

# Programmation Socket TCP

TP5

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## Exercice 1

Cf exercice 3 tp4

## Exercice 2

```
sudo apt update
sudo apt install openjdk-11-jdk-headless
```

Puis créer les fichiers suivants :

```
# ClientHandlerThread.java

import java.net.ServerSocket;
import java.net.Socket;
import java.util.ArrayList;
import java.util.List;

public class ClientHandlerThread extends Thread {
    private List<Socket> sockets;
    private ServerSocket socketServeur;

    public ClientHandlerThread(ServerSocket socketServeur) {
        super();
        this.sockets = new ArrayList<Socket>();
        this.socketServeur = socketServeur;
    }

    public void run() {
        try {
            while (true) {
                Socket socketClient = socketServeur.accept();
                System.out.println("Connexion avec : "
                    +socketClient.getInetAddress());
                sockets.add(socketClient);
            }
        } catch (Exception e) {
            e.printStackTrace();
        }
    }

    public List<Socket> getSockets() {
        return sockets;
    }
}
```

```

    public void setSockets(List<Socket> sockets) {
        this.sockets = sockets;
    }

    public ServerSocket getSocketServeur() {
        return socketServeur;
    }

    public void setSocketServeur(ServerSocket socketServeur) {
        this.socketServeur = socketServeur;
    }
}

```

# ServerTp5.java

```

import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.io.PrintStream;
import java.net.ServerSocket;
import java.net.Socket;

public class ServerTp5 {

    final static int port = 9632;

    public static void main(String[] args) {
        try {
            ServerSocket socketServeur = new ServerSocket(port);
            System.out.println("Lancement du serveur");
            ClientHandlerThread clientHandler = new
ClientHandlerThread(socketServeur);

            while (true) {
                for(Socket s : clientHandler.getSockets()) {
                    String message = "";
                    // InputStream in =
socketClient.getInputStream();
                    // OutputStream out =
socketClient.getOutputStream();

                    BufferedReader in = new BufferedReader(new
InputStreamReader(s.getInputStream()));
                    message = in.readLine();
                    System.out.println(message);
                    if ("fin".equals(message)) {
                        s.close();
                        clientHandler.getSockets().remove(s);

```

```

                                for(Socket skt :
clientHandler.getSockets()) {
                                PrintStream out = new
PrintStream(skt.getOutputStream());
                                out.println("Un utilisateur
s'est déconnecté.");
                                }
                                } else {
                                for(Socket skt :
clientHandler.getSockets()) {
                                if(!s.equals(skt)) {
                                    PrintStream out = new
PrintStream(skt.getOutputStream());
                                    out.println(message);
                                }
                                }
                                }
                                }
                                }
                                } catch (Exception e) {
                                e.printStackTrace();
                                }
                                }
}

```

Compilation et lancement

```

javac ClientHandlerThread.java
javac ServerTp5.java
java ServerTp5

```

Connexion des clients

```

telnet 127.0.0.1 9632

```