EXPERIMENT 1

AIM: Windows EC2

THEORY:

1) What is DevOps ?

--> DevOps is a software development approach that emphasizes collaboration and communication between development (Dev) and operations (Ops) teams. It aims to shorten the software development lifecycle and improve the quality and reliability of software releases. DevOps will remove the "siloed" conditions between the development team and operations team. In many cases these two teams will work together for the entire application lifecycle, from development and test to deployment to operations, and develop a range of skills not limited to a single function.

Teams in charge of security and quality assurance may also integrate more closely with development and operations over the course of an application's lifecycle under various DevOps models. DevSecOps is the term used when security is a top priority for all members of a DevOps team.

2) What is AWS EC2? Why EC2?

-->EC2 Instance storage is the temporary block storage service provided by AWS. EC2 instance storage, in itself, is not a storage service, but essentially it is a part of the EC2 service. These storage devices physically lie on the same host that provides the EC2 instance and are essentially useful to store temporary data associated with the EC2 instances.

Features of EC2 instance storage:

- **Temporary storage: EC2 instance storage provides temporary storage for EC2 instances.**
- **Cost: The cost of these storage volumes is included in the cost of the EC2 instance. Different instances may have different storage volumes capacity, but the cost is always included in the price of the EC2 instance.**
- **Data Transfer Rate: Since these storage volumes physically reside on the same host as the EC2 server, the I/O speed offered by these storage volumes in *extremely high.* I/O speeds offered by these volumes far exceed other storage options on AWS.**
- **Security: Security on instance store volumes is the same as the security on the EC2 associated with them. The roles, users, and policies which have access to an EC2 instance will have access to the associated Instance Storage Volumes.**
- **Not backed up as AMI: If the user takes an AMI snapshot of an existing EC2 instance, and launches a new instance from that AMI, the instance storage data is not replicated onto the new EC2 instance machine.**

3)

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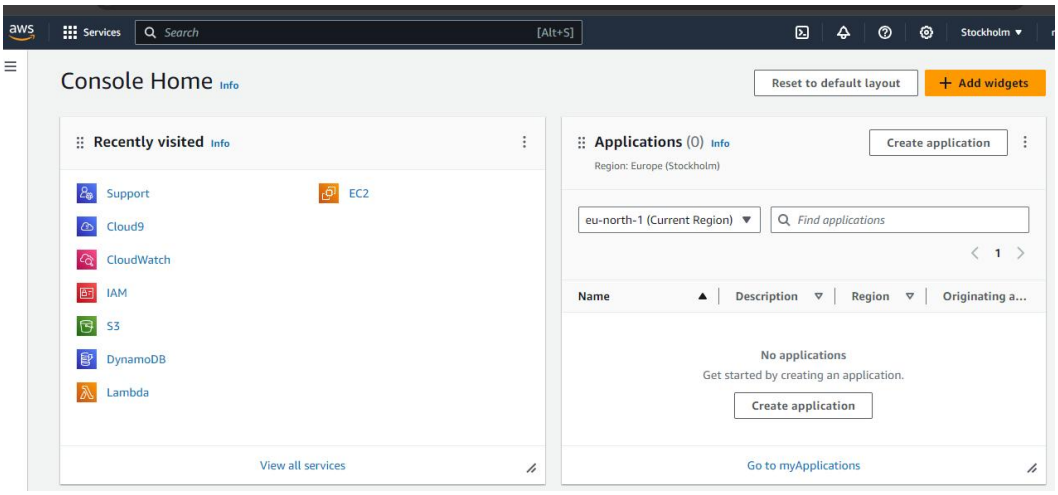
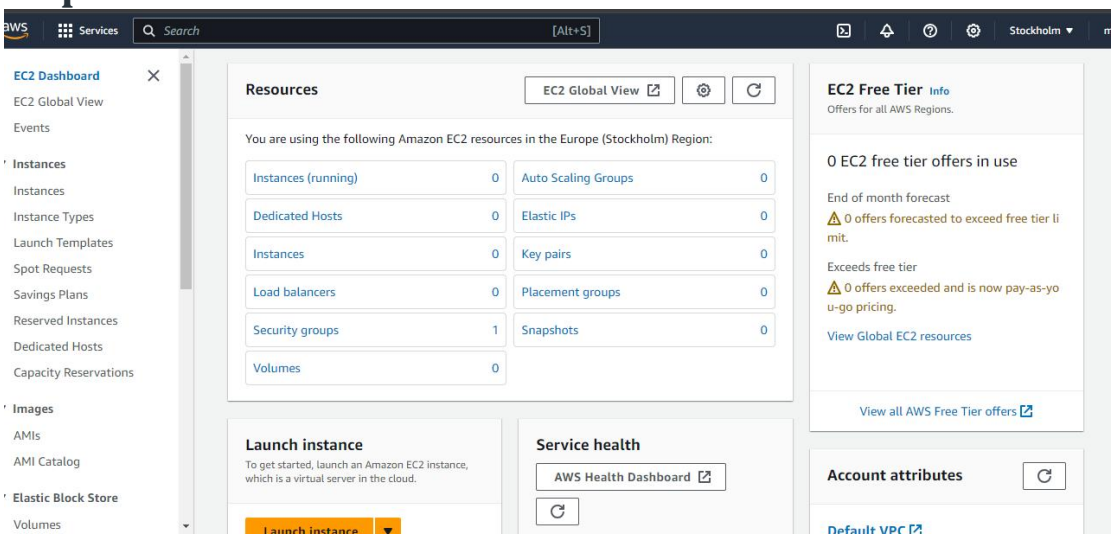
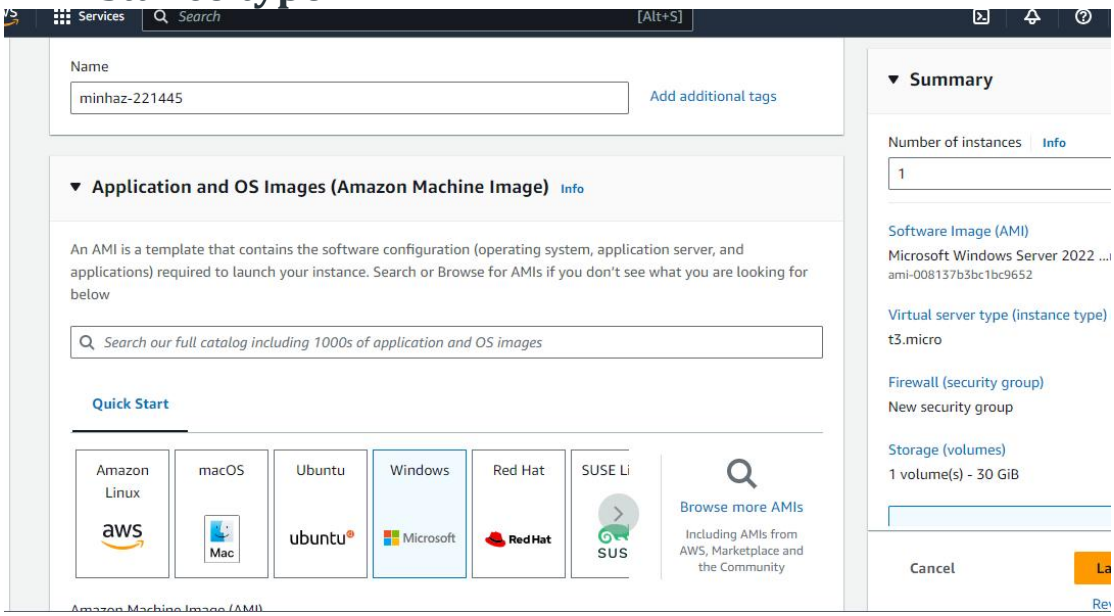
1. **First we will login to our AWS account and locate ec2**



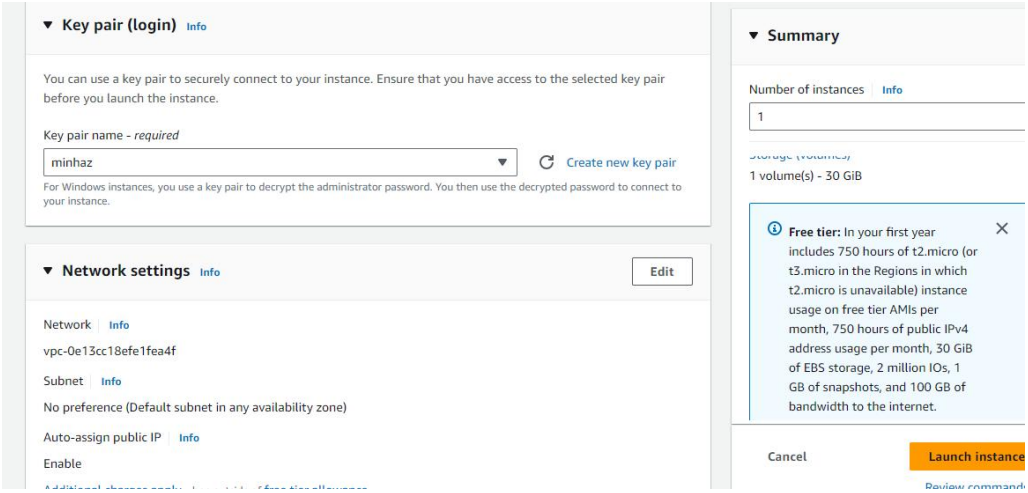
2. **After selecting EC2, EC2 dashboard will open and press launch instance.**



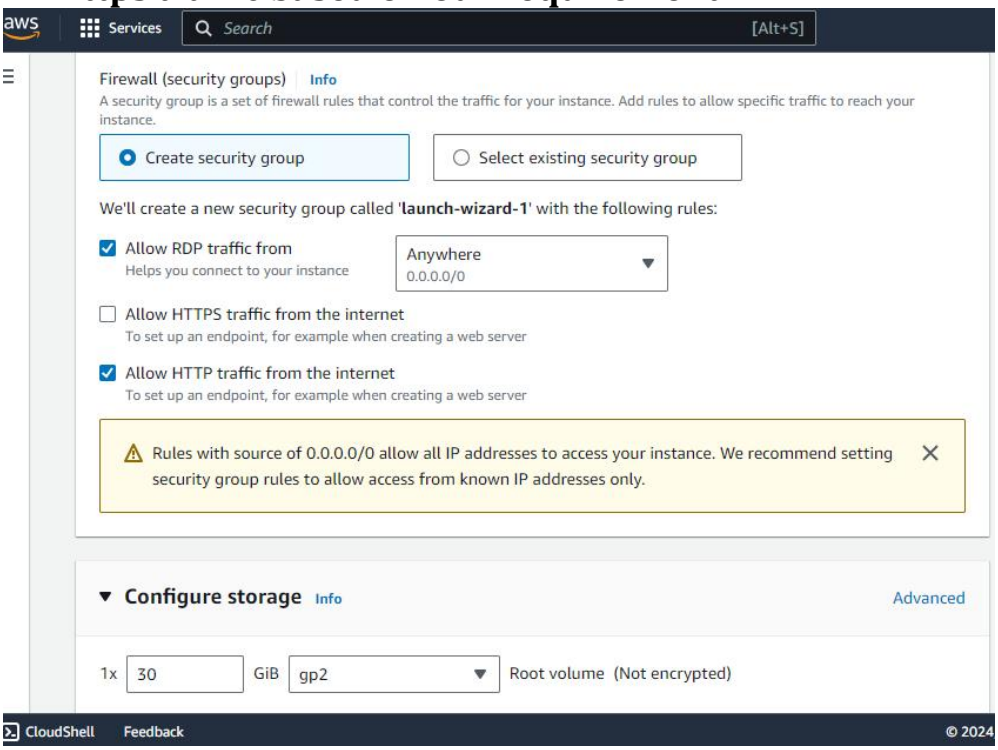
3. **Here we will give our server name and selecting windows as our OS and selecting free-tier eligibile instance type.**



4. **Next we will generate a key pair.**

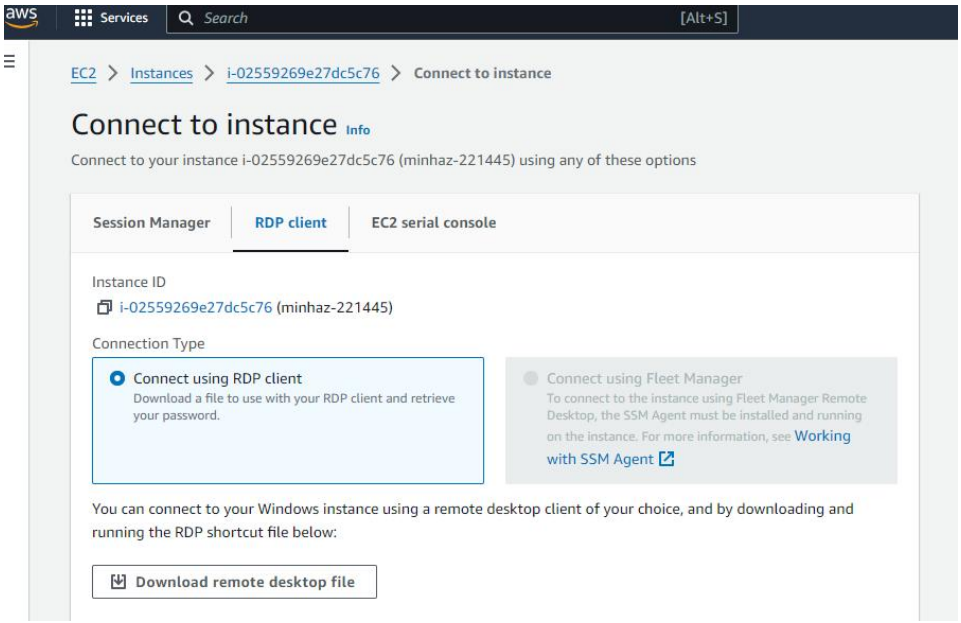


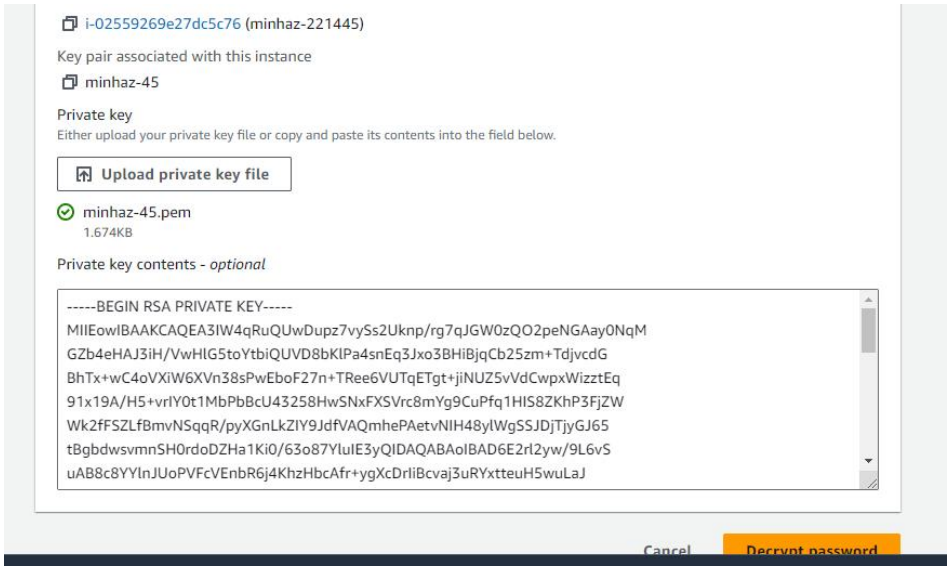
5. In this step, we will enable allow RDP traffic , tick http and https traffic based on our requirement.



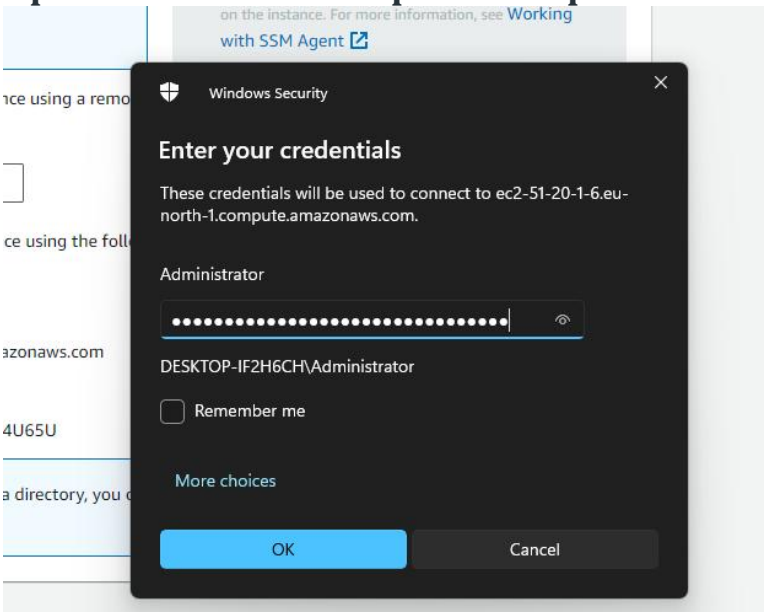
6. Our server is launched.

7. **We will now open our RDP client to get RDP file, pressing on get password and uploading the key file which we have downloaded earlier.**

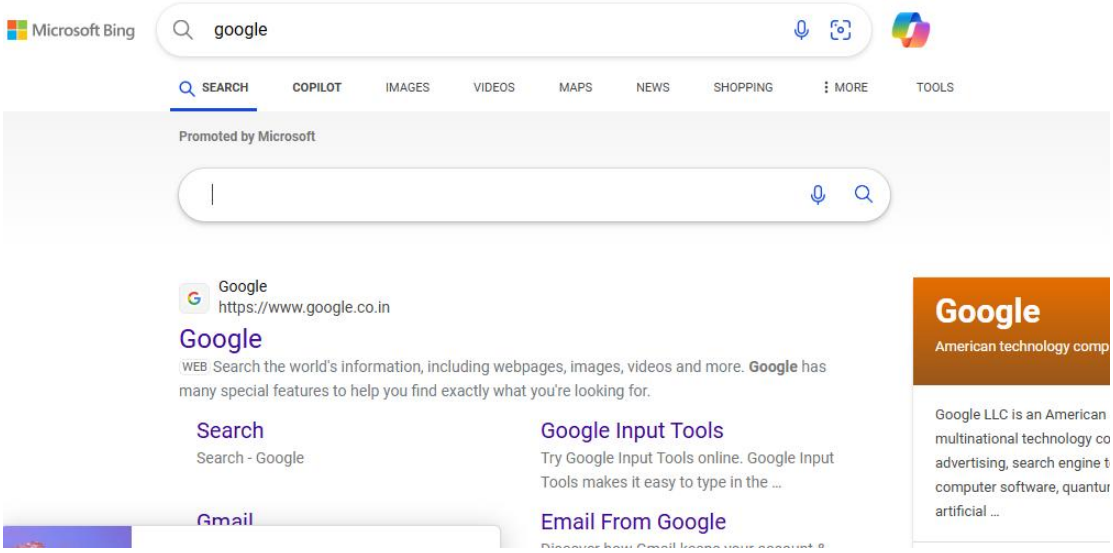




8. Open the RDP file and paste the password.



9. Now we will connected to the remote desktop.



10. After the work we will terminate our instance.