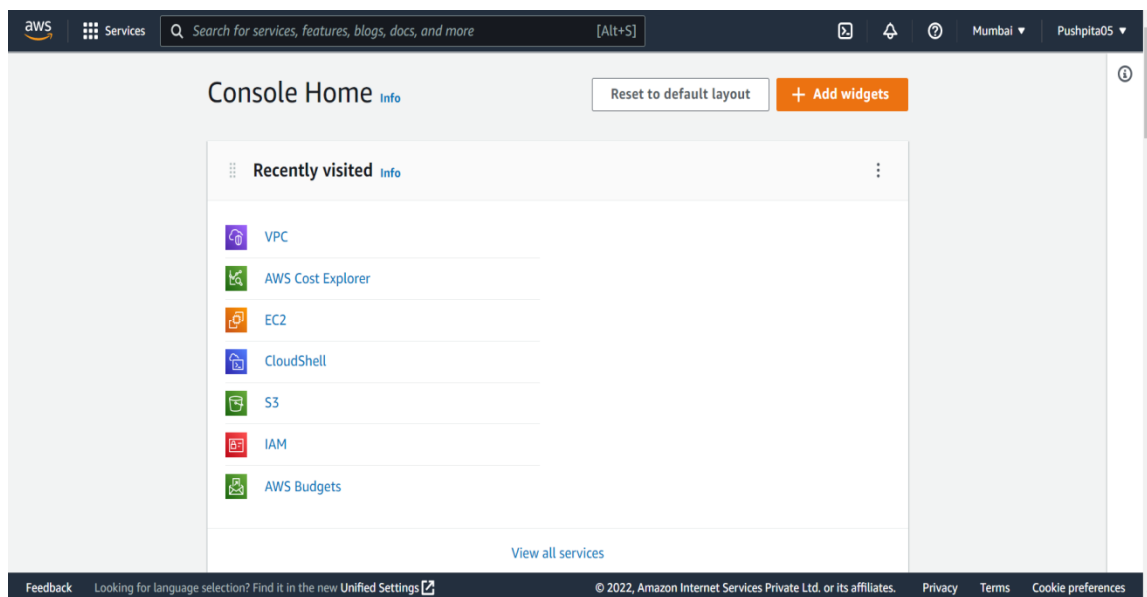


### Experiment 3 - Configuring Virtual Private Cloud VPC & Troubleshoot a VPC

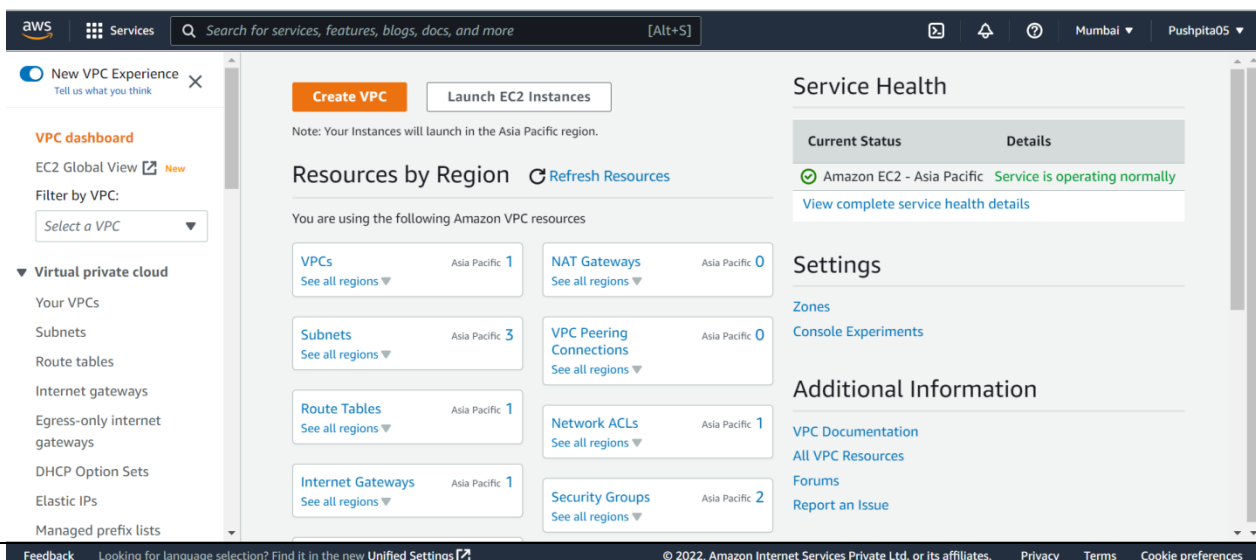
**AIM:** To configure a Virtual Private Cloud VPC & Troubleshoot a VPC

**PROCEDURE:**

1. Firstly, open the AWS console homepage on browser (<https://aws.amazon.com/console/>).



2. Search for VPC in the search bar and open the VPC dashboard page.



3. To create a new VPC, click “Create VPC” and go to the Create VPC page.

The screenshot shows the AWS console 'Create VPC workflow' page. At the top, there's a navigation bar with the AWS logo, 'Services' menu, a search bar, and regional/account information (Mumbai, Pushpita05). Below the navigation bar, the breadcrumb trail reads 'VPC > Your VPCs > Create VPC > Create VPC resources'. The main heading is 'Create VPC workflow'. A success message box at the top says 'Creating VPC Resources' and 'Thank you for using the new create VPC experience. Let us know what you think.' Below this, a 'Details' section lists the following resources created:

- ✓ Create VPC: [vpc-08ae0607689b6aa50](#)
- ✓ Enable DNS hostnames
- ✓ Enable DNS resolution
- ✓ Verifying VPC creation: [vpc-08ae0607689b6aa50](#)
- ✓ Create S3 endpoint: [vpce-0f39a29cf04c8e81d](#)
- ✓ Create subnet: [subnet-081a7cbb3c1e790e7](#)
- ✓ Create subnet: [subnet-0f09ea1456d507200](#)
- ✓ Create subnet: [subnet-0dffc2203343ebf2a](#)
- ✓ Create subnet: [subnet-04fc6e0aa9ba1a699](#)

4. Select the following configurations with appropriate VPC name.

The screenshot shows the AWS console 'VPC details' page for the VPC `vpc-08ae0607689b6aa50`. The breadcrumb trail is 'VPC > Your VPCs > vpc-08ae0607689b6aa50'. The VPC name is `vpc-08ae0607689b6aa50 / puspita-vpc_10.0.0.0/16-vpc`. The 'Details' tab is selected, showing the following configuration:

Property	Value
VPC ID	vpc-08ae0607689b6aa50
State	Available
DNS hostnames	Enabled
DNS resolution	Enabled
DHCP option set	dopt-0d0592e181d6cd210
Main route table	rtb-0366e90cd7fab7731
Main network ACL	acl-0994c803c14dc921b
IPv4 CIDR	10.0.0.0/16
IPv6 pool	-
IPv6 CIDR	-
Tenancy	Default
Default VPC	No
Owner ID	436748659018
Route 53 Resolver DNS Firewall rule groups	-

5. Click on “Create VPC” button and wait for your VPC to be created.

The screenshot shows the AWS Management Console interface for 'Internet gateways'. The left sidebar contains navigation links for 'VPC dashboard', 'EC2 Global View', and 'Filter by VPC'. The main content area is titled 'Internet gateways (1/2)' and includes a search bar and a 'Create internet gateway' button. A table lists the following gateways:

Name	Internet gateway ID	State	VPC ID
-	igw-0339018a6aa617387	Attached	vpc-0316a5030770fcec5
puspita-vpc_10.0.0.0/16-igw	igw-0534e933f4c5518ec	Attached	vpc-08ae0607689b6aa50   puspita-

Below the table, the details for the selected gateway 'igw-0534e933f4c5518ec / puspita-vpc\_10.0.0.0/16-igw' are shown, with tabs for 'Details' and 'Tags'.

6. Click on “View VPC” to view your VPC details.

The screenshot shows the AWS Management Console interface for 'Your VPCs'. The left sidebar contains navigation links for 'VPC dashboard', 'EC2 Global View', and 'Filter by VPC'. The main content area is titled 'Your VPCs (1/2)' and includes a search bar and a 'Create VPC' button. A table lists the following VPCs:

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
-	vpc-0316a5030770fcec5	Available	172.31.0.0/16	-
puspita-vpc_10.0.0.0/16-vpc	vpc-08ae0607689b6aa50	Available	10.0.0.0/16	-

Below the table, the details for the selected VPC 'vpc-08ae0607689b6aa50' are shown, including fields for 'VPC ID', 'State', 'DNS hostnames', 'DNS resolution', 'Tenancy', 'DHCP option set', 'Main route table', 'Main network ACL', 'Default VPC', 'IPv4 CIDR', 'IPv6 pool', and 'IPv6 CIDR'.

7. Click on “Subnets” in the left side menu to view subnets of your VPC.

The screenshot shows the AWS Management Console interface. The left sidebar is expanded, showing the 'Virtual private cloud' section with 'Subnets' highlighted. The main content area displays the 'Subnets (1/7)' page. A table lists the subnets, and the first one is selected. Below the table, the details for the selected subnet are shown.

Name	Subnet ID	State	VPC	IPv4 CIDR
puspita-vpc_10.0.0.0/16-private2-ap-south-1b	subnet-04fc6e0aa9ba1a699	Available	vpc-08ae0607689b6aa50   pus...	10.0.144.0/20
-	subnet-08362ae4973cee071	Available	vpc-0316a5030770fcec5	172.31.32.0/20
-	subnet-07f10441dfbe220a7	Available	vpc-0316a5030770fcec5	172.31.0.0/20
puspita-vpc_10.0.0.0/16-private2-ap-south-1b	subnet-081a7cbb3c1e790e7	Available	vpc-08ae0607689b6aa50   pus...	10.0.0.0/20
puspita-vpc_10.0.0.0/16-private2-ap-south-1b	subnet-0dffc2203343ebf2a	Available	vpc-08ae0607689b6aa50   pus...	10.0.128.0/20
-	subnet-0c52841816c23ad53	Available	vpc-0316a5030770fcec5	172.31.16.0/20
puspita-vpc_10.0.0.0/16-private1-ap-south-1a	subnet-0f09ea1456d507200	Available	vpc-08ae0607689b6aa50   pus...	10.0.16.0/20

Details for selected subnet:

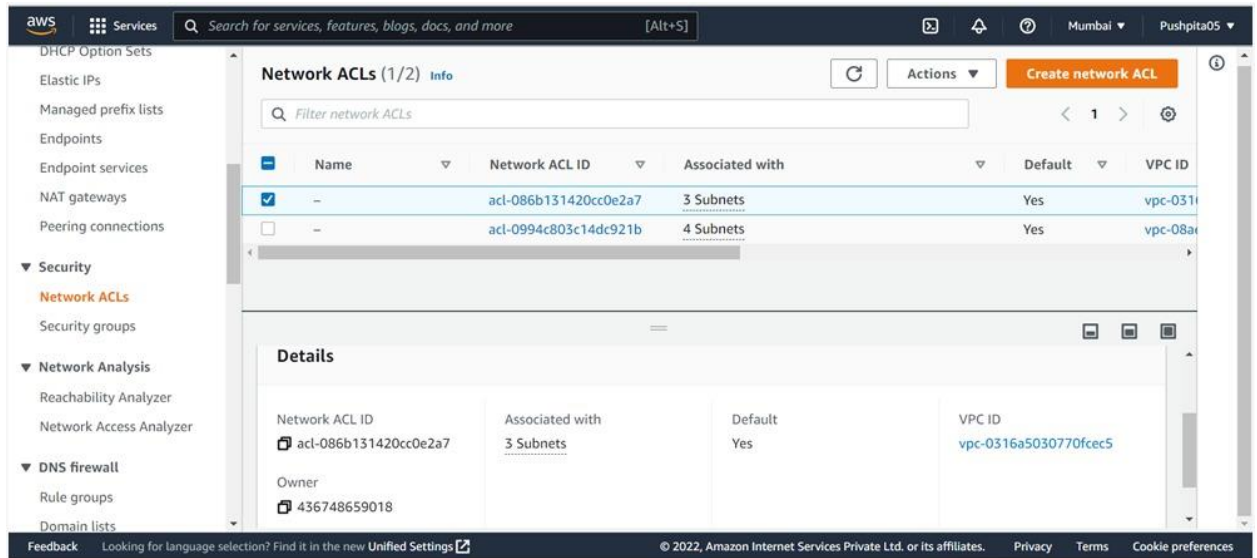
- Subnet ID: subnet-04fc6e0aa9ba1a699
- Subnet ARN: arn:aws:ec2:ap-south-1:436748659018:subnet/subnet-04fc6e0aa9ba1a699
- State: Available
- IPv4 CIDR: 10.0.144.0/20
- Availability Zone: Availability Zone ID

8. Click on “Route Tables” in the left side menu to view route tables of your VPC.

The screenshot shows the AWS Management Console interface. The left sidebar is expanded, showing the 'Virtual private cloud' section with 'Route tables' highlighted. The main content area displays the 'Route tables (5)' page. A table lists the route tables, and the first one is selected.

Name	Route table ID	Explicit subnet associat...	Edge asso
puspita-vpc_10.0.0.0/16-rt-private2-ap-south-1b	rtb-015f821e4580487ce	subnet-04fc6e0aa9ba1a...	-
-	rtb-0366e90cd7fab7731	-	-
puspita-rt-vpc_10.0.0.0/16-rt-public	rtb-04d5c8847a7e096a1	2 subnets	-
-	rtb-0bd55cf09fbd90ff5	-	-
puspita-vpc_10.0.0.0/16-rt-private1-ap-south-1a	rtb-0f2f2c4357c2082e2	subnet-0dffc2203343eb...	-

9. Click on “Network ACL’s” in the left side menu to view ACLs of yourVPC.



**RESULT:**  
A Virtual Private Cloud (VPC) was successfully created and troubleshooted.