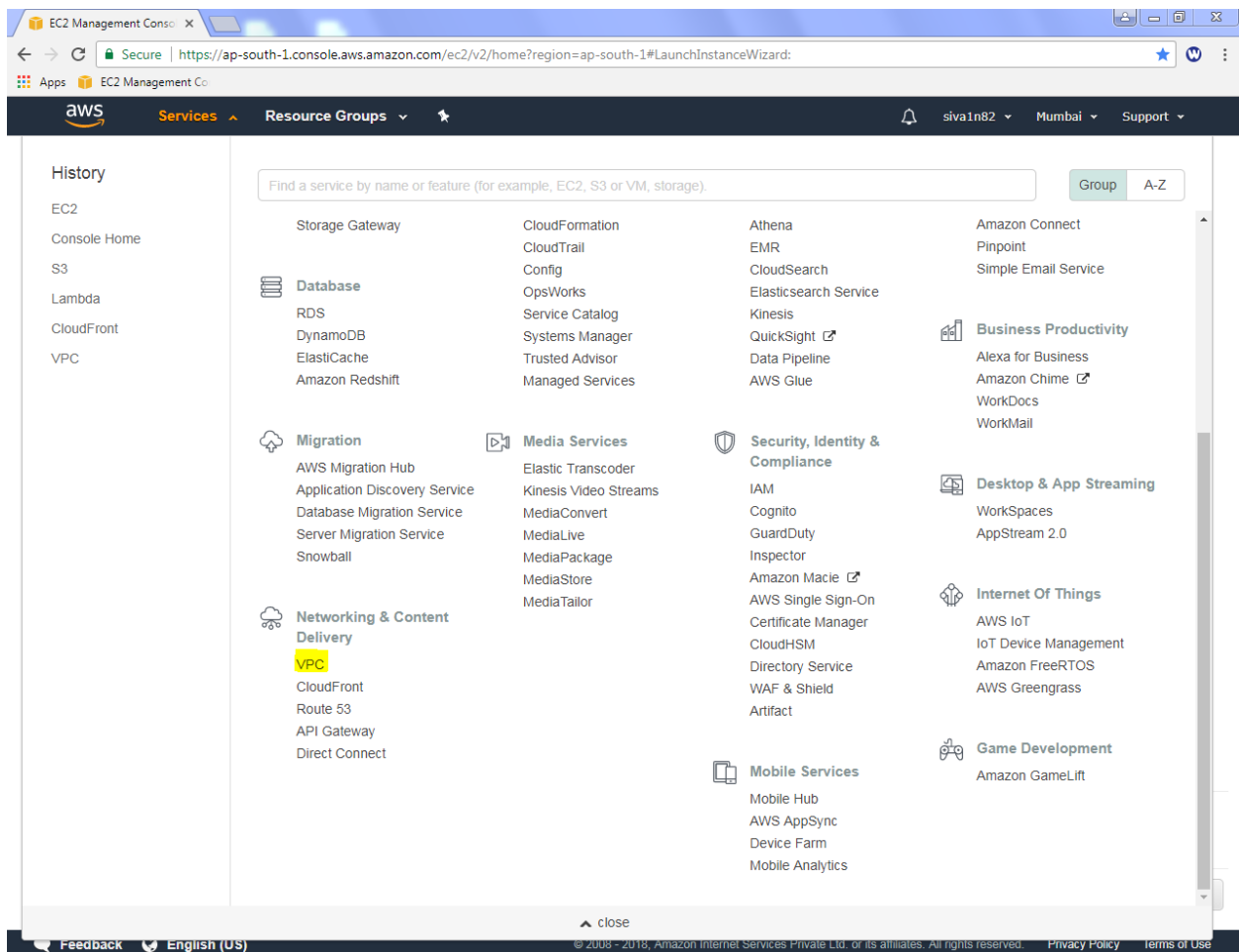


## Lab17

### Configure ELB and Auto scaling in Mumbai Region

While logged into AWS console we can able to see “VPC” in bottom of the page. Click “VPC”.



Click “1 VPC”.

The screenshot displays the AWS VPC Management Console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information (siva1n82, Mumbai, Support). The left sidebar shows the 'VPC Dashboard' with a search filter and a list of VPC-related resources. The main content area is titled 'Resources' and shows a summary of VPC resources in the Asia Pacific (Mumbai) region. The '1 VPC' link is highlighted in yellow. The 'Service Health' section on the right shows that both Amazon VPC and Amazon EC2 services are operating normally. The 'Additional Information' section provides links to VPC documentation, resources, forums, and issue reporting. The footer contains feedback, language settings, and copyright information.

**VPC Dashboard**

Filter by VPC:  
Select a VPC

**Virtual Private Cloud**

- Your VPCs
- Subnets
- Route Tables
- Internet Gateways
- Egress Only Internet Gateways
- DHCP Options Sets
- Elastic IPs
- Endpoints
- Endpoint Services
- NAT Gateways
- Peering Connections
- Security
- Network ACLs
- Security Groups
- VPN Connections
- Customer Gateways
- Virtual Private Gateways
- VPN Connections

**Resources**

Note: Your Instances will launch in the Asia Pacific (Mumbai) region.

You are using the following Amazon VPC resources in the Asia Pacific (Mumbai) region:

- 1 VPC
- 0 Egress-only Internet Gateways
- 2 Route Tables
- 0 Elastic IPs
- 0 Endpoints
- 4 Security Groups
- 0 VPN Connections
- 0 Customer Gateways
- 1 Internet Gateway
- 2 Subnets
- 1 Network ACL
- 0 VPC Peering Connections
- 0 Nat Gateways
- 0 Running Instances
- 0 Virtual Private Gateways

**Service Health**

Current Status	Details
Amazon VPC - Asia Pacific (Mumbai)	Service is operating normally
Amazon EC2 - Asia Pacific (Mumbai)	Service is operating normally

[View complete service health details](#)

**Additional Information**

- [VPC Documentation](#)
- [All VPC Resources](#)
- [Forums](#)
- [Report an Issue](#)

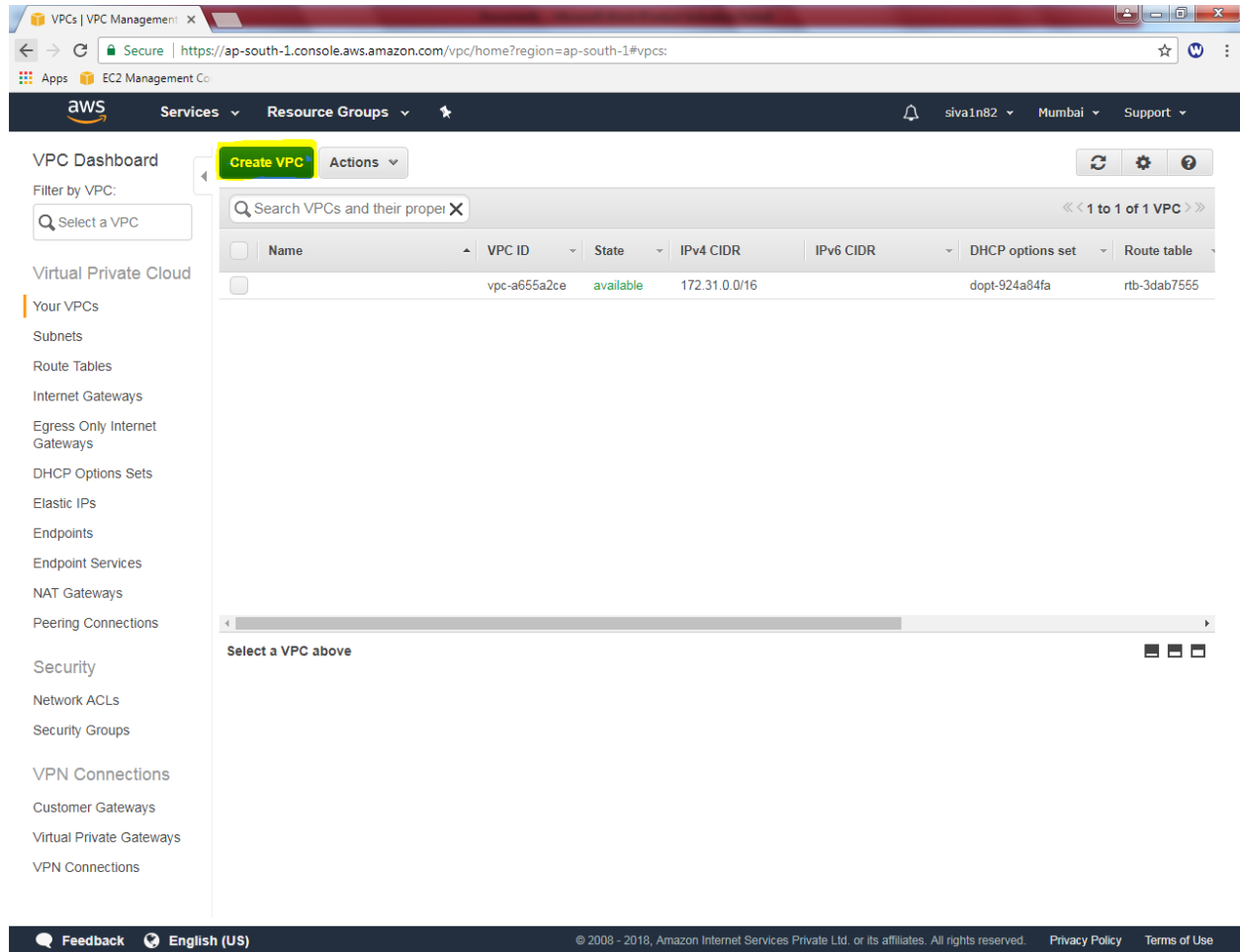
**VPN Connections**

Amazon VPC enables you to use your own isolated resources within the AWS cloud, and then connect those resources directly to your own datacenter using industry-standard encrypted IPsec VPN connections.

[Create VPN Connection](#)

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Click “Create VPC”.



While creating VPC, name tag as “Sansbound\_VPC\_Mumbai”, IPV4 CIDR Block as “10.0.0.0/16” subnet then click “Yes, Create”

### Create VPC

A VPC is an isolated portion of the AWS cloud populated by AWS objects, such as Amazon EC2 instances. You must specify an IPv4 address range for your VPC. Specify the IPv4 address range as a Classless Inter-Domain Routing (CIDR) block; for example, 10.0.0.0/16. You cannot specify an IPv4 CIDR block larger than /16. You can optionally associate an Amazon-provided IPv6 CIDR block with the VPC.

Name tag

IPv4 CIDR block\*

IPv6 CIDR block\* ☒ No IPv6 CIDR Block ☐ Amazon provided IPv6 CIDR block

Tenancy

[Cancel](#) [Yes, Create](#)

Then click subnet, click “Create subnet”.

Subnets | VPC Management

Secure | https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#subnets:

Apps EC2 Management Console

aws Services Resource Groups

siva1n82 Mumbai Support

VPC Dashboard

Create Subnet Subnet Actions

Filter by VPC: Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Peering Connections

Security

Network ACLs

Security Groups

VPN Connections

Customer Gateways

Virtual Private Gateways

VPN Connections

Search Subnets and their properties

<< 1 to 2 of 2 Subnets >>

	Name	Subnet ID	State	VPC	IPv4 CIDR	Available IPv4	IPv6 CIDR
<input type="checkbox"/>		subnet-6cb69e21	available	vpc-a655a2ce	172.31.0.0/20	4091	
<input type="checkbox"/>		subnet-85e817ed	available	vpc-a655a2ce	172.31.16.0/20	4091	

Select a subnet above

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While creating subnet name tag as “Sansbound\_Mumbai\_Public\_subnet”, select VPC as Sansbound\_VPC\_Mumbai , Availability Zone as “1b” (Optional) and IPV4 CIDR Block as 10.0.2.0/24 subnet then click “Yes, create”.

Create Subnet

Use the CIDR format to specify your subnet's IP address block (e.g., 10.0.0.0/24). Note that block sizes must be between a /16 netmask and /28 netmask. Also, note that a subnet can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.

Name tag

Sansbound\_Mumbai\_Public\_subnet

VPC

lpc-09fe2261 | Sansbound\_VPC\_Mumbai

VPC CIDRs

CIDR	Status	Status Reason
10.0.0.0/16	associated	

Availability Zone

ap-south-1b

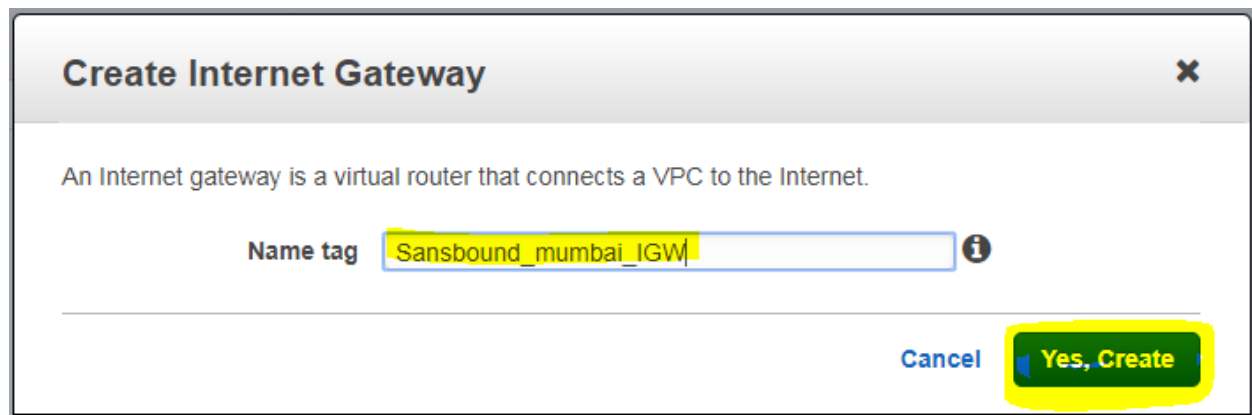
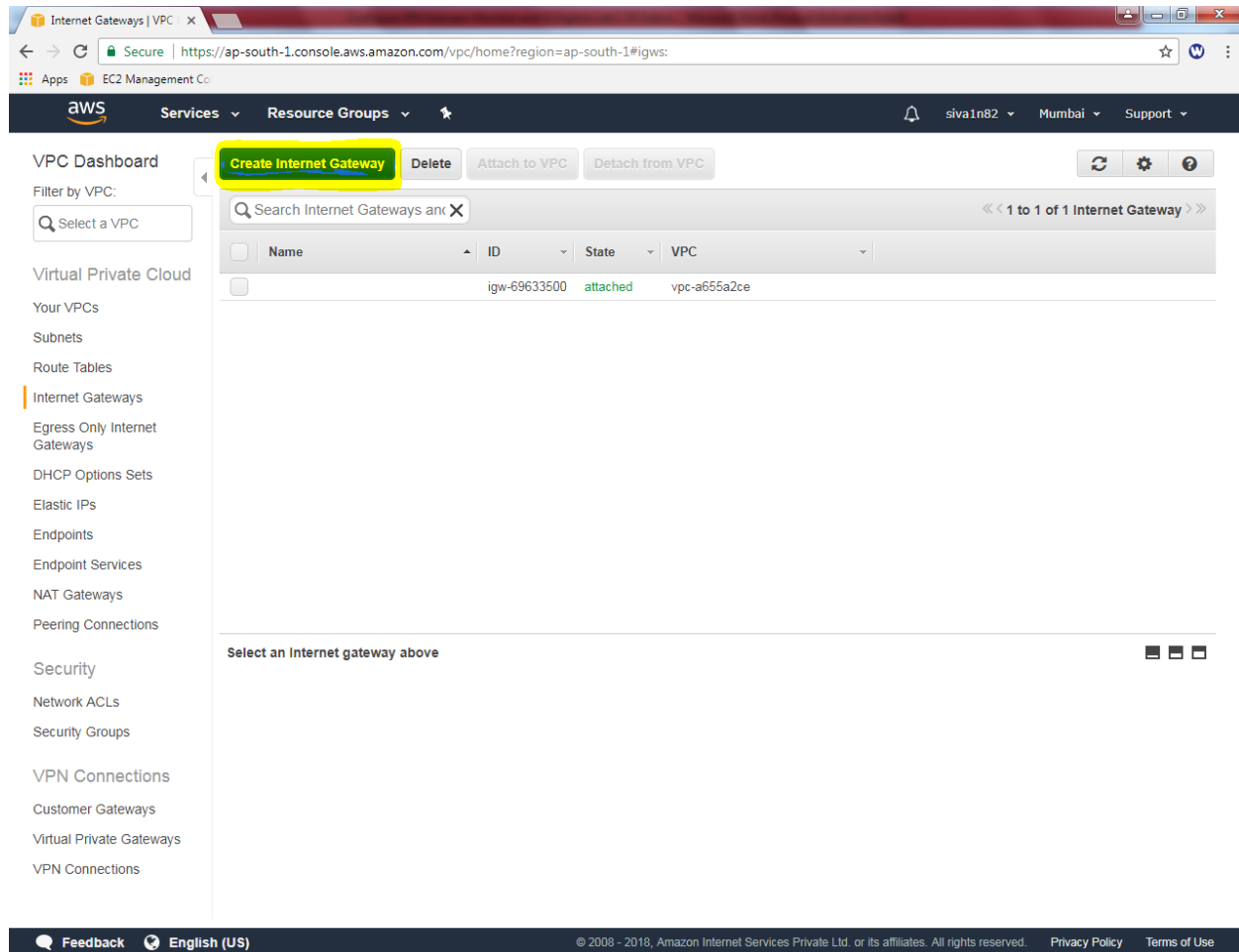
IPv4 CIDR block

10.0.2.0/24

Cancel

Yes, Create

Then we need to configure Internet gateway for the VPC. Click Internet gateway and click “Create Internet Gateway” for Mumbai VPC.



Click “Yes create”.

We can able to see that Sansbound\_mumbai\_IGW in detached mode. We need to attach to VPC.

Click “Attach to VPC”.

Internet Gateways | VPC

Secure | <https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#igws>

Apps EC2 Management Co

aws Services Resource Groups

Internet Gateways | VPC

Filter by VPC: Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Peering Connections

Security

Network ACLs

Security Groups

VPN Connections

Customer Gateways

Virtual Private Gateways

VPN Connections

Create Internet Gateway Delete Attach to VPC Detach from VPC

Search Internet Gateways and X

<< 1 to 2 of 2 Internet Gateways >>

Name	ID	State	VPC
Sansbound_mumbai_IGW	igw-2d587744	detached	
	igw-69633500	attached	vpc-a655a2ce

igw-2d587744 | Sansbound\_mumbai\_IGW

Summary Tags

ID: igw-2d587744 | Sansbound\_mumbai\_IGW

State: detached

Attached VPC ID:

Attachment state:

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Attach to VPC

Attach an Internet gateway to a VPC to enable communication with the Internet.

VPC vpc-09fe2261 | Sansbound\_VPC\_Mumbai

Cancel Yes, Attach

Click “Yes, Attach”.

Rename the Mumbai route table as “Sansbound\_public\_route”. Then click “route” tab,

Click “Edit”.



The screenshot shows the AWS Management Console interface for the VPC Dashboard. The left sidebar lists various services, with 'Route Tables' highlighted. The main content area displays a list of Route Tables. The first table, 'Sansbound\_public\_route' (ID: rtb-7d6de015), is selected. Below the list, the 'Routes' tab is active, showing a single route for destination 10.0.0.0/16 with a local target and an active status. The 'Edit' button is highlighted with a yellow box.

**VPC Dashboard**

Filter by VPC:

Virtual Private Cloud

- Your VPCs
- Subnets
- Route Tables**
- Internet Gateways
- Egress Only Internet Gateways
- DHCP Options Sets
- Elastic IPs
- Endpoints
- Endpoint Services
- NAT Gateways
- Peering Connections

Security

- Network ACLs
- Security Groups

VPN Connections

- Customer Gateways
- Virtual Private Gateways
- VPN Connections

**Route Tables**

Search Route Tables and their VPCs

Name	Route Table ID	Explicitly Associated Subnets	Main	VPC
<input checked="" type="checkbox"/> Sansbound_public_route	rtb-7d6de015	0 Subnets	Yes	vpc-09fe2261   Sansbound_VPC...
<input type="checkbox"/>	rtb-91b209f9	0 Subnets	No	vpc-a655a2ce
<input type="checkbox"/>	rtb-3dab7555	0 Subnets	Yes	vpc-a655a2ce

**rtb-7d6de015**

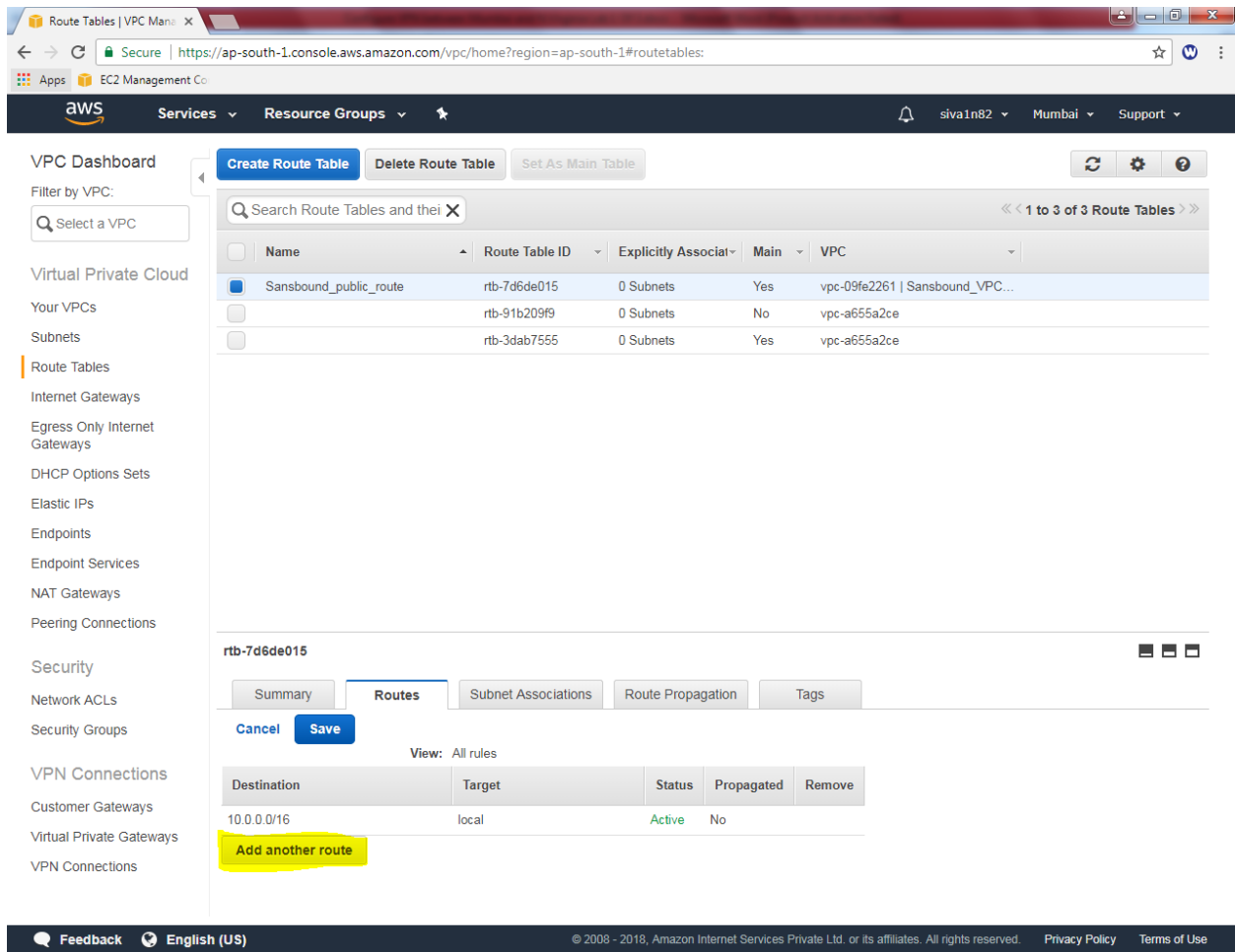
Summary Routes Subnet Associations Route Propagation Tags

**Edit**

View: All rules

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No

Click “Add another route”.



The screenshot displays the AWS Management Console interface for the VPC Dashboard. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar lists various VPC services, with 'Route Tables' highlighted. The main content area shows a list of Route Tables. Below this, the configuration for the selected Route Table 'rtb-7d6de015' is shown, including tabs for Summary, Routes, Subnet Associations, Route Propagation, and Tags. The 'Routes' tab is active, displaying a table with one route: Destination '10.0.0.0/16', Target 'local', Status 'Active', and Propagated 'No'. A yellow highlight is placed over the 'Add another route' button.

**VPC Dashboard**

Filter by VPC:

**Virtual Private Cloud**

- Your VPCs
- Subnets
- Route Tables**
- Internet Gateways
- Egress Only Internet Gateways
- DHCP Options Sets
- Elastic IPs
- Endpoints
- Endpoint Services
- NAT Gateways
- Peering Connections

**Security**

- Network ACLs
- Security Groups

**VPN Connections**

- Customer Gateways
- Virtual Private Gateways
- VPN Connections

**Route Tables**

Search Route Tables and their VPCs:

1 to 3 of 3 Route Tables

Name	Route Table ID	Explicitly Associated Subnets	Main	VPC
<input checked="" type="checkbox"/> Sansbound_public_route	rtb-7d6de015	0 Subnets	Yes	vpc-09fe2261   Sansbound_VPC...
<input type="checkbox"/>	rtb-91b209f9	0 Subnets	No	vpc-a655a2ce
<input type="checkbox"/>	rtb-3dab7555	0 Subnets	Yes	vpc-a655a2ce

**rtb-7d6de015**

Summary Routes Subnet Associations Route Propagation Tags

Cancel Save

View: All rules

Destination	Target	Status	Propagated	Remove
10.0.0.0/16	local	Active	No	

Add another route

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Add default route 0.0.0.0/0 and select “igw-\*” as target. Click “save”.

The screenshot shows the AWS VPC console interface. On the left is the 'VPC Dashboard' sidebar with various navigation links. The main content area displays a list of route tables. Below this, the 'Routes' tab for route table 'rtb-7d6de015' is active. It shows a table with existing routes and a form to add a new one. The 'Save' button is highlighted with a green box.

Name	Route Table ID	Explicitly Associat	Main	VPC
Sansbound_public_route	rtb-7d6de015	0 Subnets	Yes	vpc-09fe2261   Sansbound_VPC...
	rtb-91b209f9	0 Subnets	No	vpc-a655a2ce
	rtb-3dab7555	0 Subnets	Yes	vpc-a655a2ce

Destination	Target	Status	Propagated	Remove
10.0.0.0/16	local	Active	No	
0.0.0.0/0	igw-2d587744	No		

Click “Subnet associatons” tab click “Edit”.

The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar lists various AWS services under categories like Virtual Private Cloud, Security, and VPN Connections. The main content area displays the 'VPC Dashboard' with buttons for 'Create Route Table', 'Delete Route Table', and 'Set As Main Table'. Below these is a search bar and a table of route tables. The table has columns for Name, Route Table ID, Explicitly Associated, Main, and VPC. The first row is selected, showing 'Sansbound\_public\_route' with ID 'rtb-7d6de015'. Below the table, the details for 'rtb-7d6de015' are shown, including tabs for 'Summary', 'Routes', 'Subnet Associations', 'Route Propagation', and 'Tags'. The 'Subnet Associations' tab is active, showing a message: 'You do not have any subnet associations. The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:'. Below this message is a table with columns 'Subnet', 'IPv4 CIDR', and 'IPv6 CIDR'. The first row shows 'subnet-07d1c44a | Sansbound\_Mumbai\_Public\_subnet' with IPv4 CIDR '10.0.2.0/24' and IPv6 CIDR '-'. The bottom of the console shows a footer with 'Feedback', 'English (US)', and copyright information.

Route Tables | VPC Management

Secure | <https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#routetables>

Apps EC2 Management Console

aws Services Resource Groups

silva1n82 Mumbai Support

VPC Dashboard

Filter by VPC:

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Peering Connections

Security

Network ACLs

Security Groups

VPN Connections

Customer Gateways

Virtual Private Gateways

VPN Connections

Create Route Table Delete Route Table Set As Main Table

Search Route Tables and their VPCs

1 to 3 of 3 Route Tables

Name	Route Table ID	Explicitly Associated	Main	VPC
<input checked="" type="checkbox"/> Sansbound_public_route	rtb-7d6de015	0 Subnets	Yes	vpc-09fe2261   Sansbound_VPC...
<input type="checkbox"/>	rtb-91b209f9	0 Subnets	No	vpc-a655a2ce
<input type="checkbox"/>	rtb-3dab7555	0 Subnets	Yes	vpc-a655a2ce

rtb-7d6de015

Summary Routes Subnet Associations Route Propagation Tags

Edit

Subnet	IPv4 CIDR	IPv6 CIDR
You do not have any subnet associations.		
The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:		
Subnet	IPv4 CIDR	IPv6 CIDR
subnet-07d1c44a   Sansbound_Mumbai_Public_subnet	10.0.2.0/24	-

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Click check box “Sansbound\_Mumbai\_public\_subnet” and click “save”.

The screenshot displays the AWS VPC Dashboard for the region 'ap-south-1'. The left sidebar shows the navigation menu with categories like Virtual Private Cloud, Security, and VPN Connections. The main content area shows a list of Route Tables. The 'Sansbound\_public\_route' table (ID: rtb-7d6de015) is selected. Below the list, the 'Subnet Associations' tab is active, showing a table with one association: 'subnet-07d1c44a | Sansbound\_Mumbai\_Public\_subnet' with IPv4 CIDR '10.0.2.0/24' and 'Main' as the current route table.

**Route Tables List:**

Name	Route Table ID	Explicitly Associat	Main	VPC
Sansbound_public_route	rtb-7d6de015	0 Subnets	Yes	vpc-09fe2261   Sansbound_VPC...
	rtb-91b209f9	0 Subnets	No	vpc-a655a2ce
	rtb-3dab7555	0 Subnets	Yes	vpc-a655a2ce

**Subnet Associations for rtb-7d6de015:**

Associate	Subnet	IPv4 CIDR	IPv6 CIDR	Current Route Table
<input checked="" type="checkbox"/>	subnet-07d1c44a   Sansbound_Mumbai_Public_subnet	10.0.2.0/24	-	Main