server

Class TCPServer

java.lang.Object
    server.TCPServer

```
public class TCPServer
extends java.lang.Object
```

Author:

Hector, Adonias, Henna, Gary, This class will contain the functionalities of the TCP Server. The server connection will be established through port 4279, and each new Socket connection to clients will be added to an arraylist of existing clients. The socket client interactions are carried out through the use of the ServerSocketThread nested-class. The Server is Stateful and concurrent through the use of shared memory variables, threads, and synchronized functions. Sockets with ended connections will remove themselves from the ArrayList of connections.

Nested Class Summary

Nested Classes

Modifier and Type	Class and Description
static class	**TCPServer.ServerSocketThread**

Constructor Summary

Constructors

Constructor and Description
TCPServer()

Method Summary

All Methods	Static Methods	Concrete Methods

Modifier and Type	Method and Description
static int	**getNextFib**()

	This function is used by the server socket threads to work with the Stateful information on the server.
static void	**main**(java.lang.String[] argv) In this function the server is established and set in a loop listening for and accepting new client connections.
static int	**nextLargetRand**() This function will be utilized to return the next largest random number Relevant to the current largest random number.
static int	**nextPrimeNumb**() This function is used to generate and return the next Prime number relative to the current prime number.

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

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Constructor Detail

TCPServer

public TCPServer()

Method Detail

main

```
public static void main(java.lang.String[] argv)
                 throws java.lang.Exception
```

In this function the server is established and set in a loop listening for and accepting new client connections. Everytime a new client connection is established, a ServerSocketThread object is created storing the connection details between the server and the client. These objects stored in the socketList ArrayList will utilize the functions of the outer class to manipulate and work with the private Stateful data members of the server.

Parameters:

argv -

Throws:

java.lang.Exception

getNextFib

```
public static int getNextFib()
```

This function is used by the server socket threads to work with the Stateful information on the server. This function is synchronized to prevent threads from ruining data and preserve correct concurrency. The next fib number is generated relative to the current fib number stored on server.

Returns:

```
- the next fib number
```

nextLargestRand

```
public static int nextLargestRand()
```

This function will be utilized to return the next largest random number Relevant to the current largest random number. The function is synchronized to preserve data correctness.

Returns:

```
- return next largest random number
```

nextPrimeNumb

```
public static int nextPrimeNumb()
```

This function is used to generate and return the next Prime number relative to the current prime number. The function is synchronized to Preserve data correctness.

Returns:

```
- the next prime number
```

OVERVIEW   PACKAGE   CLASS   USE   TREE   DEPRECATED   INDEX   HELP

PREV CLASS   **NEXT CLASS**   FRAMES   NO FRAMES   ALL CLASSES

SUMMARY: NESTED | FIELD | CONSTR | METHOD   DETAIL: FIELD | CONSTR | METHOD