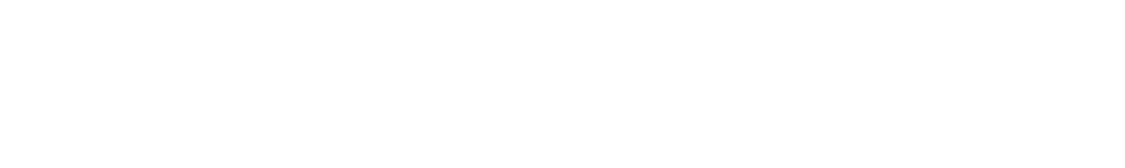
|  |  |  |  |
| --- | --- | --- | --- |
| **Class: FYMCA Div: A Semester: II** | **Course Code: MCA01554**  **Course Name: Java Programming Laboratory** | | **Batch: F1** |
| **Name: Abhijeet Joshi** | | **Roll No: 51023** | |
| **CO No: CO515.3** | | **Assignment No:** 8 | |

**PRACTICAL SUBMISSION RECORD- A.Y. 2024-25**



Progressive Education Society’s

**MODERN COLLEGE OF ENGINEERING, Pune -05.**

(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

**MCA Department**

**Title**: Write a program to establish connection between client and server use datagram packet & socket.

# Code:

1. UDP Server Program (UDPServer.java) import java.net.DatagramPacket;

import java.net.DatagramSocket;

public class UDPServer {

public static void main(String[] args) { try {

DatagramSocket serverSocket = new DatagramSocket(9876); byte[] receiveData = new byte[1024];

System.out.println("Server is running and waiting for client message...");

// Receive data

DatagramPacket receivePacket = new DatagramPacket(receiveData, receiveData.length); serverSocket.receive(receivePacket);

String clientMessage = new String(receivePacket.getData(), 0, receivePacket.getLength()); System.out.println("Client says: " + clientMessage);

// Respond to client

String serverResponse = "Hello from server!"; byte[] sendData = serverResponse.getBytes();

DatagramPacket sendPacket = new DatagramPacket(sendData, sendData.length, receivePacket.getAddress(), receivePacket.getPort());

serverSocket.send(sendPacket); serverSocket.close();

} catch (Exception e) { e.printStackTrace();

}

}

}

1. UDP Client Program (UDPClient.java) import java.net.DatagramPacket;

import java.net.DatagramSocket; import java.net.InetAddress; import java.util.Scanner;

public class UDPClient {

public static void main(String[] args) { try {

DatagramSocket clientSocket = new DatagramSocket(); InetAddress IPAddress = InetAddress.getByName("localhost");

Scanner sc = new Scanner(System.in); System.out.print("Enter a message for the server: "); String message = sc.nextLine();

byte[] sendData = message.getBytes(); byte[] receiveData = new byte[1024];

9876);

// Send data to server

DatagramPacket sendPacket = new DatagramPacket(sendData, sendData.length, IPAddress, clientSocket.send(sendPacket);

// Receive response from server

DatagramPacket receivePacket = new DatagramPacket(receiveData, receiveData.length); clientSocket.receive(receivePacket);

String serverReply = new String(receivePacket.getData(), 0, receivePacket.getLength()); System.out.println("Server replied: " + serverReply);

clientSocket.close(); sc.close();

} catch (Exception e) { e.printStackTrace();

}

}

}

# Output:

