

Assignment 1A

Name : Omkar Deshpande

Roll No: 43212

Problem statement - To develop any distributed application through implementing client-server communication programs based on java sockets.

WRITEUP

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[Roll no 43212]

Title :- Distributed application using Java sockets and RMI.

Problem statement: To develop any distributed application through implementing client-server communication programs based on Java sockets.

Objective: By the end of the assignment we will be able to use Java sockets and RMI.

Theory:-

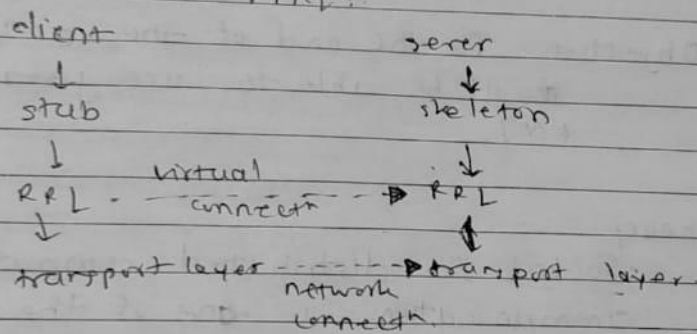
- Socket: In distributed computing network communication is one of the essential parts of any system and the socket is the endpoint of every instance of network communication.
- RMI:- The Remote Method Invocation is an API that provides a mechanism to create distributed applications in Java.
The RMI allows an object to invoke method of an object running in another JVM.
- Java API:- Java provides the reliable ^{stream} server based communication for TCP as well as UDP.
- Java i/o streams allow application programs i/o various data such as bytes, strings, etc.
- TCP:- Transmission Control Protocol, which allows reliable communication between two applications.

• UDP:- User datagram Protocol is a connection less protocol that allows the packet of data to be transmitted betn applications.

• Types of sockets:

- stream sockets
- datagram sockets
- Raw sockets.

* Architecture of RMI:



* Java API

Java program,

Interpreter
Java API
JVM

} Java program

Application h/w

Conclusion:- In this way, I have developed a distributed application through implementing client server application using Java.