😊 AMAZON FSx

Amazon FSx (File System for Windows/Linux) is a fully managed file storage service provided by Amazon Web Services (AWS). It is designed to simplify the setup and operation of file storage in the AWS Cloud for Windows and Linux workloads.

Here are some key features and points about Amazon FSx:

1. **Managed File Storage:** Amazon FSx is a fully managed service, meaning AWS takes care of routine tasks such as hardware provisioning, software configuration, maintenance, and backups.

2. **Windows and Lustre File Systems:** Amazon FSx supports both Windows File Server (for Windows workloads) and Lustre (for high-performance computing applications) file systems.

3. **Integration with AWS Services:** Amazon FSx integrates with various AWS services, such as Amazon S3 for object storage, AWS Direct Connect for dedicated network connections, and AWS Identity and Access Management (IAM) for access control.

4. **Data Transfer and Backup:** It provides features for data transfer, backup, and recovery. You can create automated daily backups, and the service supports both manual and automatic backups.

5. **High Performance:** Depending on the file system type, Amazon FSx provides high-performance storage with features like Multi-AZ deployment for high availability and SSD-based storage.

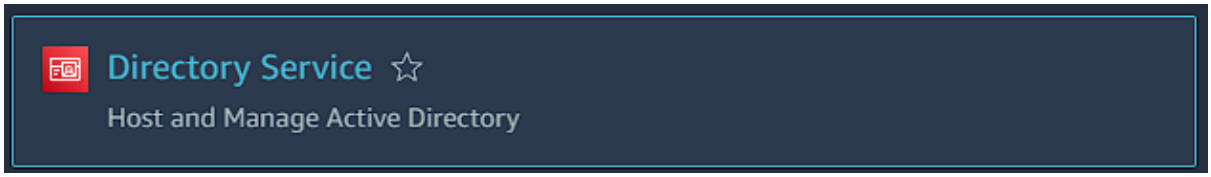
6. **Scalability:** It is designed to scale easily to handle growing workloads, and you can adjust the storage capacity and throughput based on your application requirements.

7. **Security:** Amazon FSx provides features such as encryption at rest and in transit, and it integrates with AWS Key Management Service (KMS) for managing encryption keys.

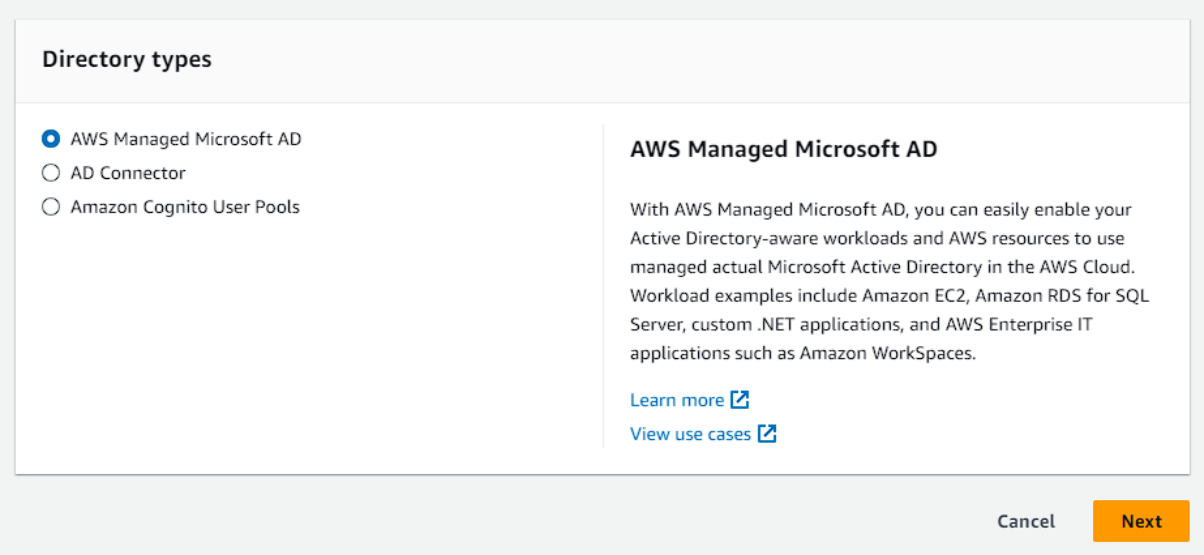
😁 TO BEGIN WITH THE LAB:

🤓 STEP 1: CREATE DIRECTORY

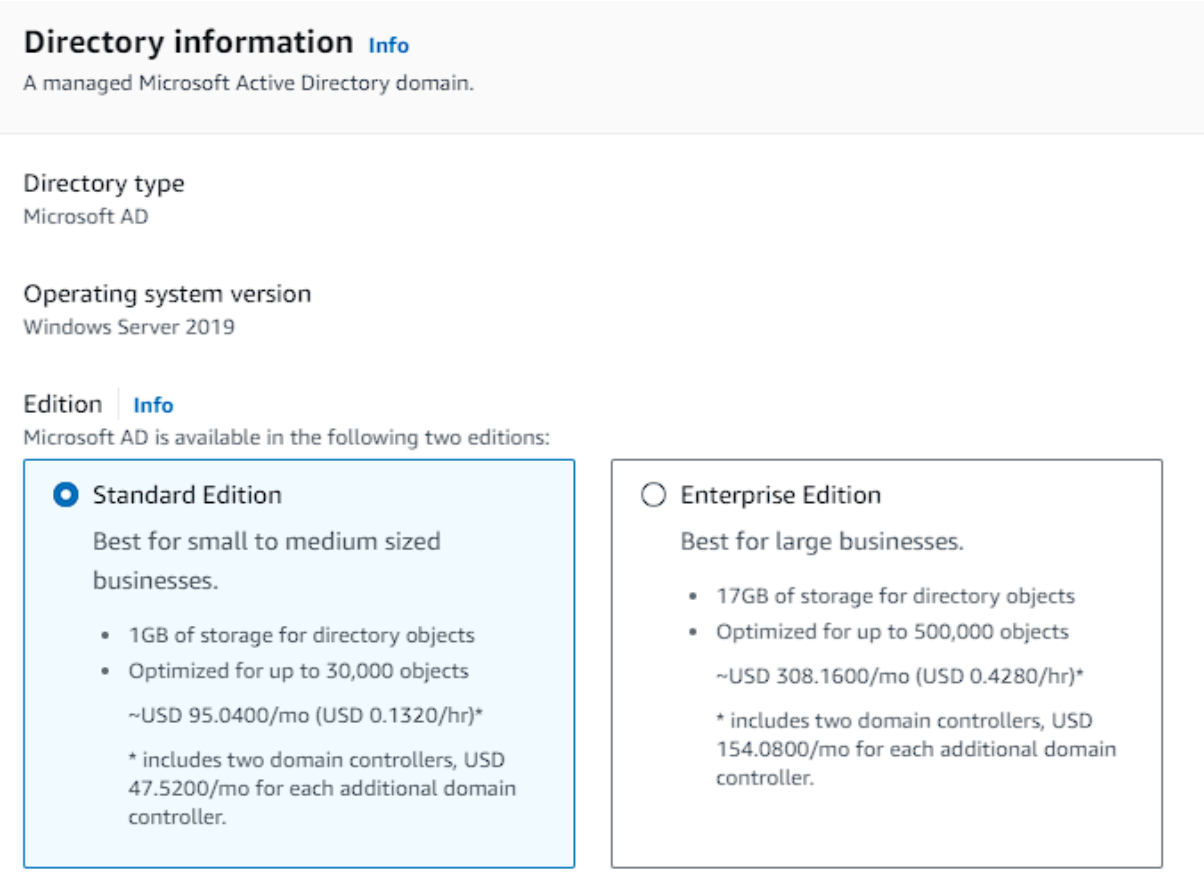
1. So, to create a file system for windows server we use a service called Amazon FSx.
2. So, to create FSx you will need a directory.
3. First you have to create that. For that search for directory service.



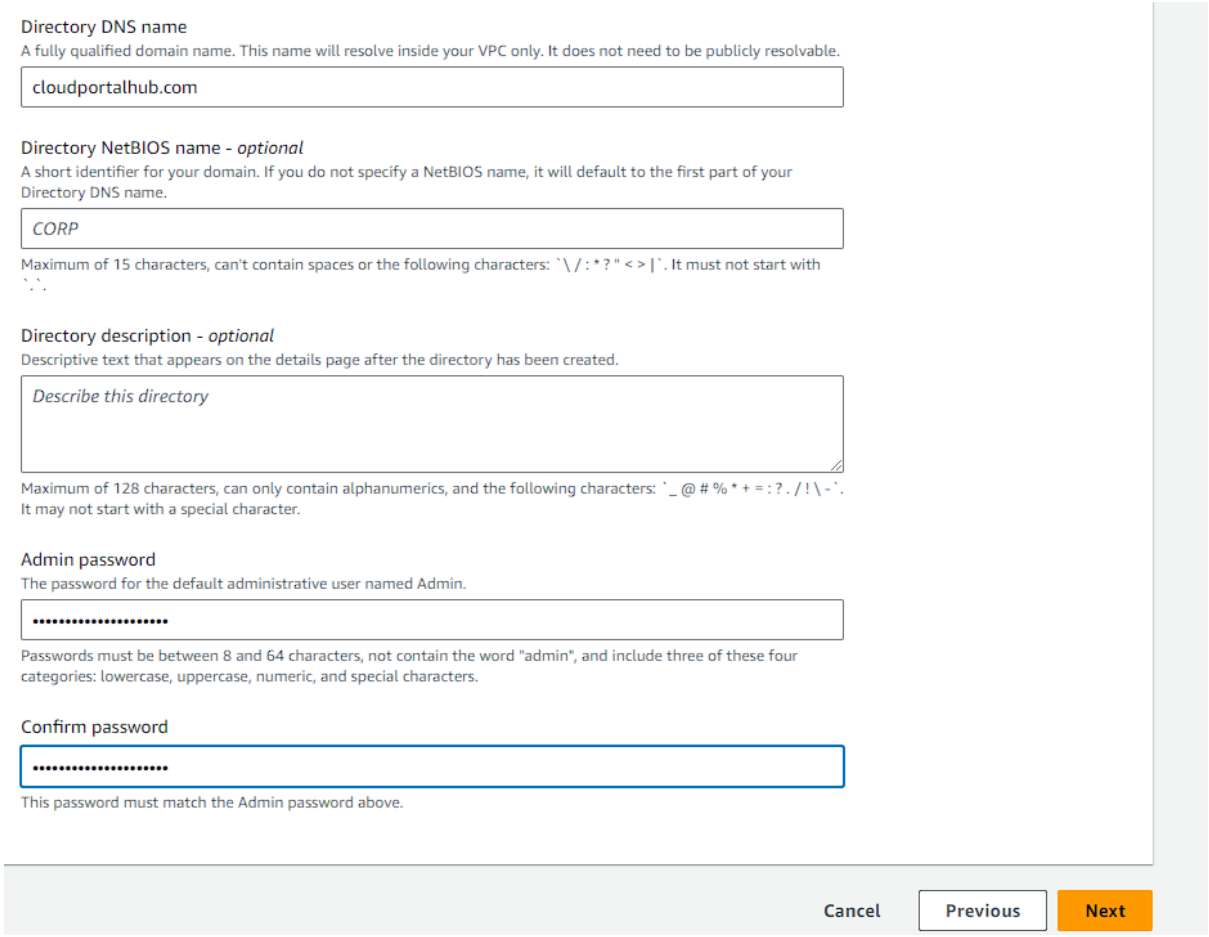
4. Now click on set up a directory.
5. Here you have to choose AWS managed Microsoft AD.



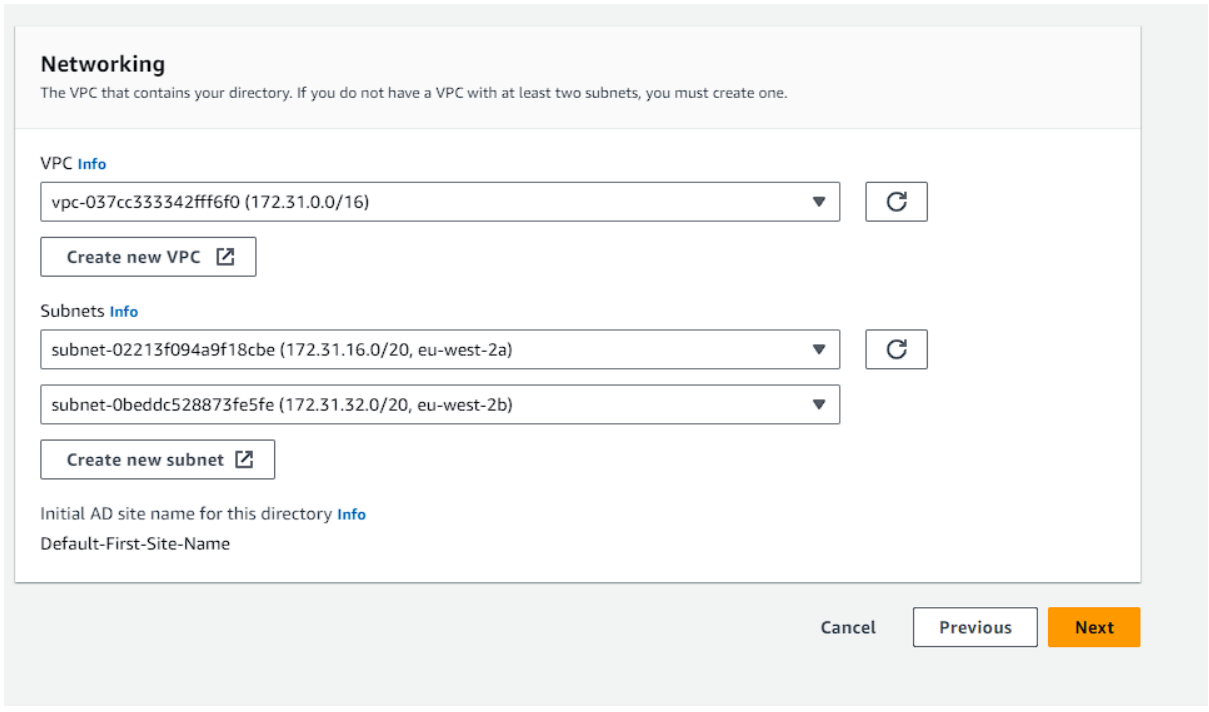
6. Here, you have to choose standard edition.



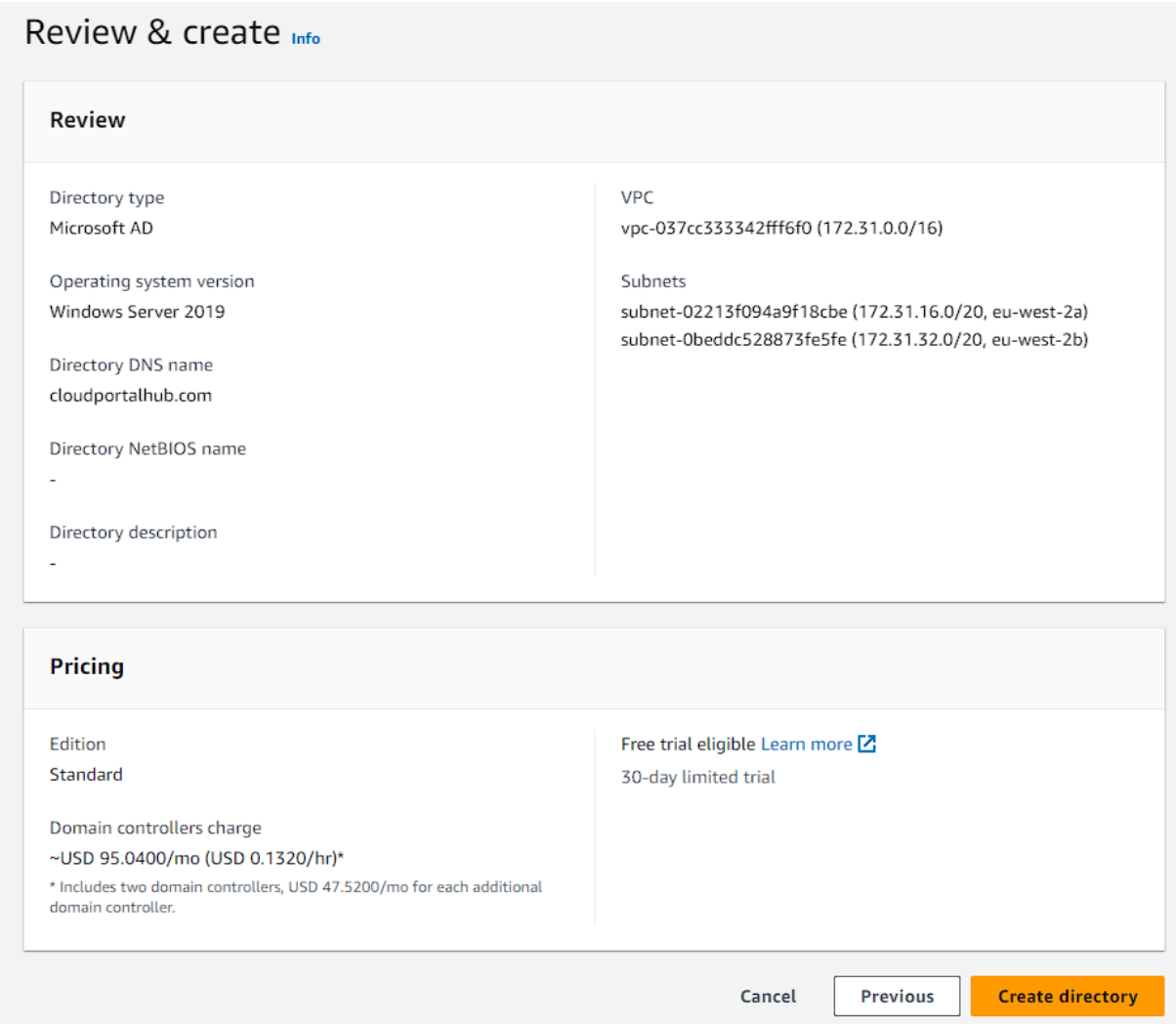
7. Then you have to give a DNS name. The DNS name could be anything which you like.
8. Then give it a password.



9. For the networking part, leave VPC to default and choose your Subnets accordingly.

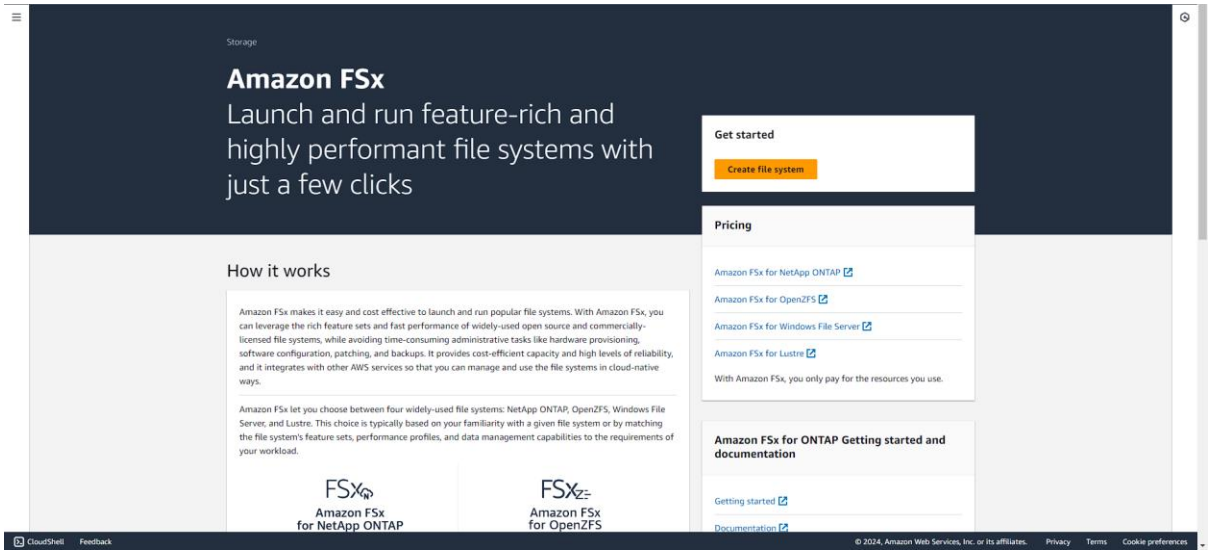


10. Now review your directory and create it.

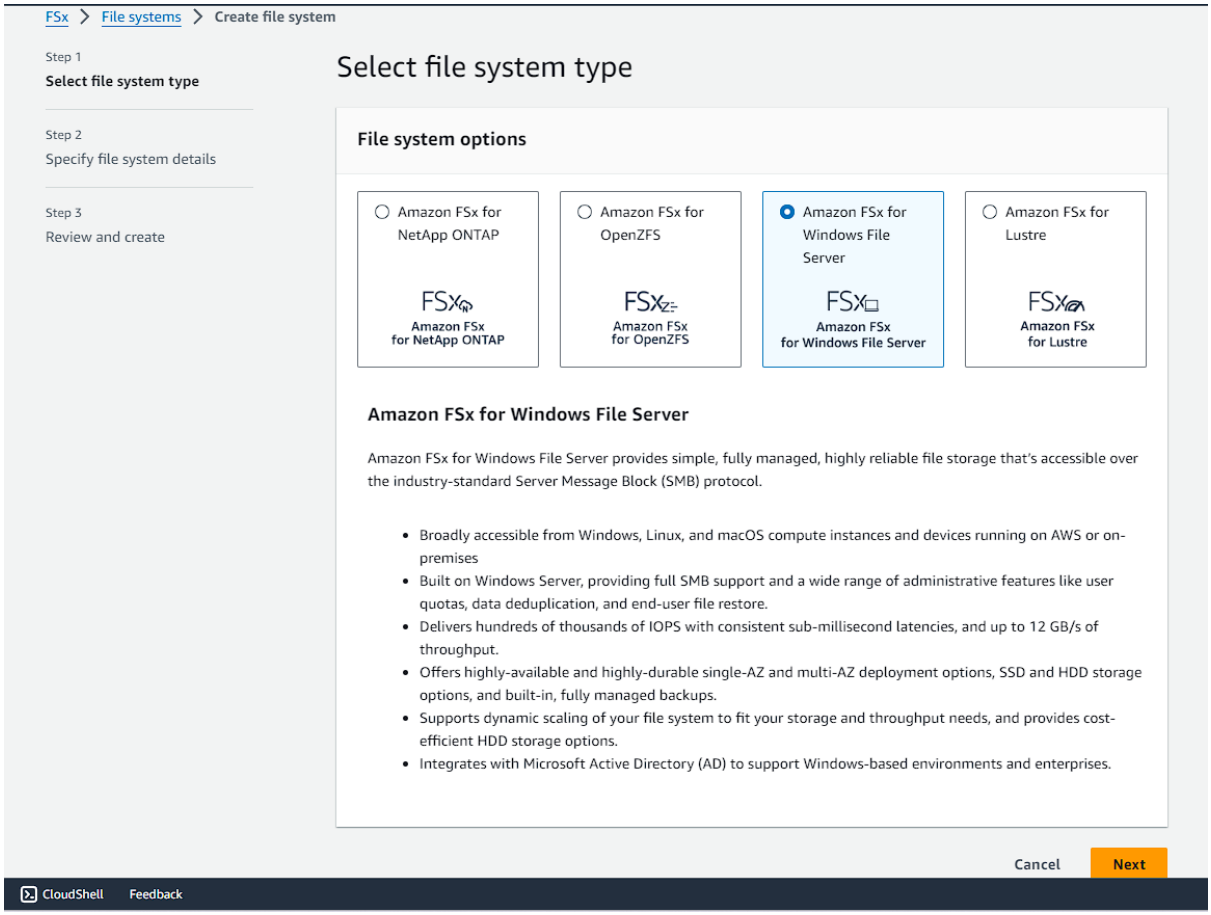


STEP 2: CREATE FSx

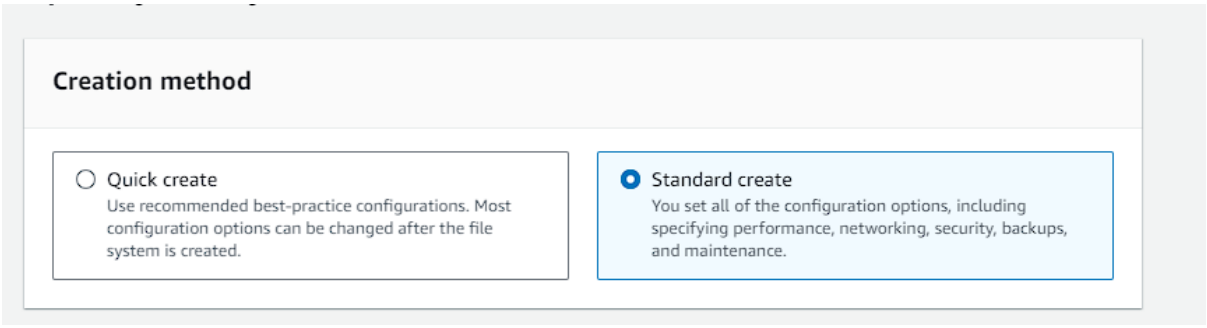
1. Now you have to create a FSx. Search FSx and navigate to it.
2. This the dashboard for FSx.
3. Click on create file system.



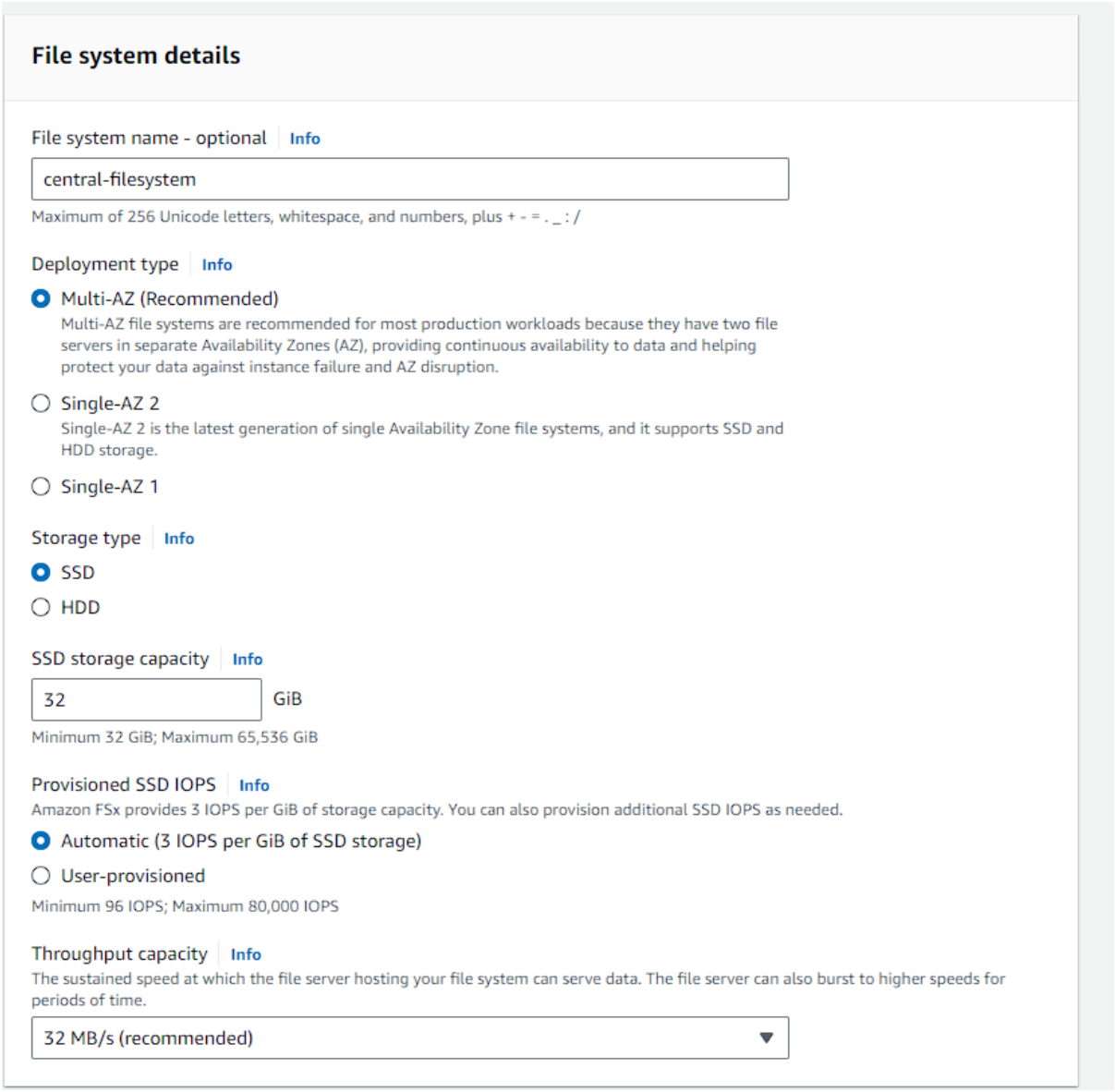
4. Now here you have to choose Amazon FSx for windows file server. Then move to next page.



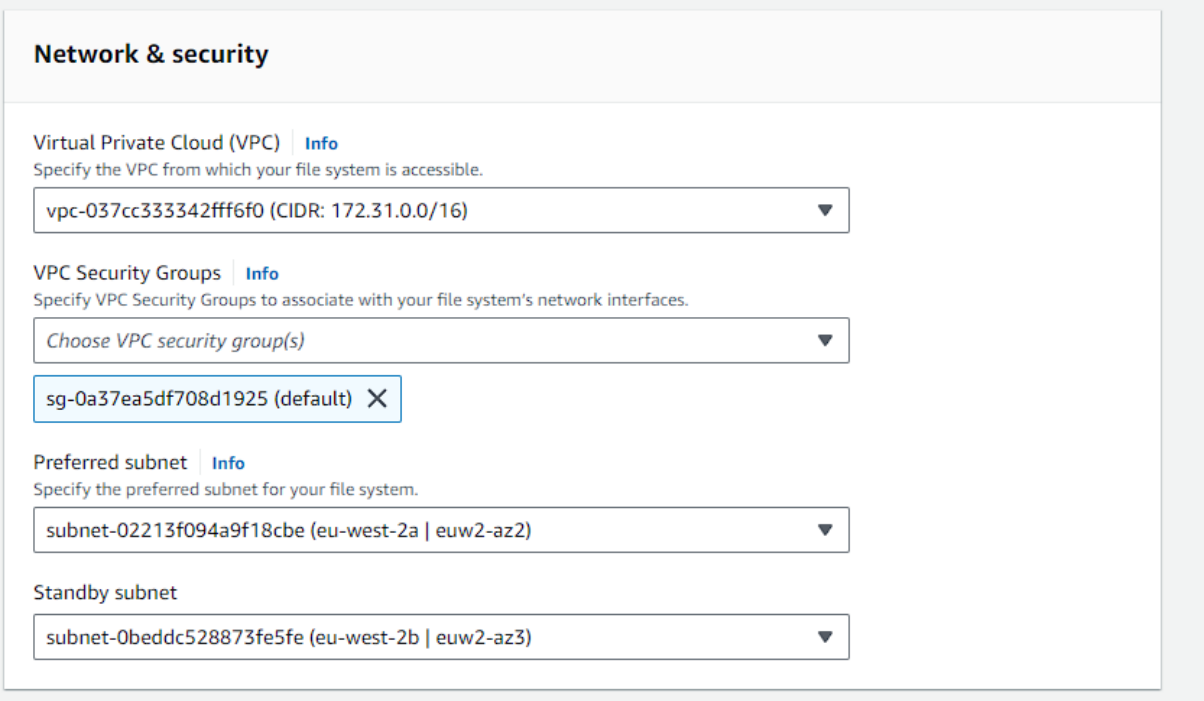
5. Then on the next page for creation method choose Standard create.



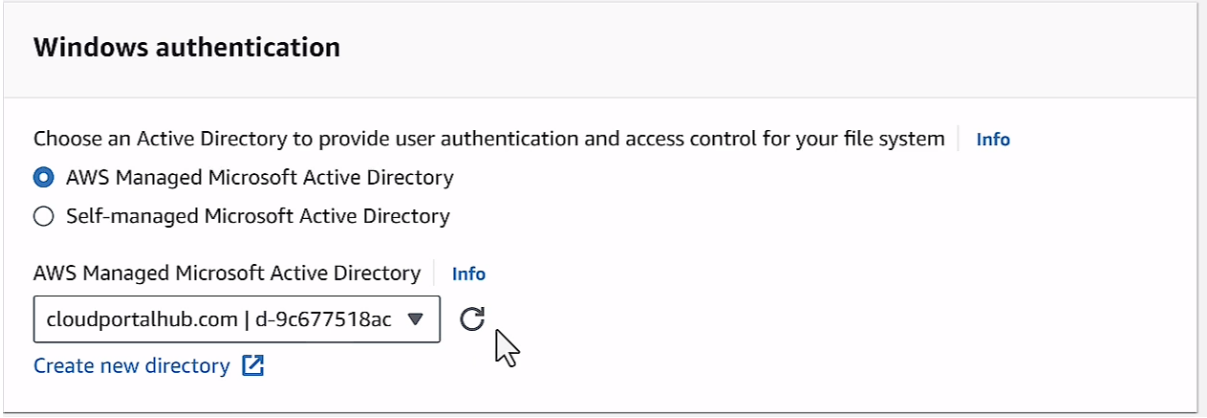
6. Now give a file system name to it.
7. Then select multi-AZ for the deployment.
8. Choose a storage as you wish.



9. Now for the network security leave it default. Just match the subnets, they should be same as of your directory.



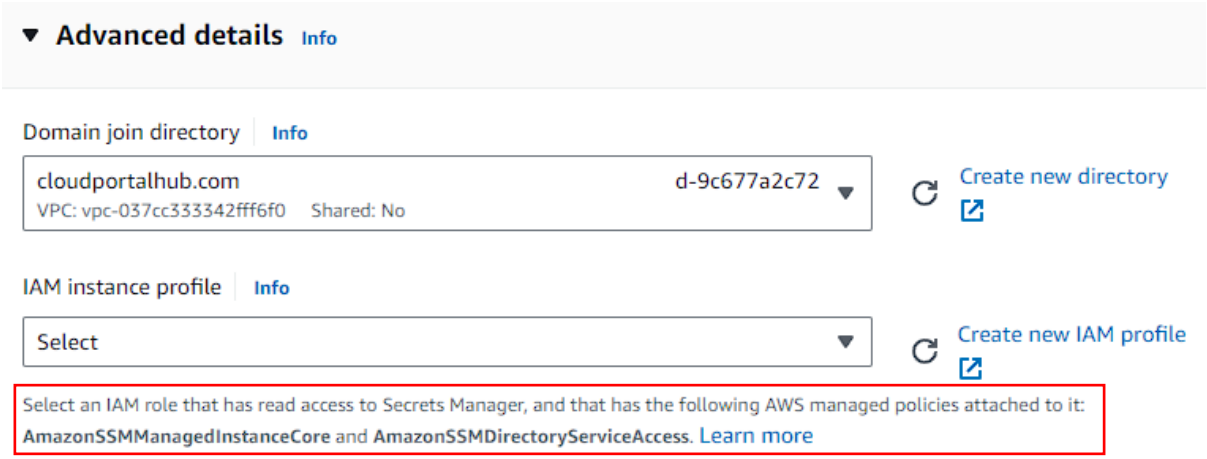
10. Here chooses the directory which you have created.
11. Now directly go to the Review page and create your file system or FSx.



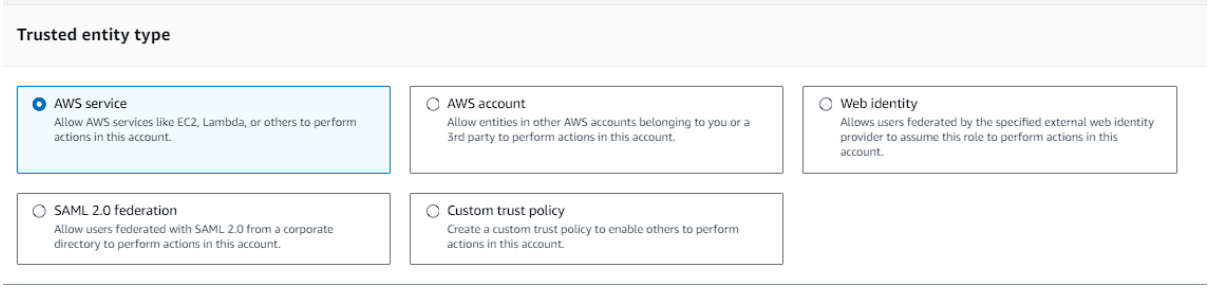
12. Remember it might take time to create, until then go and create your EC2 instance.

🧐 STEP 3: CREATE EC2 INSTANCE

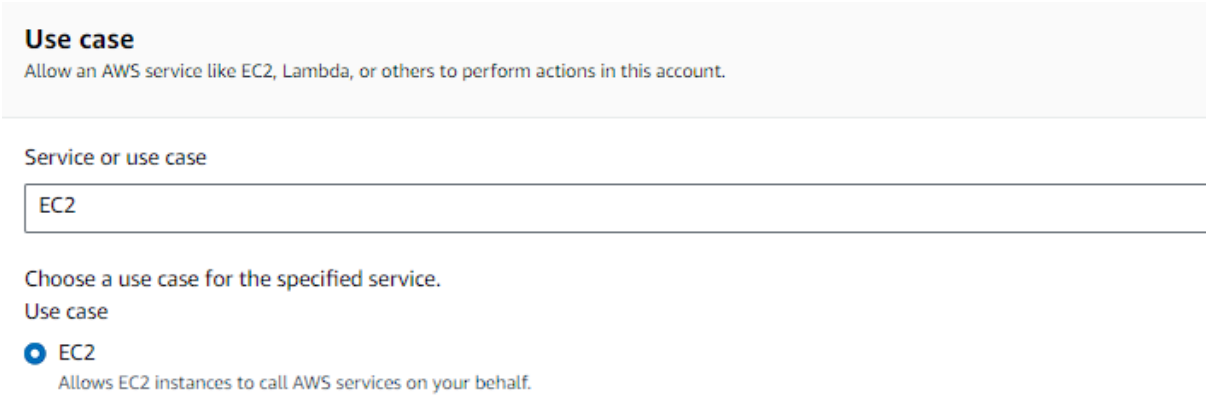
1. Now navigate to EC2 and create a Windows EC2 instance.
2. While creating the instance you have to add something in the advanced options.
3. Click on the advanced options. Here you will see that you can add your directory.
4. With that you have to add an IAM role too.
5. But you didn't have it. So, you have to create an IAM role and the policies you have to attach are written below the IAM instance profile.
6. So, while you are creating your IAM add these two policies to your role.



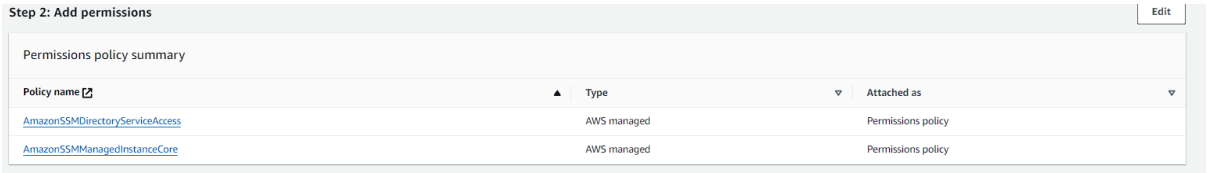
7. To create an IAM role, navigate to IAM, then click on role, then click on create roles.
8. Now choose AWS service.



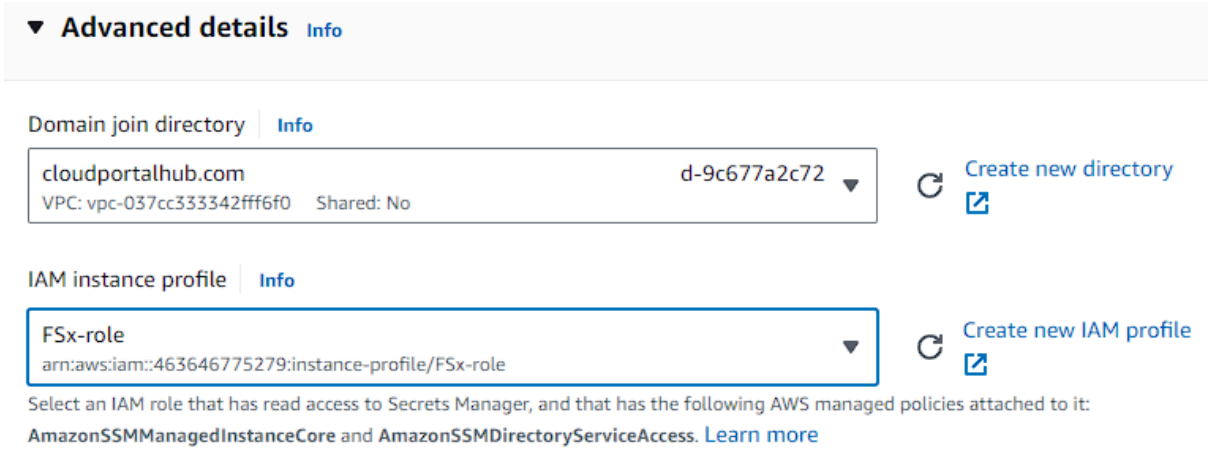
9. Then choose use case as EC2.



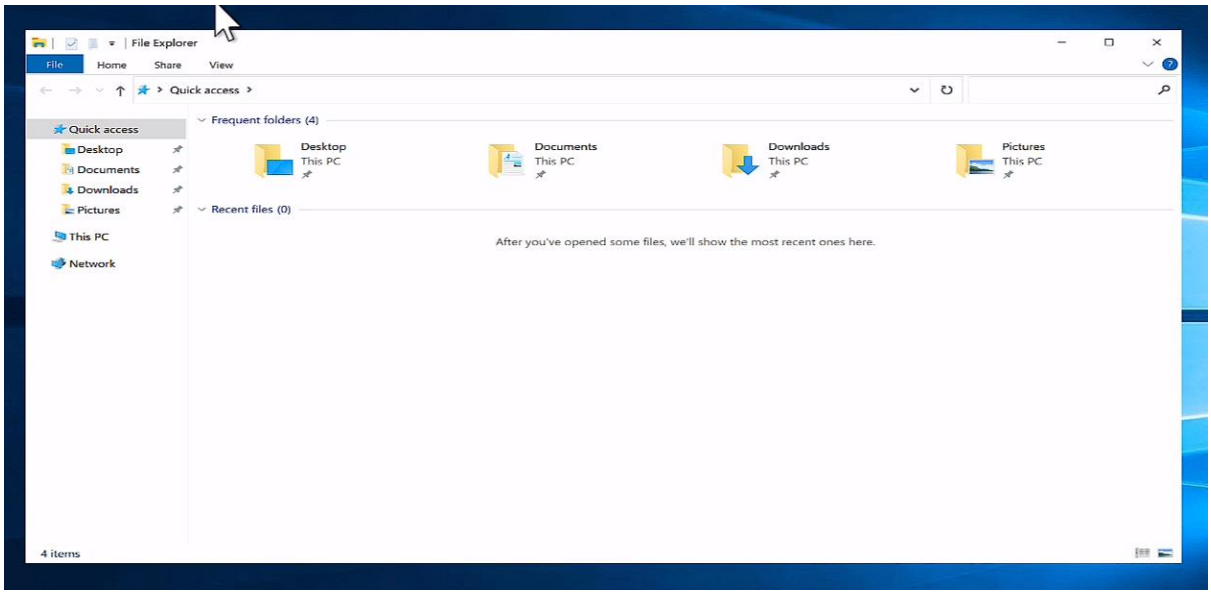
10. Now add these two services.
11. Then give your role a name, and then create it.



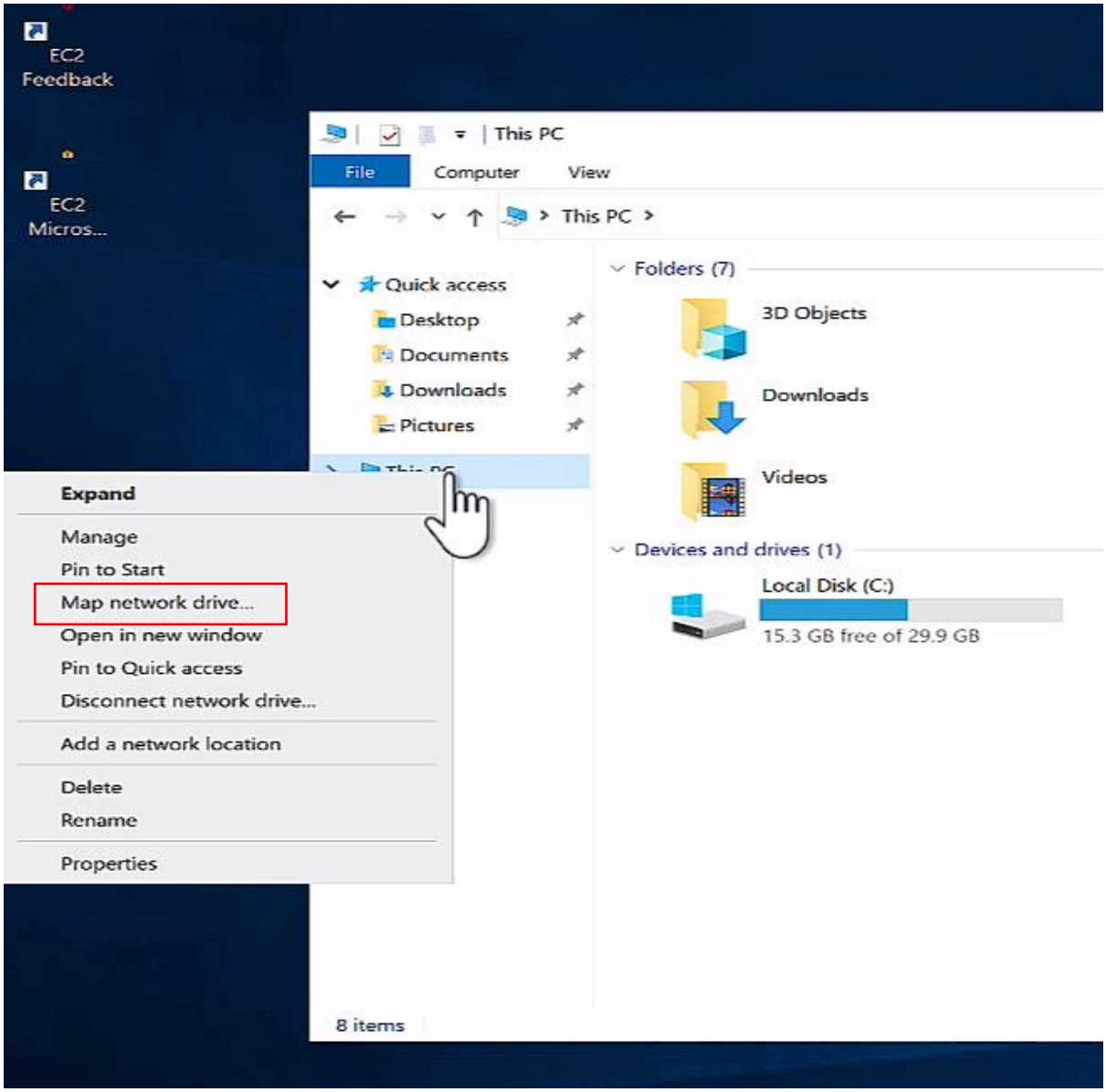
12. Now come to your instance and add your IAM role to it.



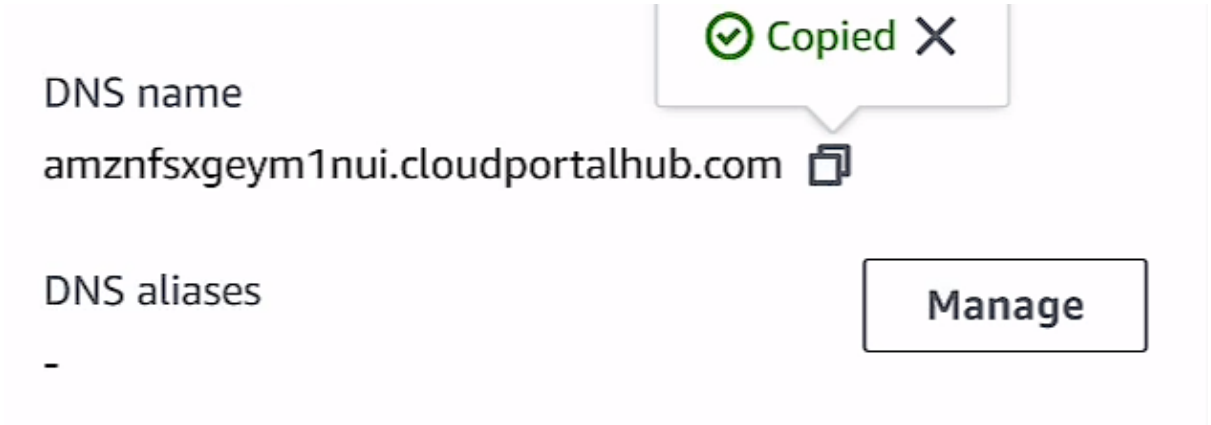
13. Once the role is added then just launch your instance.
14. After the instance is launched successfully, login to your instance. Do a RDP.
15. Once you are in the instance. Open your file explorer.



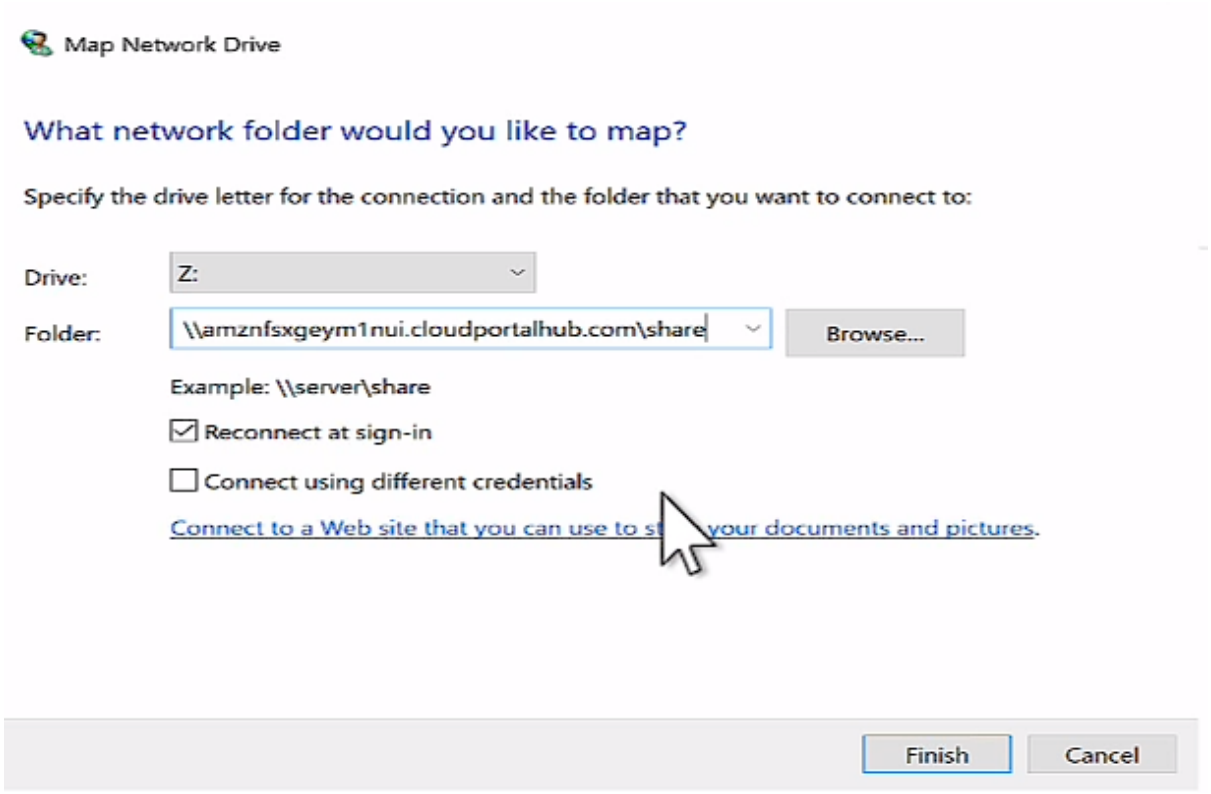
16. Now you have to right click on **This PC** and **choose map network drive.**



17. Now go back to the console and copy the DNS name from FSx.



18. Then paste that DNS name on the map drive. And click on finish.
19. After you have clicked on finish, it will then ask you for user name and password.
20. This user name and password is of your directory.



21. Once you have entered the user's name and password, then if you will go to This PC.
22. You will see shared file system is here for use.