

CLOUD SECURITY & MANAGEMENT LAB

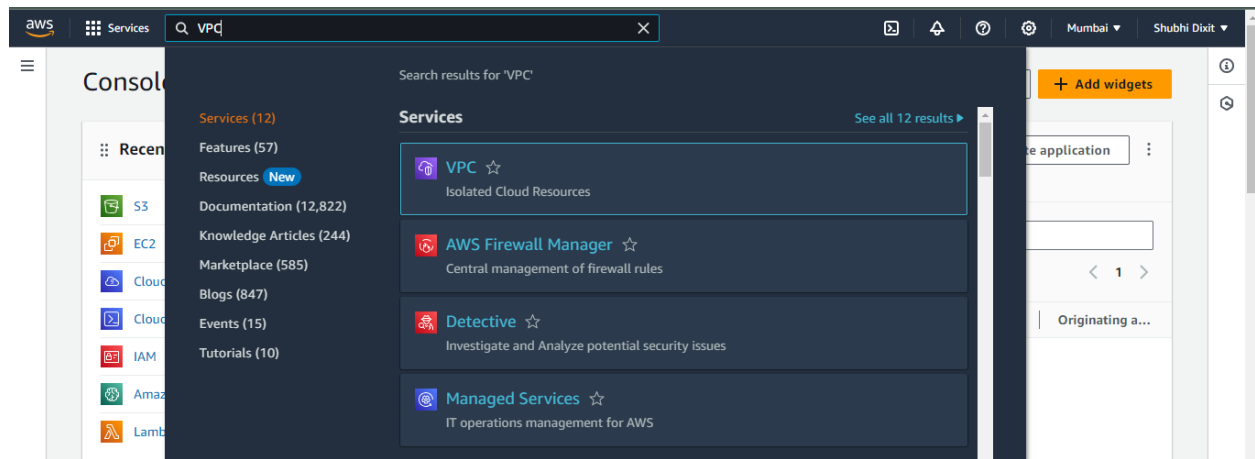
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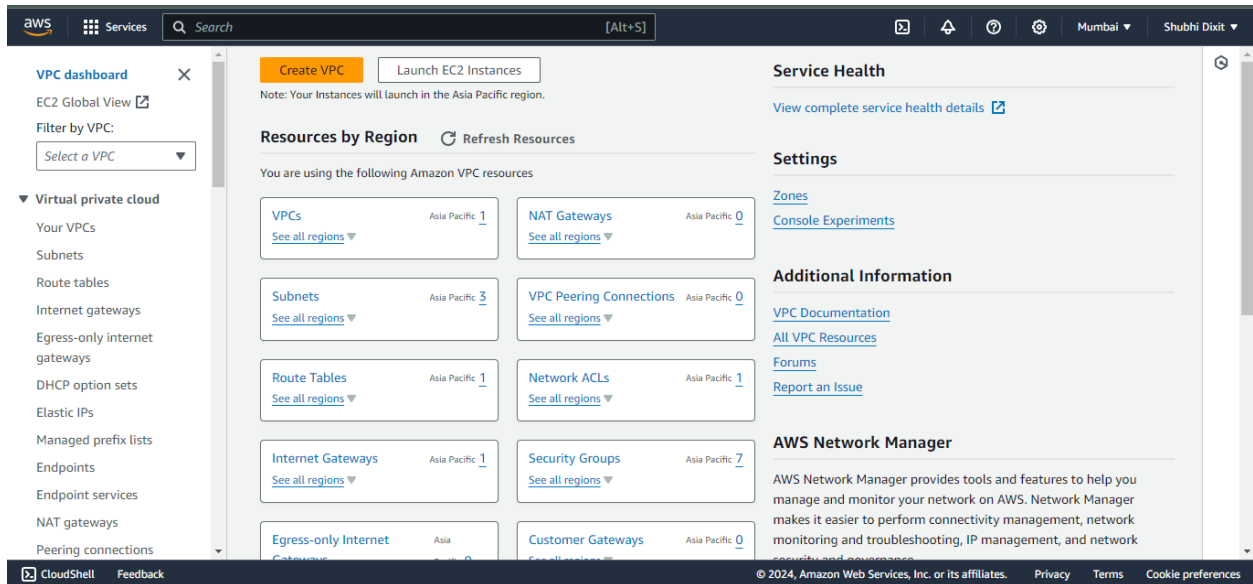
Batch- 05

Statement- Create a Virtual Private Cloud within AWS infrastructure

Step 1: Go to AWS console and search for VPC

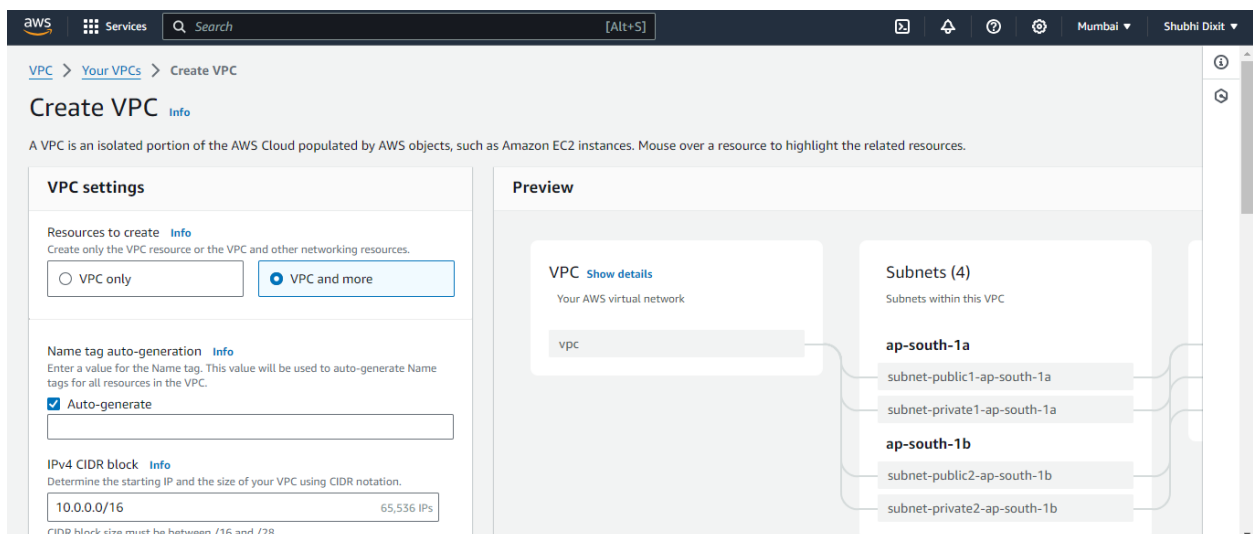


Step 2: Now, click on Create VPC.



Step 3: Here I am creating a VPC in AWS with additional networking options such as private subnets and AZs.

Name your VPC and specify the IP address range for your VPC in CIDR notation. For example, 10.0.0.0/16.



Step 4: Choose the Availability Zone for the subnet and create subnets within the VPC. This time, you'll create both public and private subnets.

Public Subnets: These subnets have a route to an internet gateway (IGW) for internet access.

Private Subnets: These subnets do not have a route to an IGW, making them suitable for resources that should not be directly accessible from the internet.

The screenshot displays the 'Subnets' configuration page in the AWS VPC console. It includes sections for IPv6 CIDR block selection, Tenancy, Number of Availability Zones (AZs), Number of public subnets, and Number of private subnets, each with an 'Info' link.

IPv6 CIDR block [Info](#)

☒ No IPv6 CIDR block

☐ Amazon-provided IPv6 CIDR block

Tenancy [Info](#)

Default ▼

Number of Availability Zones (AZs) [Info](#)

Choose the number of AZs in which to provision subnets. We recommend at least two AZs for high availability.

1 2 3

► **Customize AZs**

Number of public subnets [Info](#)

The number of public subnets to add to your VPC. Use public subnets for web applications that need to be publicly accessible over the internet.

0 2

Number of private subnets [Info](#)

The number of private subnets to add to your VPC. Use private subnets to secure backend resources that don't need public access.

0 2 4

Step 5: Now, choose the availability zone for you NAT gateway and VPC endpoint(optional)

A **NAT (Network Address Translation) Gateway** is a managed service provided by AWS that enables instances in a private subnet to connect to the internet or other AWS services while preventing inbound traffic from initiating a connection with those instances. It acts as a mediator between the private instances and the internet.

A **VPC (Virtual Private Cloud) Endpoint** is a service provided by AWS that enables private connectivity between your VPC and supported AWS services without requiring internet gateways, NAT devices, VPN connections, or direct peering connections.

NAT gateways (\$) [Info](#)
Choose the number of Availability Zones (AZs) in which to create NAT gateways.
Note that there is a charge for each NAT gateway

None	In 1 AZ	1 per AZ
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VPC endpoints [Info](#)
Endpoints can help reduce NAT gateway charges and improve security by accessing S3 directly from the VPC. By default, full access policy is used. You can customize this policy at any time.

None	S3 Gateway
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DNS options [Info](#)

- ☒ Enable DNS hostnames
- ☒ Enable DNS resolution

► **Additional tags**

Then click on create VPC

The VPC is created.

Your VPCs (2) [Info](#)

↻

Actions ▾

Create VPC

🔍 Search

< 1 > ⚙️

<input type="checkbox"/>	Name ▾	VPC ID ▾	State ▾	IPv4 CIDR ▾	IPv6 CIDR
<input type="checkbox"/>	-	vpc-0729c9c058fde03ab	✔️ Available	172.31.0.0/16	-
<input type="checkbox"/>	vpc	vpc-084e0d6a2364ffb6f	✔️ Available	10.0.0.0/16	-