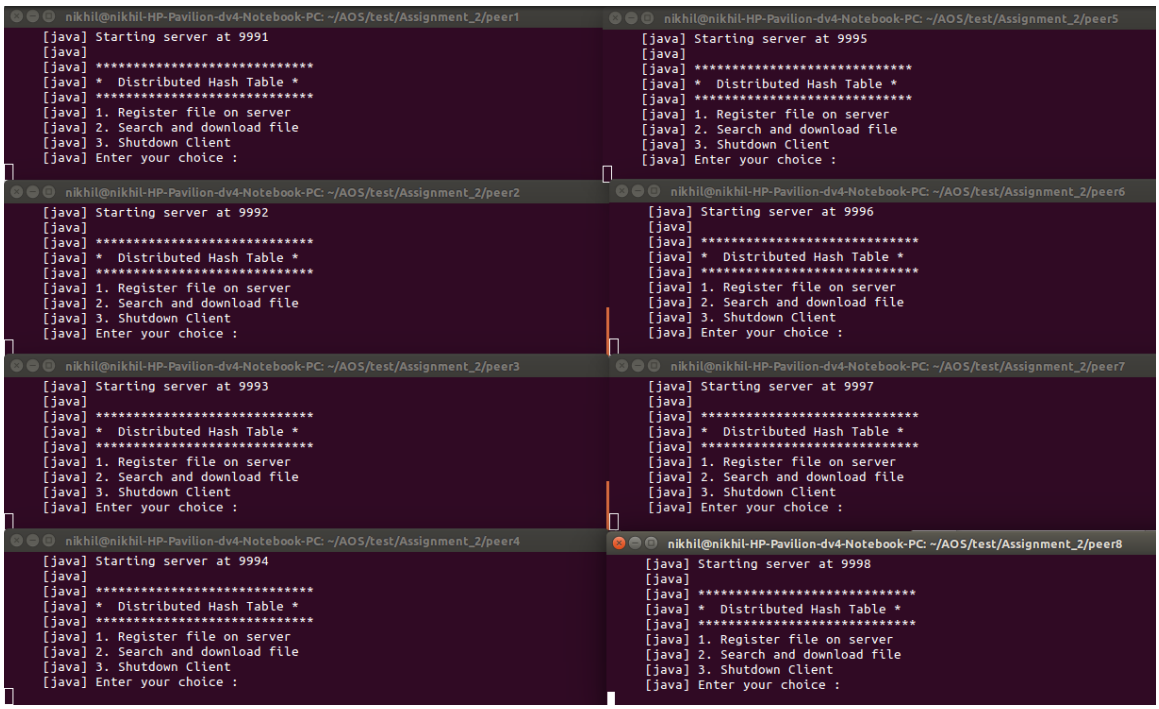
4) Type command : **ant run**

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC:~/AOS/test/Assignment_2/FileSharingSystem$ ant run
Buildfile: /home/nikhil/AOS/test/Assignment_2/FileSharingSystem/build.xml

clean:

compile:
    [mkdir] Created dir: /home/nikhil/AOS/test/Assignment_2/FileSharingSystem/build/classes
    [javac] /home/nikhil/AOS/test/Assignment_2/FileSharingSystem/build.xml:9: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath
=last; set to false for repeatable builds
    [javac] Compiling 10 source files to /home/nikhil/AOS/test/Assignment_2/FileSharingSystem/build/classes

jar:
    [mkdir] Created dir: /home/nikhil/AOS/test/Assignment_2/FileSharingSystem/build/jar
      [jar] Building jar: /home/nikhil/AOS/test/Assignment_2/FileSharingSystem/build/jar/Client.jar

run:
     [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 :
```

The client and the associated server is started

5) Repeat steps 2 to 4 for remaining 7 servers and clients

Below is the screenshot when all eight servers and clients are up.



Running a Performance Test

For the perf test you will need to make some changes to the test java file (DistributedHashTablePerfTest.java) like filename format and server Ips.

6) Before starting the perf test make all eight servers are up. Run steps (1 to 5 from above)

7) open terminal

8) Go to directory **FileSharingSystem**

9) Type command : **ant runtest**