

Manual

Starting the servers and the clients

- 1) Go to folder DHT_SourceCode 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=192.168.1.124
server.ip.1=192.168.1.124
server.ip.2=192.168.1.124
server.ip.3=192.168.1.124
server.ip.4=192.168.1.124
server.ip.5=192.168.1.124
server.ip.6=192.168.1.124
server.ip.7=192.168.1.124

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 where the current server will listen. It should be same as one of the above port numbers because this current server is one of the eight servers.

```
##client port number where the client will keep listening
##acting as server 0 in above details
client.port=9991
```

- 2) Open terminal
- 3) Go to directory DHT_SourceCode

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC:~$ cd AOS/DHT_SourceCode/
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC:~/AOS/DHT_SourceCode$
```

4) Type command : ant run

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

clean:
[delete] Deleting directory /home/nikhil/AOS/DHT_SourceCode/build

compile:
[mkdir] Created dir: /home/nikhil/AOS/DHT_SourceCode/build/classes
[javac] /home/nikhil/AOS/DHT_SourceCode/build.xml:9: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false f
or repeatable builds
[javac] Compiling 6 source files to /home/nikhil/AOS/DHT_SourceCode/build/classes

jar:
[mkdir] Created dir: /home/nikhil/AOS/DHT_SourceCode/build/jar
[jar] Building jar: /home/nikhil/AOS/DHT_SourceCode/build/jar/Client.jar

run:
[java] Starting server at 9991
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. 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.

```
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer1
[java] Starting server at 9991
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer2
[java] Starting server at 9992
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer3
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer4
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer5
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer6
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer7
[java] Starting server at 9997
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :

nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer8
[java] Starting server at 9998
[java]
[java] *****
[java] * Distributed Hash Table *
[java] *****
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :
```

Running a Performance Test

- 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 DHT_SourceCode
- 9) Type command : ant runtest