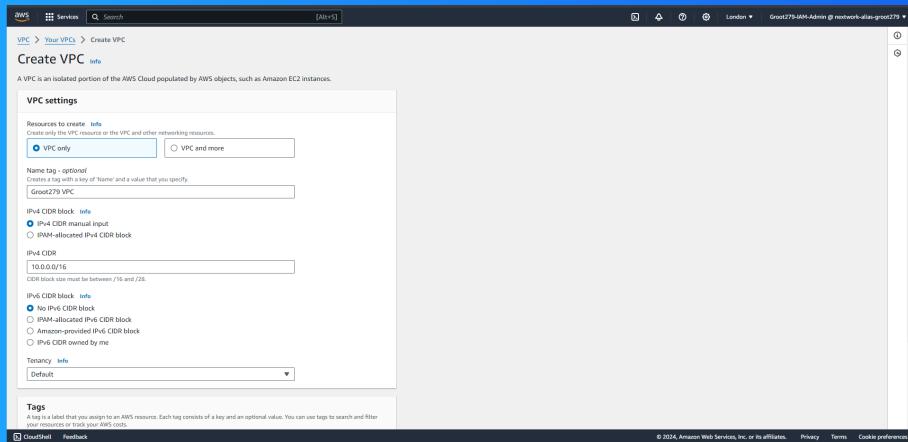




Build a Virtual Private Cloud



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Introducing Today's Project!

What is Amazon VPC?

Amazon VPC (Virtual Private Cloud) is a virtual networking environment within AWS that gives you full control over your network resources, including IP address ranges, subnets, route tables, and security settings.

How I used Amazon VPC in this project

Create a AWS VPC: This will be our isolated network environment. Create a public subnet: This will allow instances to access the internet. Create an internet gateway: This will connect our VPC to the internet.

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

Default vpc and internet gateway

This project took me...

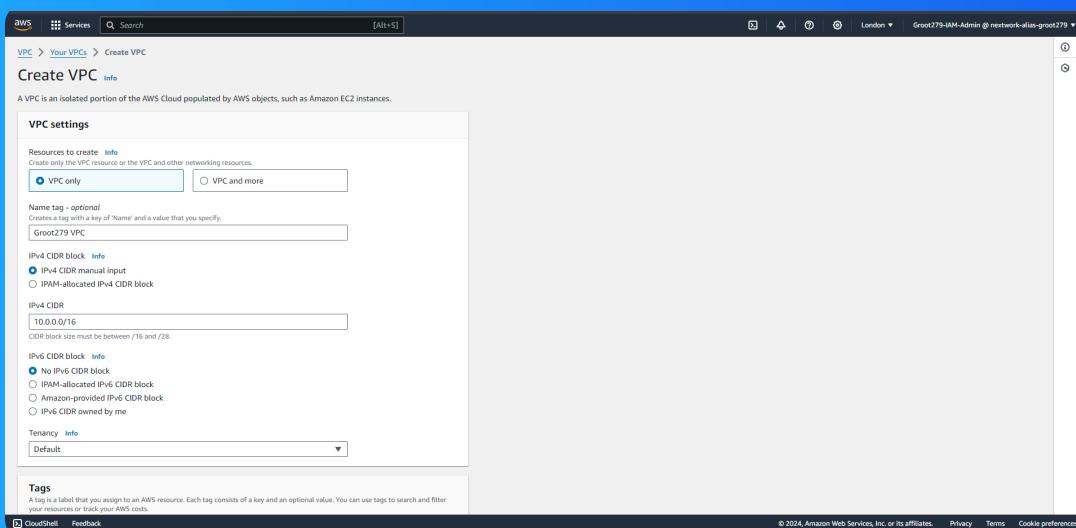
44 minutes

Virtual Private Clouds (VPCs)

VPCs are isolated virtual networks within AWS, providing secure environments for running resources like EC2 instances, databases, and more.

There was already a default VPC in my account ever since my AWS account was created. This is because AWS provides a preconfigured VPC to quickly launch like ec2 or rds db without the need to manually set up a network environment.

To set up my VPC, I had to define an IPv4 CIDR, which means specifying a range of IP addresses that will be used for resources within the VPC. It's like assigning a specific address space for my virtual network.





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Subnets

Subnets are smaller divisions within a VPC, allowing for better organization and control of resources. They define IP address ranges for specific groups of instances, improving network efficiency and security.

There are already subnets existing in my account, one for every Availability Zone within the default VPC. This is to provide a basic network setup for immediate resource launching, making it convenient to get started with AWS services.

I named my subnet Public 1, but that doesn't automatically make my subnet a public subnet. For a subnet to be considered public, it has to be associated with a route table that includes a route to an Internet Gateway. Without this connection, the sub

The screenshot shows the AWS VPC Subnets page. The left sidebar lists 'Virtual private cloud' options: Subnets, Route tables, Internet gateways, Egress-only Internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, and Endpoints. The main content area displays a table titled 'Subnets (1/1) info'. The table has columns: Name, Subnet ID, State, VPC, IPv4 CIDR, IPv6 CIDR, Available IPv4 addresses, and Availability Zone. One row is shown, labeled 'Public 1' with the details: subnet-059d793cb24712a36, Available, vpc-0d74fad029a24d1b, 10.0.0.0/24, -, 251, and eu-west-2a. A search bar at the top of the table says 'Find resources by attribute or tag' and a 'Create subnet' button is located at the bottom right of the table area.

Internet gateways

Internet gateways are virtual devices in AWS that connect your VPC to the internet. They allow instances in your public subnets to access the internet and receive incoming connections from the internet.

Attaching an internet gateway to a VPC means enabling internet connectivity for instances within your public subnets. It allows outbound traffic from your VPC to the internet and inbound traffic to instances with public IP addresses.

Name	Internet gateway ID	State	VPC ID	Owner
-	igw-0c62c2800c5be1a06	Attached	vpc-0992d32c799e188ed	058264334031
Groot279 IG	igw-0gea41e75b9253238	Attached	vpc-0d74fad0029a24d1b1 Groot279 VPC	058264334031



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