

Assignment 1: Setting up a Private, Self-hosted Cloud

Due Date: April 13, 2021

Marks = 30

Class: MS-CNS

Set up a private self-hosted cloud using NextCloud solution.

1. It is an individual assignment which means that every student should have his/her cloud. However, you can work in groups to learn from others how they set it up. This will also help you understand different cloud options. It is always a good practice to give credits to that person in the form of acknowledgement.
2. You will submit a report which will document your practical deployment. Screenshots, live images must be included in the report to show your work. Submit your assignment through Google Classroom.
3. Note that you will be asked about this deployment in your sessional.

Rubric

SNo	Task	Marks
1.	Setup NextCloud server. In your report, you will list multiple server setup options and show which option you selected and for what reasons. Describe your set of steps in the submitted report with screenshots. You can get full marks only if you have self-hosted storage server.	10
2.	Describe your deployed service and deployment model.	5
3.	Access your cloud from mobile app and show in your report	5
4.	Access your cloud from desktop and show in your report	5
5.	Create an account for me with username: mudassar.aslam@nu.edu.pk and password: your-full-name. Send your server address to me. I should be able to store my file in your hosted cloud.	5

Help material

- Go through this official webpage to understand practical aspects of the cloud solution: <https://nextcloud.com/athome/>
- You can also google and search for helping tutorials like the following:
 - <https://www.hongkiat.com/blog/build-private-cloud-for-free-using-nextcloud/>
 - <https://www.computerhope.com/issues/ch001982.htm>
- You are NOT required to buy a domain name to give me access. Just tell me your public IP address and if you have correctly routed it to reach to your NextCloud server, then I will see your server page. You can Google "how to access a LAN server over Internet" to find ways. The following tutorial does something similar. Read it to understand your problem and possible fixes.
 - <https://afteracademy.com/blog/how-to-convert-your-laptop-desktop-into-a-server-and-host-internet-accessible-website-on-it-part-2-cdb4b3633fa9>
- Moreover, I don't expect that your server should be running 24/7 as your PC/laptop could be switched off. I will check your report for that and will ask to demonstrate if needed.