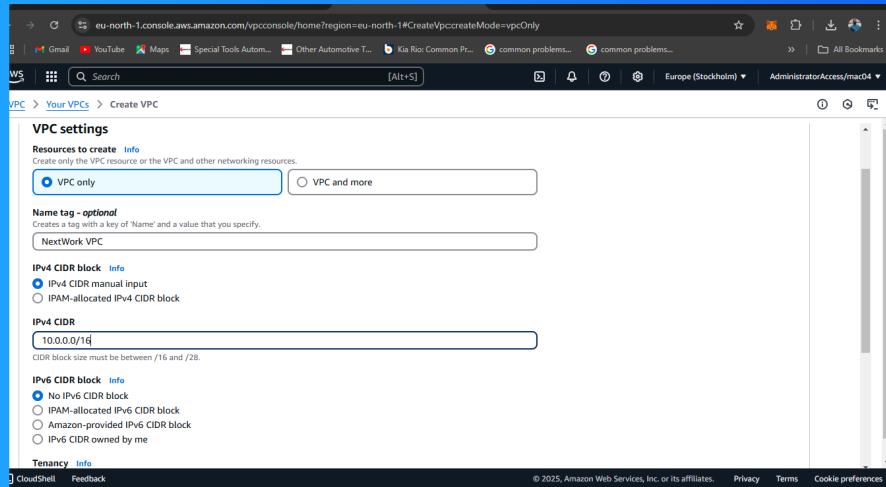




Build a Virtual Private Cloud



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Introducing Today's Project!

What is Amazon VPC?

Amazon VPC is a private network on the cloud and it is useful cause it allows the owner to control who can interact with resources in it.

How I used Amazon VPC in this project

I created an Amazon VPC with Subnets and also attached an Internet gateway to it, to make accessible to external users.

One thing I didn't expect in this project was...

It is very straightforward.

This project took me...

30mins

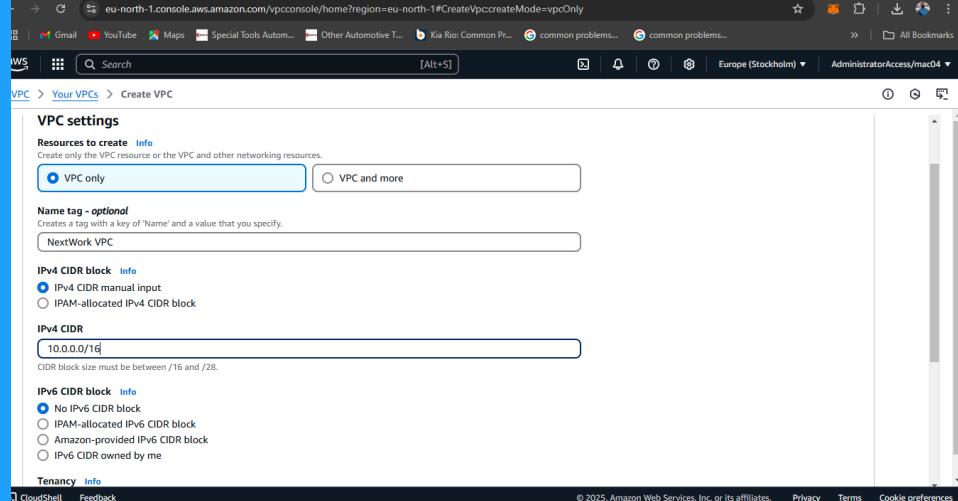


Virtual Private Clouds (VPCs)

VPCs are private networks in the cloud that allows you to control who can access and interact with the resources within the network.

There was already a default VPC in my account ever since my AWS account was created. This is because AWS creates this VPC so that I can run services like EC2 instances in a secure environment.

To set up my VPC, I had to define an IPv4 CIDR block, which is a unique IP address for to identify and exchange data with the resource.





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Subnets

Subnets are like different neighborhood within the VPC. Resources with similar access rules can be grouped in the same Subnet. There are already subnets existing in my account, one for every availability zone.

Once I created my subnet, I enabled auto-assign public IPv4 address. This setting makes sure my subnet is accessible on the internet so that the public can access the data and not just those within my VPC network.

The difference between public and private subnets are the public subnet is accessible to the public via the internet while the private is not accessible by the public. For a subnet to be considered public, it has to be attached to an internet gateway

The screenshot shows the AWS VPC console with a green success message: "You have successfully changed subnet settings: Enable auto-assign public IPv4 address". Below this, the "Subnets (1/1) Info" table lists a single subnet named "Public 1". The table includes columns for Subnet ID, State, VPC, Block Public Access, and IPv4 CIDR. The subnet details page for "subnet-0814c6015bb8349d5 / Public 1" is shown at the bottom, with tabs for Details, Flow logs, Route table, Network ACL, CIDR reservations, Sharing, and Tags. The "Details" tab is selected, showing the Subnet ID, Subnet ARN, State (Available), and Block Public Access (Off).



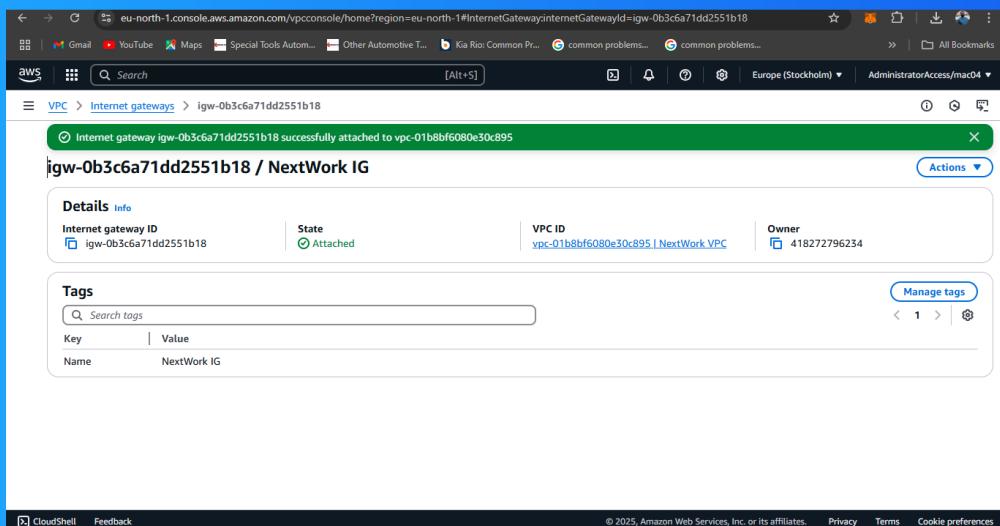
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Internet gateways

Internet gateways are a bridge between the VPC and the internet. The internet gateway makes it possible for services, instance and applications on the VPC, to be available for external users.

Attaching an internet gateway to a VPC means resources in the VPC can now access the internet. If I missed this step, instances hosted on this VPC will not be accessible by external users.





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