

Case 1: Register

```
Terminal
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT
jar: [mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build
d/jar [jar] Building jar: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build/jar/Peer.jar
run: [java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
1
[java] Below files got registered
[java]
[java] Netherland.txt
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT2
abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT3
abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT4
abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT5
run: [java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
downloaded successfully !!!
```

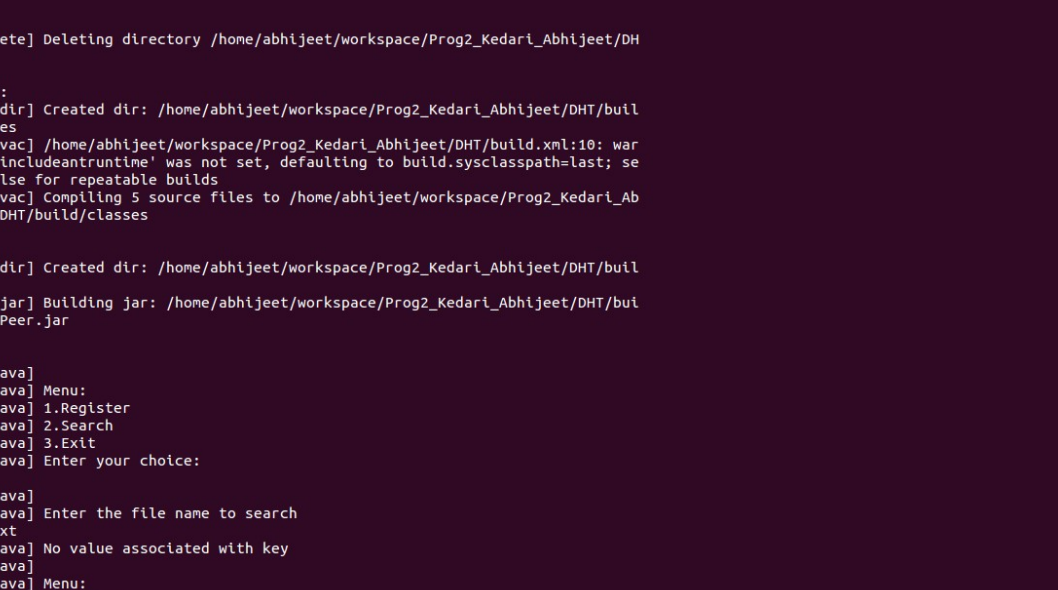
As replication factor was 1. File got downloaded on one of 8 server that is server #5

```
Terminal
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT2
jar:
[mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build/jar
[jar] Building jar: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build/jar/Peer.jar
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
1
[java] Below files got registered
[java]
[java] Netherland.txt
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
2
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
3
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
3
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT5
[javac] Compiling 5 source files to /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT5/build/classes
jar:
[mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT5/build/jar
[jar] Building jar: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT5/build/jar/Peer.jar
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
3
[java] File downloaded successfully !!!
```

Case 2: Search - Successful search

```
Terminal
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT
[java] Below files got registered
[java]
[java] Netherland.txt
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT
ld/jar/Peer.jar
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT3
ld/jar/Peer.jar
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
[java] Enter the file name to search
Netherland.txt
[java]
[java] File :Netherland.txt is available on below address:
[java]
[java] ->192.168.1.136@1110
[java]
[java] ->192.168.1.136@5550
[java]
[java] Please enter the number from which you want to download it.
[java]
[java] [Pleaee enter the value between 1 to 2]
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT5
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
[java] File downloaded successfully !!!
```

Unsuccessful search -



```
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT
^C
Buildfile: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build.xml

Clean:
[delete] Deleting directory /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build

compile:
[mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build/classes
[javac] /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build.xml:10: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false for repeatable builds
[javac] Compiling 5 source files to /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build/classes

jar:
[mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build/jar
[jar] Building jar: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build/jar/Peer.jar

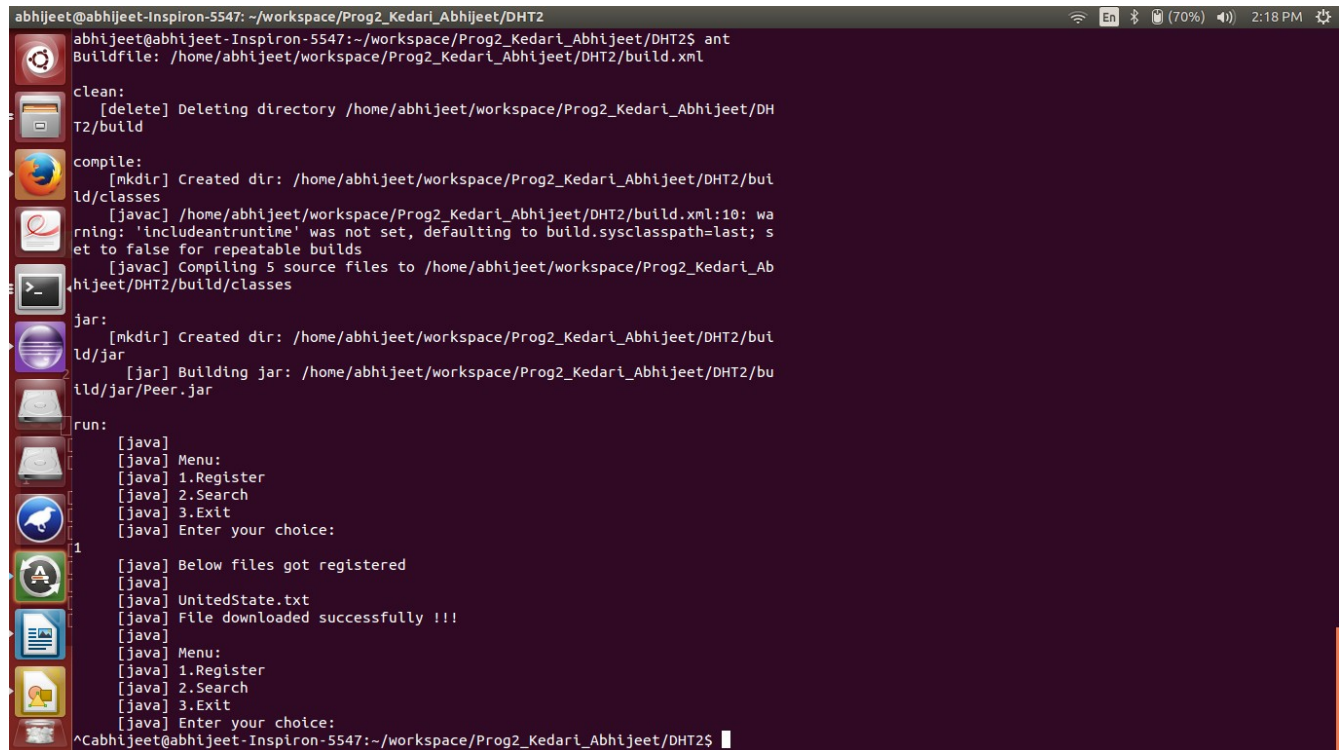
run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
2
[java]
[java] Enter the file name to search
India.txt
[java] No value associated with key
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
```

[illegible]

```
Terminal
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/
Buildfile: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/building: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; s
clean: [delete] Deleting directory /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build
compile: [mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build/classes
[javac] Compiling 5 source files to /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT/build/classes
run: [java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
[java] File downloaded successfully !!!

abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT3
Buildfile: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT3/building: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; s
clean: [delete] Deleting directory /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT3/build
compile: [mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT3/build/classes
[javac] Compiling 5 source files to /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT3/build/classes
run: [java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
[java] File downloaded successfully !!!
```


Case 5- If we killed one of the server instance



```
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT2
abhiijeet@abhiijeet-Inspiron-5547:~/workspace/Prog2_Kedari_Abhiijeet/DHT2$ ant
Buildfile: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build.xml

clean:
[delete] Deleting directory /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build

compile:
[mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build/classes
[javac] /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build.xml:10: warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false for repeatable builds
[javac] Compiling 5 source files to /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build/classes

jar:
[mkdir] Created dir: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build/jar
[jar] Building jar: /home/abhiijeet/workspace/Prog2_Kedari_Abhiijeet/DHT2/build/jar/Peer.jar

run:
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
1
[java] Below files got registered
[java]
[java] UnitedState.txt
[java] File downloaded successfully !!!
[java]
[java] Menu:
[java] 1.Register
[java] 2.Search
[java] 3.Exit
[java] Enter your choice:
^Cabhiijeet@abhiijeet-Inspiron-5547:~/workspace/Prog2_Kedari_Abhiijeet/DHT2$
```

Search and Tried to download file from server who is down –

- So here in above screen shot the main server is down who contain Hash Table, Still we are able to find the address of server containing file “UnitedState.txt”.
- This is data resilience support.
- File does not get download successfully, if tried to download from server who is down. (see below screen shot)

```
Terminal
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/
[Java] Enter the file name to search
India.txt
[Java] No value associated with key
[Java] Menu:
[Java] 1.Register
[Java] 2.Search
[Java] 3.Exit
[Java] Enter your choice:
3
[Java] 3.Exit
[Java] Enter your choice:
2
[Java] Server down !!!

abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT8
[Java] Enter the file name to search
UnitedState.txt
[Java] File :UnitedState.txt is available on below address:
[Java] ->192.168.1.136@2220
[Java] ->192.168.1.136@3330
[Java] Please enter the number from which you want to download it.
[Java] [Pleae enter the value between 1 to 2]
1
[Java] Menu:
[Java] 1.Register
[Java] 2.Search
[Java] 3.Exit
[Java] Enter your choice:
3
[Java] 3.Exit
[Java] Enter your choice:
[Java] Server down !!!

abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT2
[Java] Below files got registered
[Java] UnitedState.txt
[Java] File downloaded successfully !!!
[Java] Menu:
[Java] 1.Register
[Java] 2.Search
[Java] 3.Exit
[Java] Enter your choice:
2
[Java] 2.Search
[Java] Enter the file name to search
ue dgdgfd associated with key
[Java] Server down !!!

abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT3
[Java] Server down !!!

abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT5
[Java] Server down !!!
```

- But you can get it successfully download from it's replica server (see below screen shot)

```
abhiijeet@abhiijeet-Inspiron-5547: ~/workspace/Prog2_Kedari_Abhiijeet/DHT8
UnitedState.txt
[Java] File :UnitedState.txt is available on below address:
[Java] ->192.168.1.136@2220
[Java] ->192.168.1.136@3330
[Java] Please enter the number from which you want to download it.
[Java] [Pleae enter the value between 1 to 2]
1
[Java] Menu:
[Java] 1.Register
[Java] 2.Search
[Java] 3.Exit
[Java] Enter your choice:
2
[Java] 2.Search
[Java] Enter the file name to search
UnitedState.txt
[Java] File :UnitedState.txt is available on below address:
[Java] ->192.168.1.136@2220
[Java] ->192.168.1.136@3330
[Java] Please enter the number from which you want to download it.
[Java] [Pleae enter the value between 1 to 2]
2
[Java] File downloaded successfully !!!
[Java] Menu:
[Java] 1.Register
[Java] 2.Search
[Java] 3.Exit
[Java] Enter your choice:
```

