Name : Ankita Sanjay Kakade  
Class: AI-B

Roll No.:19

Subject: Computer Network

**Assignment No.11**

**Problem statement:** Write a program using UDP Sockets to enable file transfer (Script, Text, Audio and Video one file each) between two machines.

**Code:**

Client Side

import java.io.\*;

import java.net.\*;

public class Client {

    private static final String SERVER\_IP = "127.0.0.1";

    private static final int SERVER\_PORT = 5500;

    private static final int PACKET\_SIZE = 1024;

    public static void main(String[] args) {

        try {

            DatagramSocket socket = new DatagramSocket();

            // Send text file

            sendFile(socket, "Script.txt");

            // Send audio file

            sendFile(socket, "audio\_cn.mp3");

            // Send video file

            sendFile(socket, "Video\_cn.mp4");

            socket.close();

        } catch (IOException e) {

            e.printStackTrace();

        }

    }

    private static void sendFile(DatagramSocket socket, String fileName) throws IOException {

        File file = new File(fileName);

        FileInputStream fileInputStream = new FileInputStream(file);

        byte[] buffer = new byte[PACKET\_SIZE];

        int bytesRead;

        while ((bytesRead = fileInputStream.read(buffer)) != -1) {

            DatagramPacket packet = new DatagramPacket(buffer, bytesRead, InetAddress.getByName(SERVER\_IP), SERVER\_PORT);

            socket.send(packet);

        }

        System.out.println("File " + fileName + " sent successfully.");

        fileInputStream.close();

    }

}

Server Side:

import java.io.FileOutputStream;

import java.io.IOException;

import java.net.\*;

public class Server {

    private static final int PORT = 5500;

    private static final int BUFFER\_SIZE = 1024000000;

    public static void main(String[] args) {

        try {

            DatagramSocket socket = new DatagramSocket(PORT);

            byte[] buffer = new byte[BUFFER\_SIZE];

            while (true) {

                DatagramPacket packet = new DatagramPacket(buffer, buffer.length);

                socket.receive(packet);

                // Save received data to a file

                String fileName = "received\_" + System.currentTimeMillis() + ".dat";

                FileOutputStream fileOutputStream = new FileOutputStream(fileName);

                fileOutputStream.write(packet.getData(), 0, packet.getLength());

                fileOutputStream.close();

                System.out.println("File received and saved as: " + fileName);

            }

        } catch (IOException e) {

            e.printStackTrace();

        }

    }

}

**Output:**

