ASSIGNMENT 3

Name:Xinyi Yun StudentID: 20230540

Output screenshot:

"SUBMIT" & "RETRIEVE" (normal situation):

```
Assignment3-Xinyi Yun - assignment3/src/assignment3/client.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
🕝 🖭 Problems @ Javadoc 🚇 Declaration 📮 Console 🗵
liclient [Java Application] D:\jdk\bin\javaw.exe (2021年3月19日下午5:51:03)
   Client: connected to server
   SUBMIT eagle
   Client: sent message to server
   Client: received message from server
                                        ok
   SUBMIT fox
   Client: sent message to server
   Client: received message from server
                                        ok
   SUBMIT dear
   Client: sent message to server
   Client: received message from server
                                        ok
   SUBMIT lion
  Client: sent message to server
   Client: received message from server
   SUBMIT falcon
   Client: sent message to server
   Client: received message from server
                                        ok
   RETRIEVE
   Client: sent message to server
   Client: received message from server Server: recieved RETRIEVE from client,
🛑 Assignment3-Xinyi Yun - assignment3/src/assignment3/client.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
🖆 🙎 Problems @ Javadoc 🚇 Declaration 📮 Console 🛭

■ server [Java Application] D:\jdk\bin\javaw.exe (2021年3月19日下午6:04:25)

  Server: waiting for a client to connect
   Server: client connected
  Server: client connected
  Server: received message from client1 : SUBMIT eagle'
  Add new token: eagle
  Server: client connected
  Server: client connected
  Server: received message from client1 : SUBMIT fox'
  Add new token: fox
  Server: client connected
  Server: client connected
  Server: received message from client1 : SUBMIT dear'
  Add new token: dear
  Server: client connected
   Server: client connected
  Server: client connected
   Server: client connected
  Server: received message from client1 : SUBMIT lion'
  Add new token: lion
  Server: client connected
  Server: client connected
  Server: received message from client1 : SUBMIT falcon'
  Add new token: falcon
  Server: client connected
  Server: client connected
  tokens:
            dear eagle falcon fox lion
```

When the token is **empty** & "QUIT" request:

Server

```
🛢 Assignment3-Xinyi Yun - assignment3/src/assignment3/client.java - Ec
File Edit Source Refactor Navigate Search Project Run Window F
🗗 🖺 Problems @ Javadoc 🚇 Declaration 📮 Console 🖾 🗐 History
🏮 server [Java Application] D:\jdk\bin\javaw.exe (2021年3月19日 下午6:1
  Server: waiting for a client to connect
  Server: client connected
  Server: client connected
  ERROR: the tokensList is empty
  Server: client connected
  Server: client connected
  Server: received message from client1 : SUBMIT bear'
  Add new token: bear
  Server: client connected
  Server: client connected
  connecting 1 clients
  Server: connection to client closed
```

When it has 2 clients & submitting more than 10 tokens:

client 2:

```
    Problems @ Javadoc □ Declaration □ Console □ □ History

client2 [Java Application] D:\jdk\bin\javaw.exe (2021年3月23日下午7:06:42)
Client 2 connected to server
SUBMIT aDOG
Client 2 : sent message to server
Client 2 : received message from server
                                            ok
SUBMIT WCAT
Client 2 : sent message to server
Client 2 : received message from server
                                            ok
SUBMIT eDOG
Client 2 : sent message to server
Client 2 : received message from server
SUBMIT aCAT
Client 2 : sent message to server
Client 2 : received message from server
                                            ok
SUBMIT sDOG
Client 2 : sent message to server
Client 2 : received message from server
                                            ok
SUBMIT FFISH
Client 2 : sent message to server
Client 2 : received message from server
                                            ok
Client 1:
```

```
client 1 connected to server
SUBMIT Dlion
client 1 : sent message to server
client 1 : received message from server
                                          ok
SUBMIT Geagle
client 1 : sent message to server
client 1 : received message from server
                                          ok
SUBMIT zLion
client 1 : sent message to server
client 1 : received message from server
                                          ok
SUBMIT xFox
client 1 : sent message to server
client 1 : received message from server
                                          ok
SUBMIT iLion
client 1 : sent message to server
client 1 : received message from server
                                          ERROR
RETRIEVE
```

They use the **same** tokenList:

iLion is the 11th, so it couldn't add into the tokenList

🖺 Problems 🍭 Javadoc 🚇 Declaration 📮 Console 🖾 🗐 History server [Java Application] D:\jdk\bin\javaw.exe (2021年3月23日下午7:06:18) Server: waiting for a client to connect Server: client connected Server: client connected Server: received message from client : SUBMIT qDOG' Add new token: qDOG Server: received message from client : SUBMIT wCAT' Add new token: wCAT Server: received message from client : SUBMIT eDOG' Add new token: eDOG Server: received message from client : SUBMIT aCAT' Add new token: aCAT Server: received message from client : SUBMIT sDOG' Add new token: sDOG Server: received message from client : SUBMIT fFISH' Add new token: fFISH Server: client connected Server: client connected Server: received message from client : SUBMIT Dlion' Add new token: Dlion Server: received message from client : SUBMIT Geagle' Add new token: Geagle Server: received message from client : SUBMIT zLion' Add new token: zLion Server: received message from client : SUBMIT xFox' Add new token: xFox ERROR : List is full ERROR : List is full Dlion Geagle aCAT eDOG fFISH qDOG sDOG wCAT xFox zLion tokens:

This is sorted uppercase(A-Z) to lowercase(a-z)