

Assingment-4
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Solution 1:

```
import java.io.*;
import java.net.*;
import java.util.*;

public class SocketServerThread extends Thread {

    protected MulticastSocket socket = null;
    protected BufferedReader in = null;
    protected boolean moreQuotes = true;

    public SocketServerThread() throws IOException {
        this("SocketServer");
    }

    public SocketServerThread(String name) throws IOException {
        super(name);
        socket = new MulticastSocket(4445);
        socket.setReuseAddress(true);
        try {
            // in = new BufferedReader(new FileReader("one-liners.txt"));
            in = new BufferedReader(new FileReader("one-liners.txt"));
            System.out.println("in::" + in.readLine());

        } catch (FileNotFoundException e) {
            System.err.println("Could not open quote file. Serving time instead." + e);
        }
    }

    @Override
    public void run() {
        while (moreQuotes) {
            try {
                byte[] buf = new byte[256];
                // receive request
                DatagramPacket packet = new DatagramPacket(buf, buf.length);
                socket.receive(packet);
            }
        }
    }
}
```

```

        // figure out response
        String dString;
        if (in == null)
            dString = new Date().toString();
        else
            dString = getNextQuote();

        buf = dString.getBytes();

        // send the response to the client at "address" and "port"
        InetAddress address = packet.getAddress();
        int port = packet.getPort();
        packet = new DatagramPacket(buf, buf.length, address, port);
        socket.send(packet);
    } catch (IOException e) {
        System.out.println("IO Exception Occured::" + e);
        moreQuotes = false;
    }
}
socket.close();
}

protected String getNextQuote() {
    String returnValue = null;
    try {
        if ((returnValue = in.readLine()) == null) {
            in.close();
            moreQuotes = false;
            returnValue = "No more quotes. Goodbye.";
        }
    } catch (IOException e) {
        returnValue = "IOException occurred in server.";
    }
    return returnValue;
}
}

```

Solution: 2

```
import java.io.*;
```

```

import java.net.*;

/

public class SocketClient {

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

        NetAddress address;

        DataPacket packet;

                                                                    // get a data socket

        MCSocket socket = new MCSocket();

                                                                    // send request

        byte[] buffer = new byte[256];

        address = NetAddress.getByName("localhost");

        packet = new DataPacket(buffer, buffer.length, address, 4445);

        socket.send(packet);

                                                                    // get response

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

        socket.receive(packet);

                                                                    // display response

        String received = new String(packet.getData(), 0, packet.getLength());

        System.out.println("Token of the Moment: \n" + received);

        socket.close();

    }

}

```