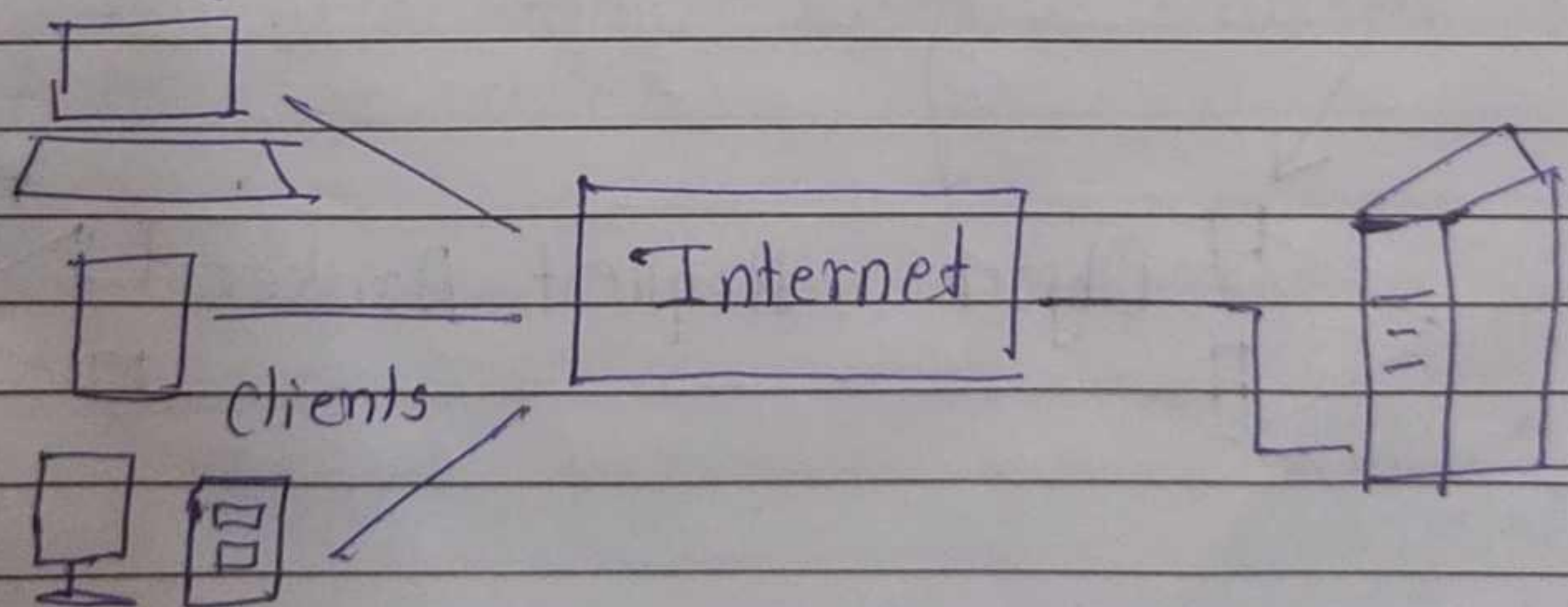


Assignment - 2

Q1] Explain the client-server Architecture:-

→ This is the early age technology which separates the roles of computer as client and server. This technology is still powerful and popular amongst the network technology to establish communication between two or more machines.

- 1] The early stage of this technology used two or tier business applications.
- 2] In this model the first (upper) tier handles the presentation and business logic of the user application (client) and the second / lower tier handle the application organization and its data storage (server).
- 3] In ~~general~~ general the server is a database server that is mainly responsible for the organization and responsible for organization and retrieval of data. The application client handles the user interaction through variety of graphical user interface of the application.
- 4] For example the client-server model has been widely used in Enterprise Resource Planning (ERP) billing, and Inventory application, system, banking etc.

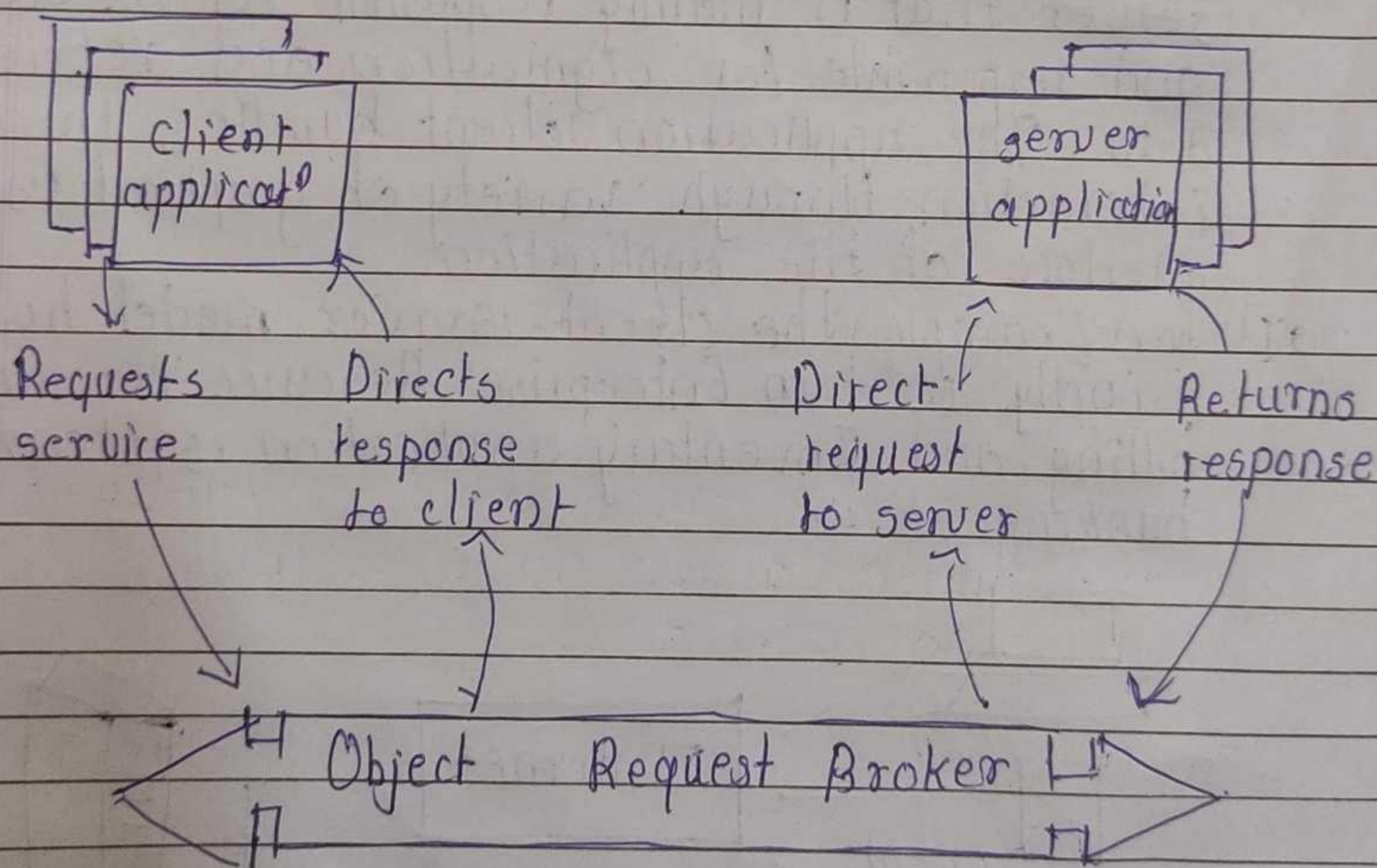


IDL provides a mechanism by which the distributed application components interface inherited classes, events, attributes, and exception can be specified.

b] ORB : It acts as the object bus or the bridge providing communication infrastructure to send and receive request / responses from the client and server. It application objects achieving interoperability in a heterogeneous environment.

Advantage of CORBA :-

- 1] OS and programming-language independence
- 2] Legacy and custom application integration.
- 4] Rich distributed object information.
- 5] Location transparency.



Q4 Explain Microsoft Dcom.

→ It is remote protocol designed by Microsoft to invoke RPCs. It consists of a set of extensions layered on the Microsoft remote procedure call extensions.

Higher-level application protocol
Dcom
RPC

Dcom protocol stack :- Higher-level application use the Dcom client to obtain object or make ORPC call on the object. The Dcom client procedure call Protocol Extensions to interact with object server.

- ii] The object server constitutes an object ~~server~~ server and one or more object exporters. Object are contained in object exporters.
- iii] Dcom is language and platform independent components dynamically, without recompilts on platform and language neutral principle.
- vi] However Dcom do not have any absolute way of addressing an object instance - everything done through object interface.

Marshalling :- Marshalling helps to pass data from one com object instance to another on a different computer.

The step in Dcom communication:-

- i] The client computer request are remote computer to create an object by its CLSID or PROGID.
- ii] The remote machine checks the APPID and verified if the client has permission to create the object.
- iii] DcomLaunch.exe (if an exe) or DLLHOST.exe (if a dll) will create an instance of the classes client computer request.
- iv] The communication gets established.
- v] The client can now access all function in the class on the remote computer.