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Distributed Systems Lab

Lab – 7

Aim: Implement RPC mechanism for a file transfer across a network.

Program:

Client.java

```java
import java.io.*;

import java.net.*;

class client{

    public static void main(String args[]){

        try{

            Socket sock=new Socket (args[0],8081);

            FileInputStream is=new FileInputStream("client.class");

            OutputStream os=sock.getOutputStream();

            int ch=0;

            ch=is.read();

            do{

                os.write(ch);

                ch=is.read();

            }while(ch!=-1);

            os.flush();

            os.close();

            sock.close();
```

```java
        }

        catch(Exception e){

            System.out.println(e);

        }

    }

}
```

Server.Java

```java
import java.io.*;

import java.net.*;

class server {

    public static void main(String args[]){

        new server().go();

    }

    public void go(){

        while(true){

            try{

                ServerSocket server=new ServerSocket(8081);

                Socket socket=server.accept();

                new Thread(new thread(socket)).start();

            }

            catch(Exception e){}

        }

    }

    class thread implements Runnable{
```

```java
        Socket s;

        thread(Socket s){

            this.s=s;

        }

        public void run(){

            try{

                InputStream is=s.getInputStream();

                FileOutputStream out = new FileOutputStream(new
File("clientcopy.class"));

                int ch=0;

                ch=is.read();

                do{

                    out.write(ch);

                    ch=is.read();

                }while(ch!=-1);

                out.flush();

                System.out.println("File (client.class) Copied to server as
(clientcopy.class)");

                out.close();

                s.close();

            }

            catch(Exception e){

            System.out.println(e);

            }

        }
```

```
}}
```