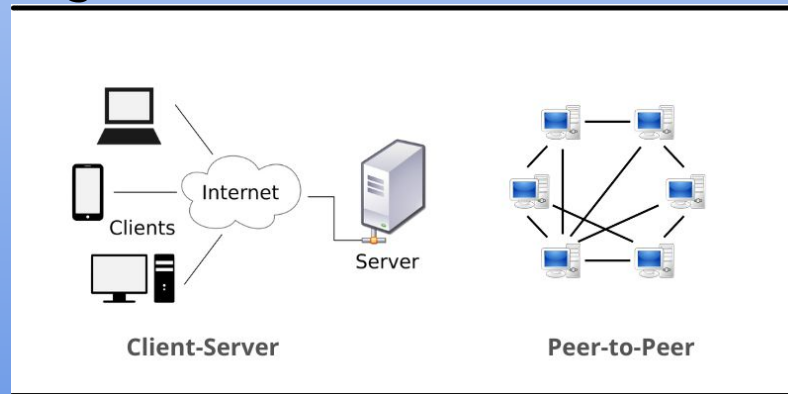


Discovery

- 1) We are using a peer-to-peer architecture.
- 2) According to Python we are establishing connections between client and the tracker server and UDP hole punching between clients.
- 3) We have been able to register the two clients with the tracker server and have them exchanged.



Support request, response, relative status response and content types

- Tracker Server Messages
 1. Tells you when the server is starting
 2. Tells you which IP address server is listening on.
 3. Tells you when there is a new connection and gives it a IP address and port number of new connections
 4. Gives you the number of active connections.
 5. The Client terminal says [PEER CONNECTED] when they are connected.

```
[STARTING] tracker server is starting...  
[LISTENING] Server is listening on 192.168.0.105  
[NEW CONNECTION] ('192.168.0.105', 51562) connected.  
[ACTIVE CONNECTIONS] 1  
[NEW CONNECTION] ('192.168.0.105', 51567) connected.
```



Explain Libraries used /third party code

The Libraries that we have used are as follows:

1. Import Socket : To use a socket object in our program we import the socket library. We build socket objects and then create the socket. We can open and close connections through this.
2. Import Threading : This is a library to run multiple threads at the same time.



Low level implementation/Bonus

We have used a Client Server Architecture as well as peer-to-peer Architecture which gets more advantage to the project.

It has a lot of advantages such as:

Both of them connect networks so that files can be shared..

In Client Server system the main focus is to share information whereas for peer to peer the main focus is to create connectivity between the clients. As we use both of these architectures both of them are fulfilled and gets an advantage to the project.



Additional Functionalities

- Used Socket Programming for doing the project
- Used the Client Server Architecture and also the peer to peer architecture.
- Used different libraries such as the import socket and the import threading library
- Implementation of the project was done with a small bug in it.