**CREATION OF SOCKETS FOR HTTP WEB PAGE UPLOAD & DOWNLOAD**

**SOURCE CODE:**

**Client:**

import javax.swing.\*;

import java.net.\*;

import java.awt.image.\*;

import javax.imageio.\*;

import java.io.\*;

import java.awt.image.BufferedImage;

import java.io.ByteArrayOutputStream;

import java.io.File;

import java.io.IOException;

import javax.imageio.ImageIO;

public class Client{

public static void main(String args[]) throws Exception{

Socket soc;

BufferedImage img = null;

soc=new Socket("localhost",4000);

System.out.println("Client is running. ");

try {

System.out.println("Reading image from disk. ");

img = ImageIO.read(new File("digital\_image\_processing.jpg"));

ByteArrayOutputStream baos = new ByteArrayOutputStream();

ImageIO.write(img, "jpg", baos);

baos.flush();

byte[] bytes = baos.toByteArray();

baos.close();

System.out.println("Sending image to server. ");

OutputStream out = soc.getOutputStream();

DataOutputStream dos = new DataOutputStream(out);

dos.writeInt(bytes.length);

dos.write(bytes, 0, bytes.length);

System.out.println("Image sent to server. ");

dos.close();

out.close();

}catch (Exception e) {

System.out.println("Exception: " + e.getMessage());

soc.close();

}

soc.close();

}

}

**Server:**

import java.net.\*;

import java.io.\*;

import java.awt.image.\*;

import javax.imageio.\*;

import javax.swing.\*;

class Server {

public static void main(String args[]) throws Exception{

ServerSocket server=null;

Socket socket;

server = new ServerSocket(4000);

System.out.println("Server Waiting for image");

socket = server.accept();

System.out.println("Client connected.");

InputStream in = socket.getInputStream();

DataInputStream dis = new DataInputStream(in);

int len = dis.readInt();

System.out.println("Image Size: " + len/1024 + "KB");

byte[] data = new byte[len];

dis.readFully(data);

dis.close();

in.close();

InputStream ian = new ByteArrayInputStream(data);

BufferedImage bImage = ImageIO.read(ian);

JFrame f = new JFrame("Server");

ImageIcon icon = new ImageIcon(bImage);

JLabel l = new JLabel();

l.setIcon(icon);

f.add(l);

f.pack();

f.setVisible(true);

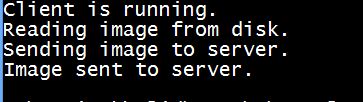
}

}

**INPUT & OUTPUT**

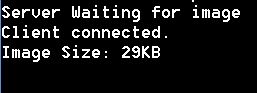
**CLIENT SIDE OUTPUT:**

When you execute the client code, the following output appears on client side:



**SERVER SIDE OUTPUT:**

When you execute the server code, the following outputappears on server side:



After receiving the image, the server displays the image as shown below:

