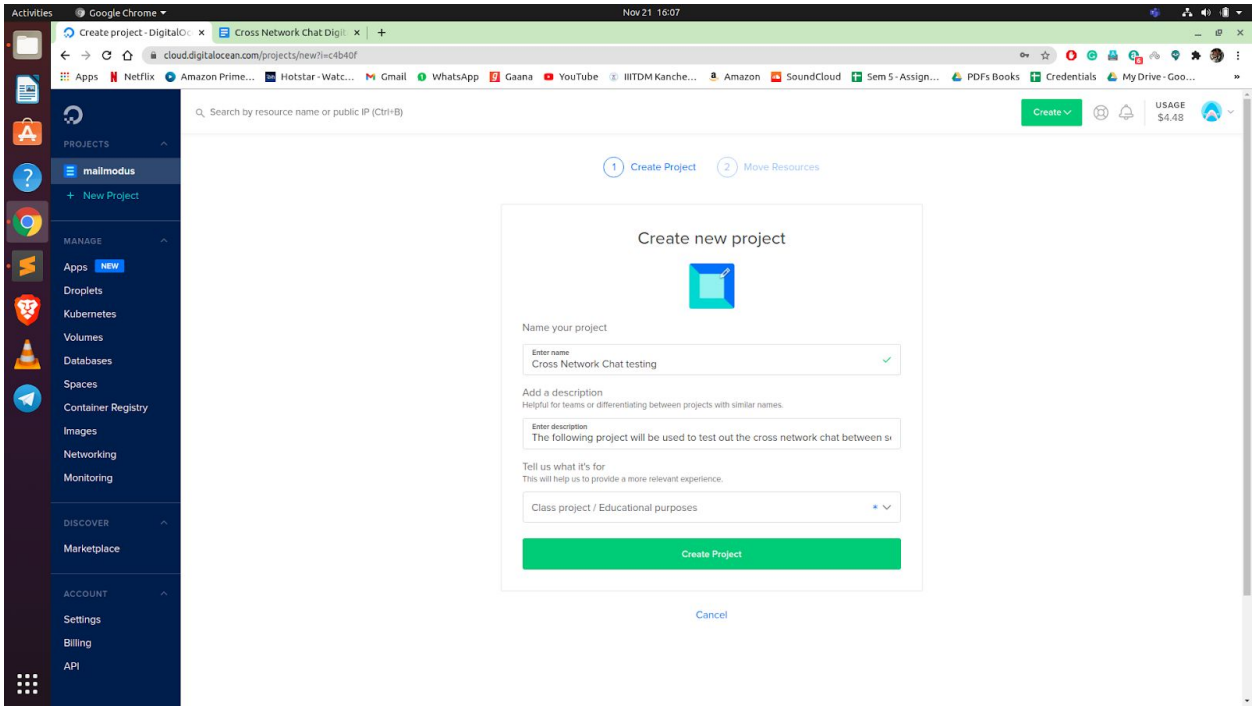
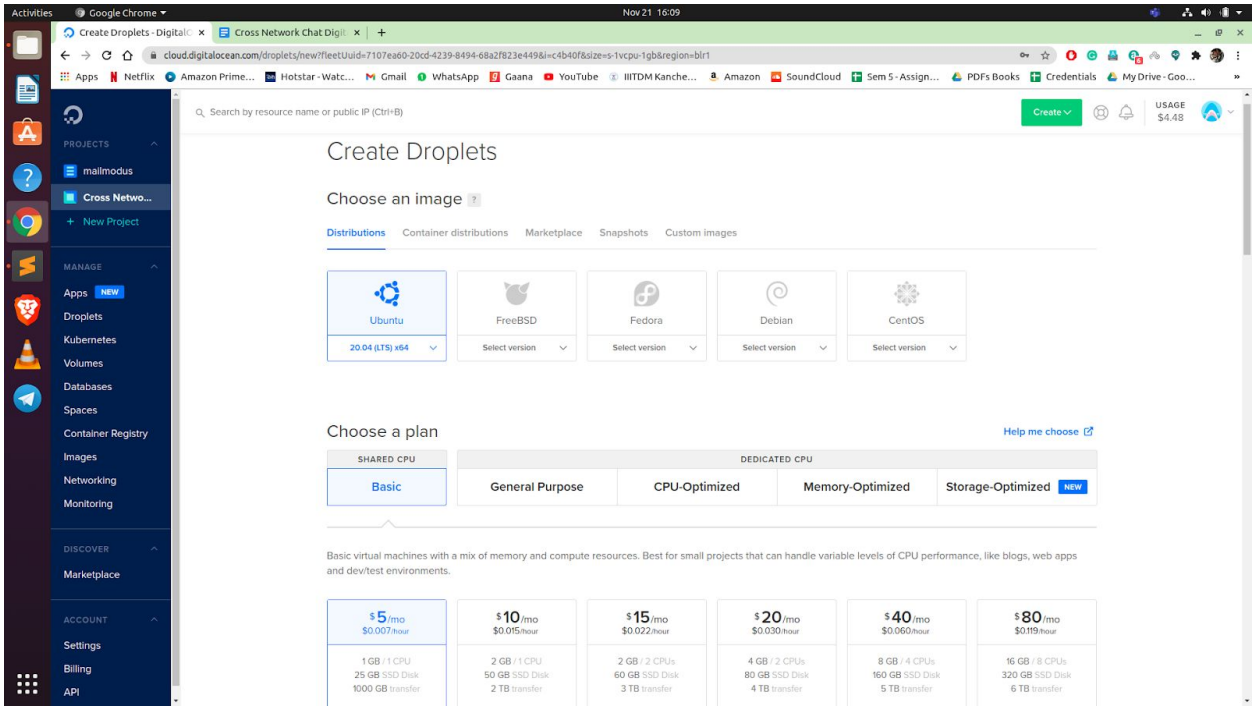
Cross Network Chat DigitalOcean

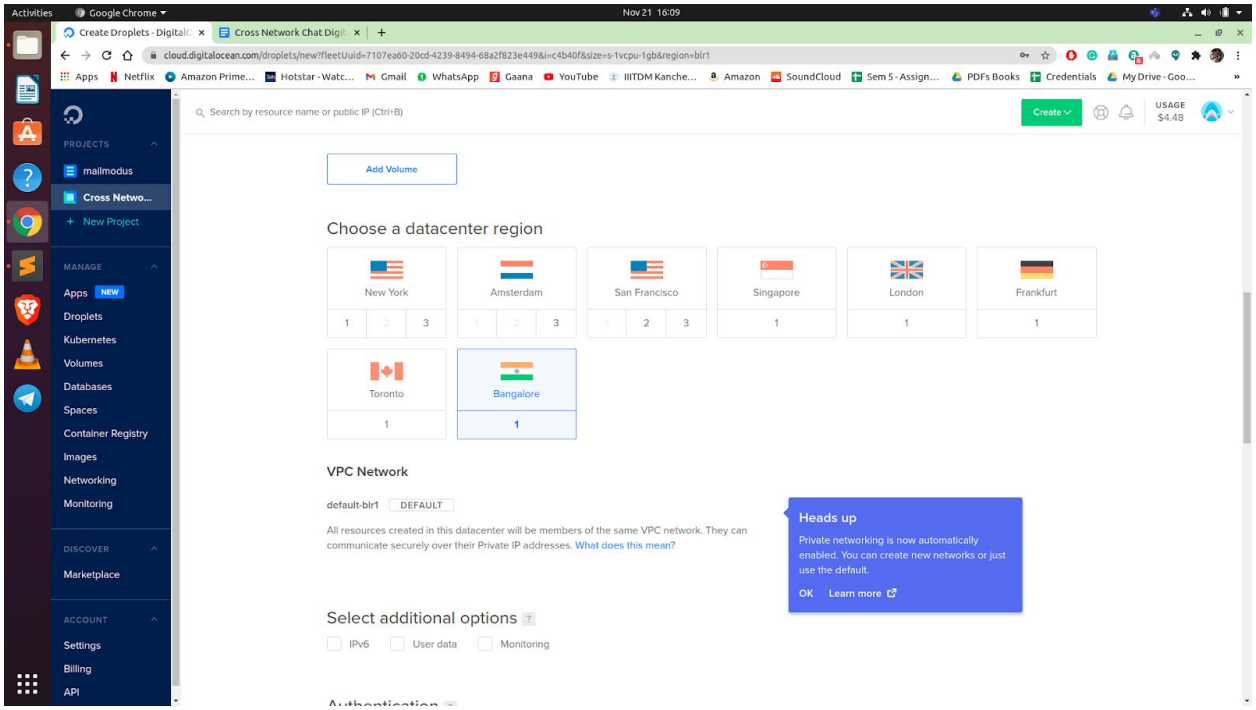
To perform a cross network chat over different networks there are numerous ways that one can do it. One of the best and easiest ways to do it is to set up a server in the public domain that can be used to connect by the clients. This can help us in preventing our laptop from getting attacked when we host our laptop/notebook into the public domain.

1. Create an account to use the DigitalOcean cloud services.
2. Login to the account and create a new project. For our name sake we are going to name it as cross network chat testing.

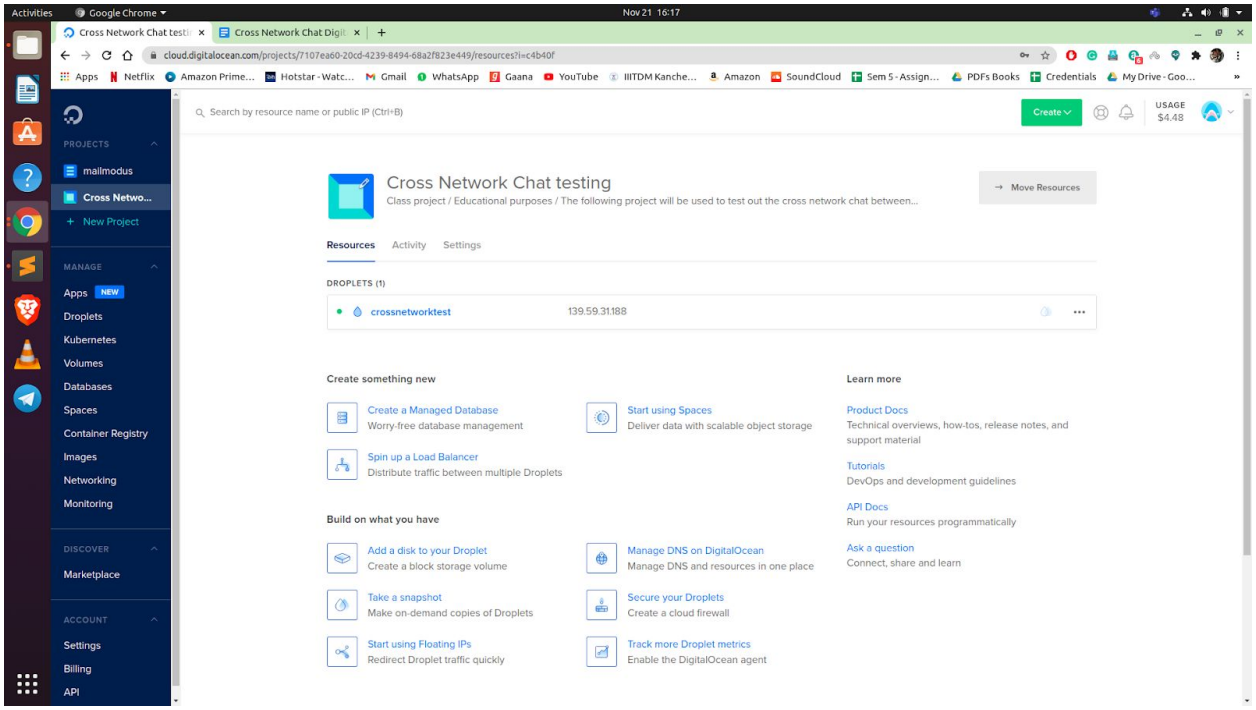


3. Once the project has been created we can create a server or in digital ocean's terminology we can call it a droplet.
4. When creating a droplet you will be asked multiple questions such as what type of OS, preferred location to host, SSH keys, password and more. Specify these and create a new droplet/server.





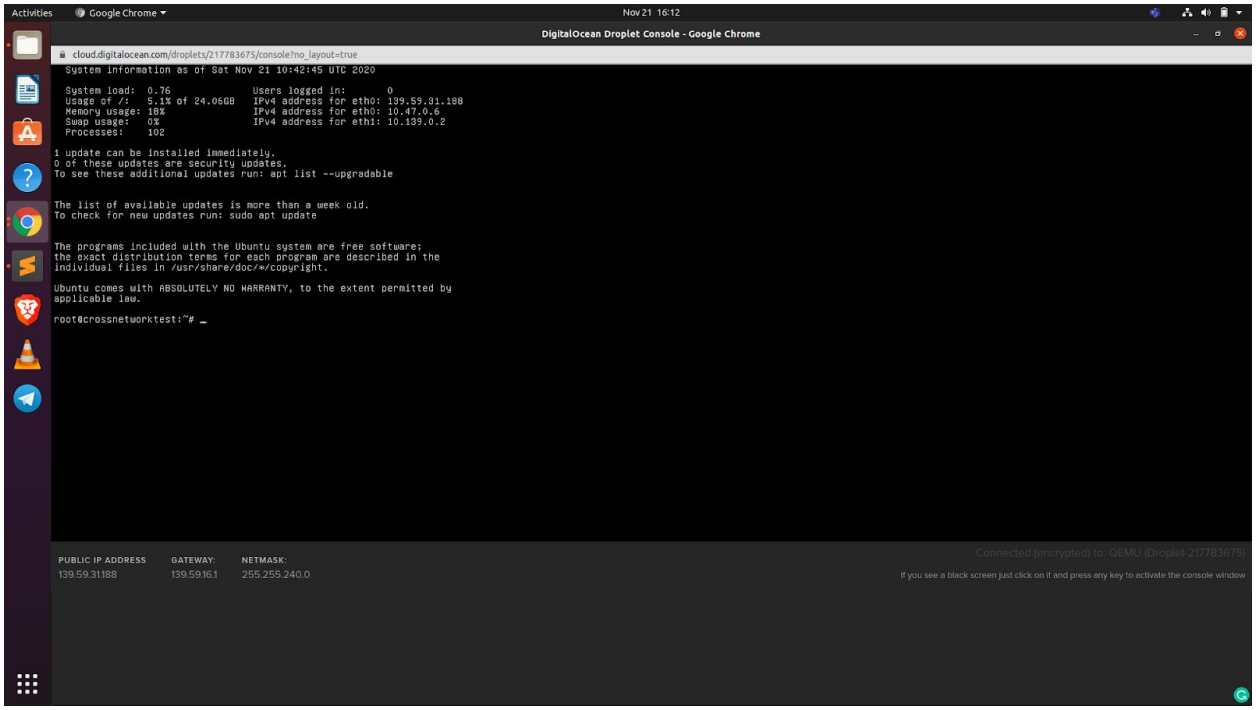
5. This takes a few minutes while our server is being created. Once it is created we can know the public IP Address, gateway and the subnet mask for this server we have created. This public IP Address is going to be used by the client to connect to the server and communicate.



6. Click on the access console option to access the console for this new server where we are going to create and run our server file.

7. A new window opens that asks you to enter the login details. Since we specified the user to be root and the password we can login into our server.

8. Once we gain access to the console of the server we can install the required dependencies such as gcc and more that we are going to use to create a server file.



9. Since we have already created a server file in the previous assignments we can use the same file. There are two methods to do this either type out the entire code onto the server or make a git pull from github or gitlab.
10. That’s it. Just compile and run our server file. In the client's file change the ip address to the public ip address of the server which we got while creating this new droplet. The connection has been established and the server and client can now communicate over two different networks.

P.S. : The screenshots of the connections/communication have been attached in the output folder.