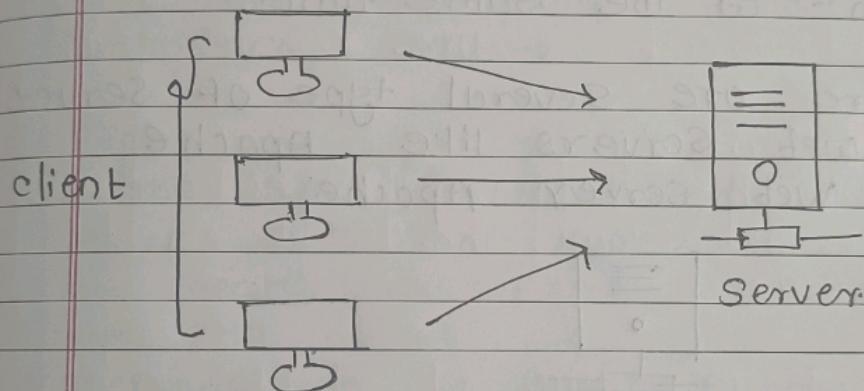


Assignment - 2.

Q.1) Explain client & Server model.

→ ① The web is service that allow computers to share and exchange data, such as : Emailing, online gaming, FTP.

② The web is referred to as client-server communication.



③ client → client can be machine or a program.

forex → Laptop, desktop, mobile.

- A client program is a program that allows the user to make requests.

- A client, whether it is a machine or a program, is an appliance and a way to make requests through the web.

④ Server -

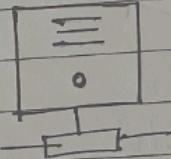
- we can run multiple servers on one single machine.

- A server is a computer program NOT A Device.

- high performance computers program
NOT A device are called Servers.
because they run server programs.
- Server provide functionality & serve other program called client.
- A single server can serve multiple client at the same time.

There are several type of servers.

- ① web servers like Apache
Web server Apache



Server HTTP requests.

- ② Database Servers :



Run DBMS.

- A server can contain web resources host web applications, stores user & program data etc

- it is used to serve hundreds or thousand of client.
- A server is always listening for requests and as soon as it receives one responds with a message.
- A client - server model is just one way for the computers to communicate with the web.
- A client - server model is based on a centralized structure.

Q.2] Explain Java RMI -

→ ① The RMI (Remote Method Invocation) is an API that provides a mechanism to create distributed application in Java. The RMI allows an object to invoke methods on an object running in another JVM.

② RMI use stub & skeleton object for communication with remote obj

Stub - The stub is an object acts as a gateway for the client side. All the outgoing request

* working of RMI.

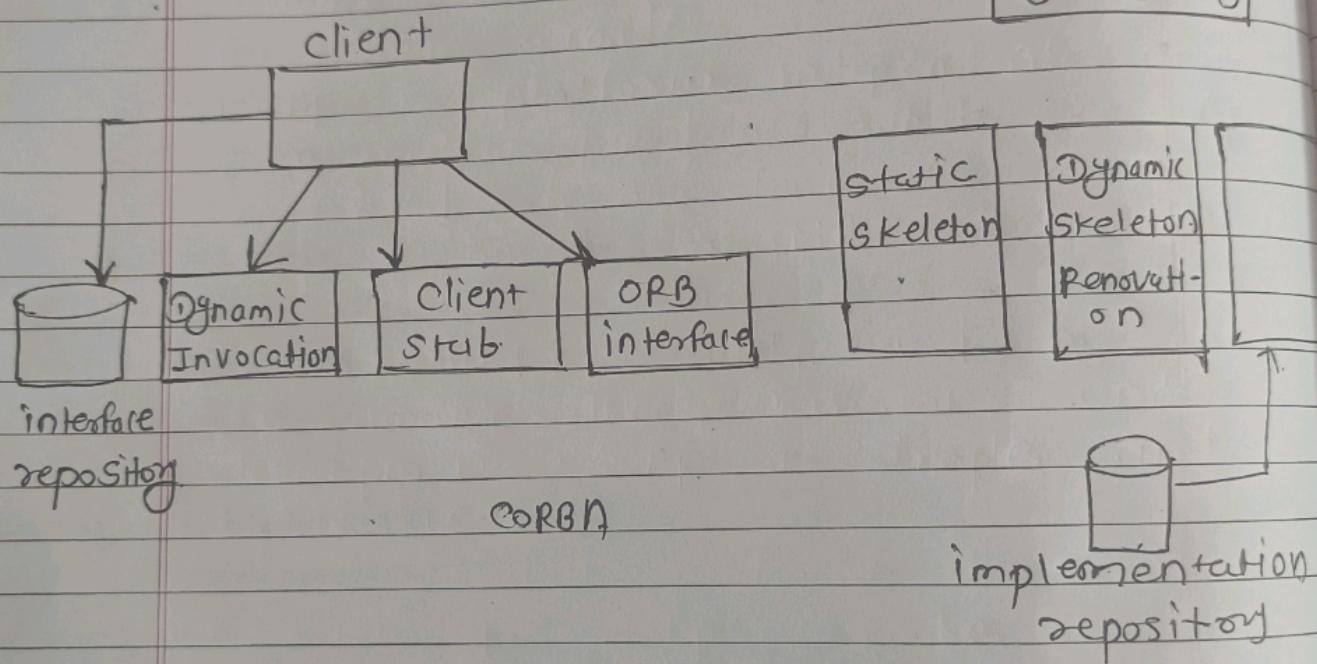
i) Stub object (client side)

ii) Skeleton object (server side)

- Stub object :- The stub object on the client machine build an information and sends this information to the Server.
 - The block consist of:
 - a) an identifier of the remote object to be used.
 - b) Method name which is to be invoked
 - c) parameter to the remote JVM.
 - Skeleton object : The skeleton object passed the request from the stub object to follows:
 - 3] what is role of J2EE in Distributed computing?

Q.4. Explain CORBA Architecture?
 → A collection of System Level Service.
 For handling low level application.
 Service like life of two System
 client and object implementation.

Obj : implementation
 ○ ○ ○



Working flow of CORBA.

- ① ORB Core.
- ① it carries out the request Reply protocol betⁿ client and server.
- ② it provide operations that enable process to be started and stopped.
- ③ it provides operations to convert betⁿ remote obj reference and string

Object Adapter (server)

① Bridges the gap betn CORBA object and the programming language interfaces of the slave classes.

② Skeleton (server)

- An IDL Compiler generates skeleton classes in the Server's language.

- Dispatches PMT's to the appropriate servant class

③ Stub -

- generated by an IDL compiler in the client language.

- proxy class is created for object oriented language

- stub procedure are created for procedural language.

④

Assignment 3

Date _____

Page _____

Q. what are the features of SOAP?

→ ① SOAP is a communication protocol and it is used for communication betn applications

② SOAP is a format for sending message

③ SOAP communication through internet

④ Independence - SOAP allows for any programming model

- SOAP is platform independent and language independent that is SOAP can be used in any language.

- SOAP is based on XML.

⑤ Extensibility - Security and WS-routing are among the extensions under development. SOAP is simple and extensible.

⑥ Neutrality - SOAP can be used over any transport protocol such as HTTP, SMTP, TCP or JMS

⑦ SOAP is a light weight protocol. SOAP protocol process only two fundamental properties. They are:

① Send and receive HTTP transport protocol packets.

② process XML message, this can be contrasted with the heavy weight protocols such as ORPC protocols

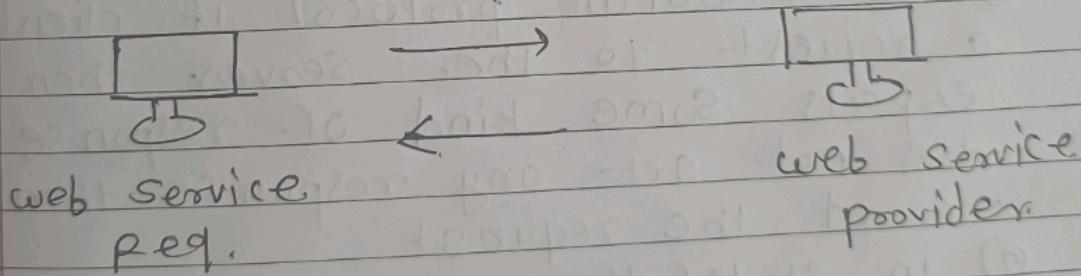
Q → what are RPC?

- it is defined a request/response-based synchronous communication when the client send a request, the client wait until a response is sent back from the server before continuing any operation.

- The RPC-based web service are tightly coupled & are implemented with remote objects of the client appn

- The fig. represent the Rpc-based commⁿ model in web service.

- The client have a capability to provide parameters in method call to the web service.



Q. what is stateless & statefull services? explain with example
→ stateless →

- ① stateless service are the type of network protocols in which client send a request to the server and server response back according to current state.
- ② In stateless service there is no transient dependency b/w server and client.
- ③ The stateless protocol design simplifies the server design.
- ④ it handles transaction very fast.
e.g. DNS, HTTP, UDP

statefull

- ① In statefull protocol if client send a request to the server then it expects some kind of response, if it does not get any response then it resend the request.
- ② in statefull services there is transient dependency b/w server and client.

Q what is service oriented architecture?
explain characteristics

→ The SOA essentially a collection of services these services communicate with each other.

The SOA following key characteristics.

① SOA services have self describing interfaces in platform independent WSDL is the standard used to describe the services

② SOA services communicate with message formally defined via XML Schema (also called XSD).

③ Number of appln can look up the services UDDI is the standard used for service registry

