import java.io.\*;

import <java.net>.\*;

import java.util.\*;

public class StopAndWaitServer {

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

DatagramSocket serverSocket = new DatagramSocket(9876);

byte[] receiveData = new byte[1024];

byte[] sendData;

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

while (true) {

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

serverSocket.receive(receivePacket);

String sentence = new String(receivePacket.getData(), 0, receivePacket.getLength());

InetAddress clientIP = receivePacket.getAddress();

int clientPort = receivePacket.getPort();

System.out.println("Received Frame: " + sentence);

if (new Random().nextInt(5) == 0) {

sendData = "NAK".getBytes();

System.out.println("Sending NAK for: " + sentence);

} else {

sendData = "ACK".getBytes();

System.out.println("Sending ACK for: " + sentence);

}

DatagramPacket sendPacket = new DatagramPacket(sendData, sendData.length, clientIP,

clientPort);

serverSocket.send(sendPacket);

}

}

}