#### **OUTPUT Screenshots**

## 1) All the servers and clients are up.

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

```
[java] Starting server at 9992
      java] Starting server at 9991
                                                                                                     java]
                                                                                                    [java] **

[java] **

[java] **

[java] 1. Put

[java] 2. Get

[java] 3. Delete

[java] 3. Shutdown Client

[java] Enter your choice :
     [java]
[java] * Distributed Hash Table *
[java] **
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 3. Shutdown Client
[java] Enter your choice :
nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer5
                                                                                                     [java] * Distributed Hash Table * [java] * Distributed Hash Table * [java] * Distributed Hash Table * [java] 1. Put [java] 2. Get [java] 3. Delete [java] 4. Shutdown Client [java] Enter your choice :
     []ava] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :
                                                                                                     [java] Starting server at 9998
    [java] Starting server at 9997
    *********
                                                                                                             * Distributed Hash Table *
            * Distributed Hash Table *
    [java]
                                                                                                     [java]
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :
```

# 2) Putting a key-value pair

Enter the key and value as asked and press enter

```
[java] Starting server at 9992
[java]
     Ð
                            H
                  nikhi<sub>1</sub>
                             [java] Enter Key :
     [java]
[java] ******/Key12
[java] * Di:
[java] ******/Value
[java] 1. Put
[java] 2. Get
[java] 3. Del
[java] 4. Shu
[java] Enter
             ******Key123
                             [java] Enter Value :
123
                            [java] 1.
[java] 1.
[java] 2.
[java] 4..... [java] 2.
[java] 5..... [java] 4.
[java] 1. Put [java] En
[java] 2. Get [java] 4.
[java] 3. Delete
[java] 4. Shutdown Client [java] Enter your choice :
                                                                                                          [java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :
                                                                                                          [java] Starting server at 9997
     [java]
[java]
             *********
     [java]
[java] * Distributed Hash Table *
[java] * Distributed Hash Table *
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :
```

## 3) Getting a value for a given key

Enter the key as asked and press enter

```
🖽 🐉 Java
 [iava] kev-value pair succefully stored on the server !!
                                                                                                                                                                - -
                                                                                 itedHashTablePerfTest.java 🛭 🗓 ServerHashTable.java
                                                                                                                                                                       8
       [java]
[java]
[java]
                                                                                                                                                                       []ava]
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice
                                  @
                                                                                                                                                                       [java] Enter Key:
 [java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
                                         The value retrived from the server : Value123
                                   [java]
[java]
[java] Enter your choice
                                   java]
java]
java]
                                          * Distributed Hash Table *
                                  []ava]
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice:
                                                                                     [java] Starting server at 9998
[java]
[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
        Enter your choice :
```

#### 4) Deleting a key-value pair

Enter the key as asked and press enter

```
[java] key-value pair succefully stored on the server !!
java]
                                                                                                                                                                                                                                                                                                                                                [java] The value retrived from the server : Value123
[java]
[java]
                                                                                                                                                                                                                                                                                                                                             * Distributed Hash Table *
   [java]
 [java] [java] * Distributed [java] Starting server at 9998 [java] 1. Put [java] Starting server at 9998 [java] 2. Get [java] [java] * Distributed Hash Table * [
                                                                                                                           []ava]
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your choice :
' [java] Enter Key :
Key123
                                                                                                                             [java]
                                                                                                                                java] Succefully deleted !!
java]
                                                                                                                               [java]
                                                                                                                               [java] Starting server
    [java]
[java]
 Smart Insert 5:1
                                                                                                                                                                                                                                                                                                                                                       Writable
```

## 5) Invalid Key

Entered key size is greater than 24 so the error message is printed

```
key-value pair succefully stored on the server !!
                                                                                                                                                                                                                                                                                                                        The value retrived from the server : Value123
   [java]
[java]
[java]
                           *******
                           * Distributed Hash Table *
                                                                                                                                                                                                                                                                                                                      * Distributed Hash Table *
[java] 1. Put
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown Client
[java] Enter your ○ ○ □ nikhil@nikhil-HP-Pavilion-dv4-Notebook-PC: ~/AOS/peer5
[java] Enter your ○ ○ □ [java] Starting server at 9995
                                                                                            [java] Starting server at 9995
[java] [java]
  [java]
[java] *********
                                                                                                                      *********
[java] ************
[java] * Distribut
[java] **********
[java] 1. Put
[java] 2. Get
[java] 3. Delete
[java] 4. Shutdown
[java] 5. Enter your c2
                                                                                                                        * Distributed Hash Table *
                             [java] Enter Key :
public static
Key12345678909876543298765
Distribut [java]
                                                                                            //test.te
test.test
//test.te
                             private void
System.ou
System.ou
long star
********
                          * Distributed Hash Table *
                                                                                                                                                                                                                                                                                                                       * Distributed Hash Table *
```