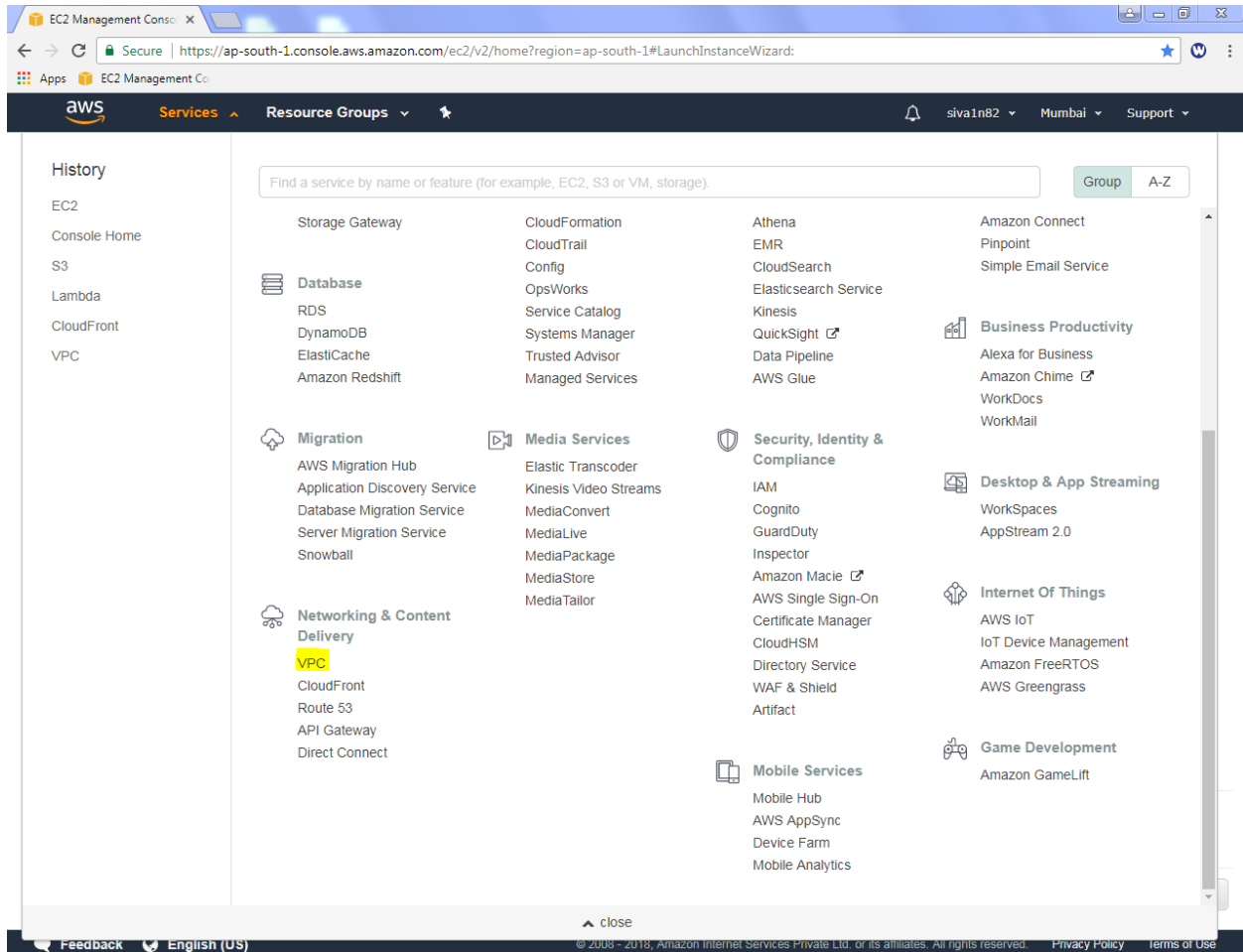


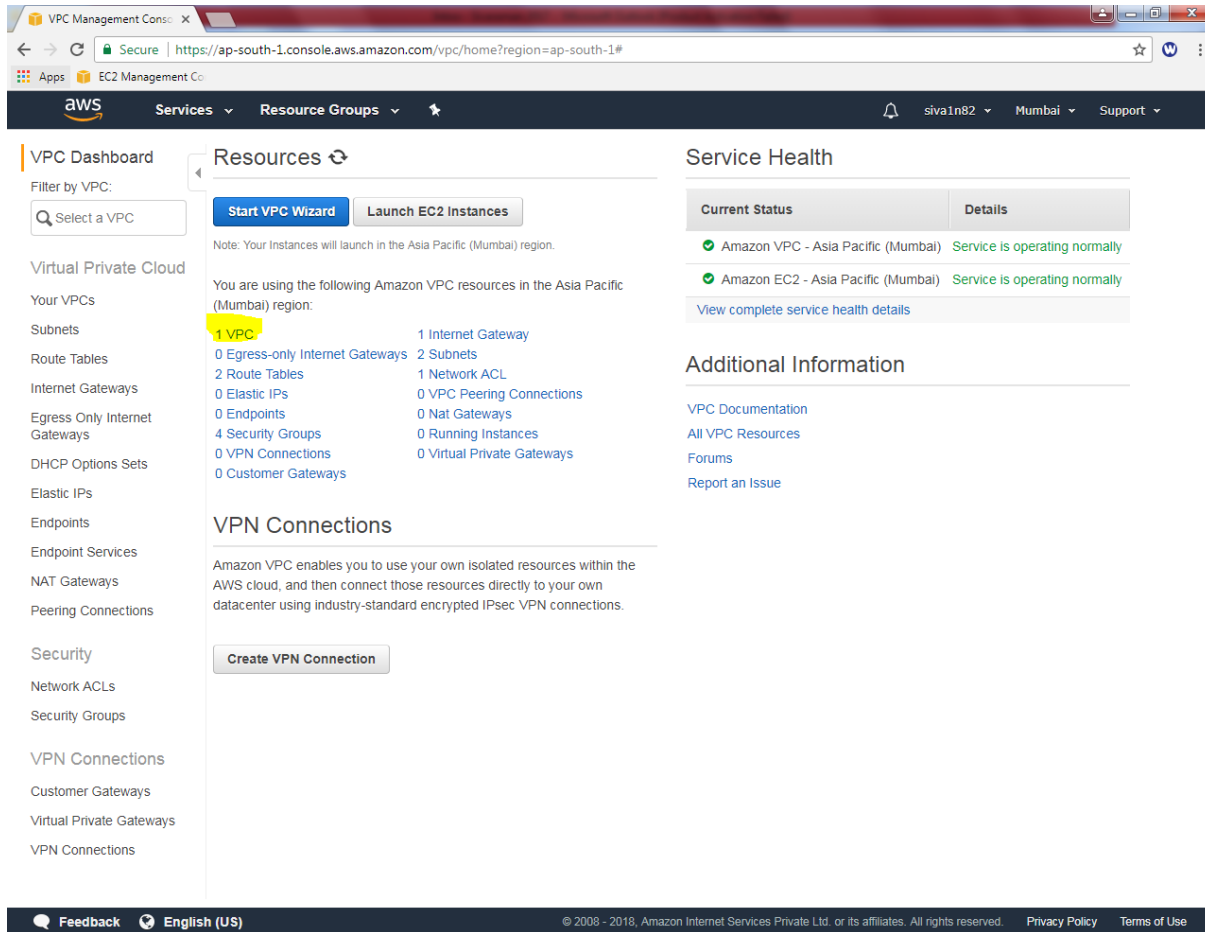
Lab17

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”.

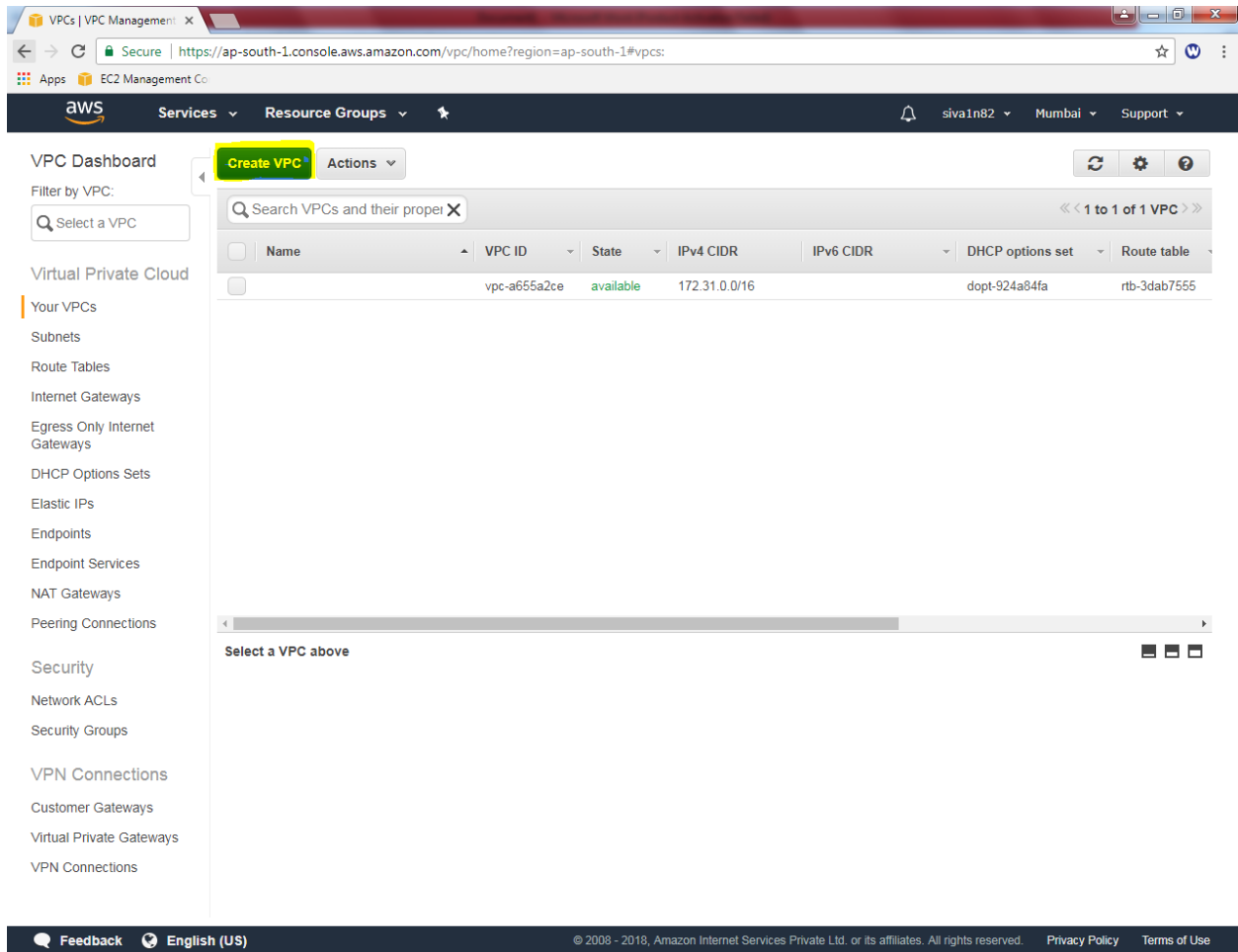


Click “1 VPC”.



The screenshot shows the AWS VPC Management Console interface. The left sidebar contains a navigation menu with categories like Virtual Private Cloud, Security, and VPN Connections. The main content area is titled 'Resources' and displays a list of resources in the Asia Pacific (Mumbai) region. The '1 VPC' resource is highlighted in yellow. Other resources listed include 0 Egress-only Internet Gateways, 2 Subnets, 2 Route Tables, 1 Network ACL, 0 Elastic IPs, 0 VPC Peering Connections, 0 Endpoints, 0 Nat Gateways, 4 Security Groups, 0 Running Instances, 0 VPN Connections, and 0 Virtual Private Gateways. The 'VPN Connections' section is also visible, explaining that Amazon VPC enables users to use their own isolated resources within the AWS cloud and connect them to their own datacenter using industry-standard encrypted IPsec VPN connections. A 'Create VPN Connection' button is present. The right sidebar shows 'Service Health' for Amazon VPC and Amazon EC2, both indicating 'Service is operating normally'. Below that, there is an 'Additional Information' section with links to VPC Documentation, All VPC Resources, Forums, and Report an Issue. The footer includes a Feedback link, English (US) language selection, and copyright information for 2008-2018 Amazon Internet Services Private Ltd.

Click “Create VPC”.



The screenshot shows the AWS VPC Dashboard in a web browser. The browser address bar displays the URL: <https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#vpcs:>. The dashboard header includes the AWS logo, navigation tabs for Services, Resource Groups, and a user profile section with the name siva1n82 and location Mumbai. The left sidebar lists various VPC-related services, with 'Your VPCs' highlighted. The main content area features a 'Create VPC' button (highlighted in yellow) and an 'Actions' dropdown. Below this is a search bar and a table of existing VPCs. The table has columns for Name, VPC ID, State, IPv4 CIDR, IPv6 CIDR, DHCP options set, and Route table. One VPC is listed: vpc-a655a2ce, available, 172.31.0.0/16, dopt-924a84fa, and rtb-3dab7555. Below the table is a scrollable area with the text 'Select a VPC above'.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP options set	Route table
	vpc-a655a2ce	available	172.31.0.0/16		dopt-924a84fa	rtb-3dab7555

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

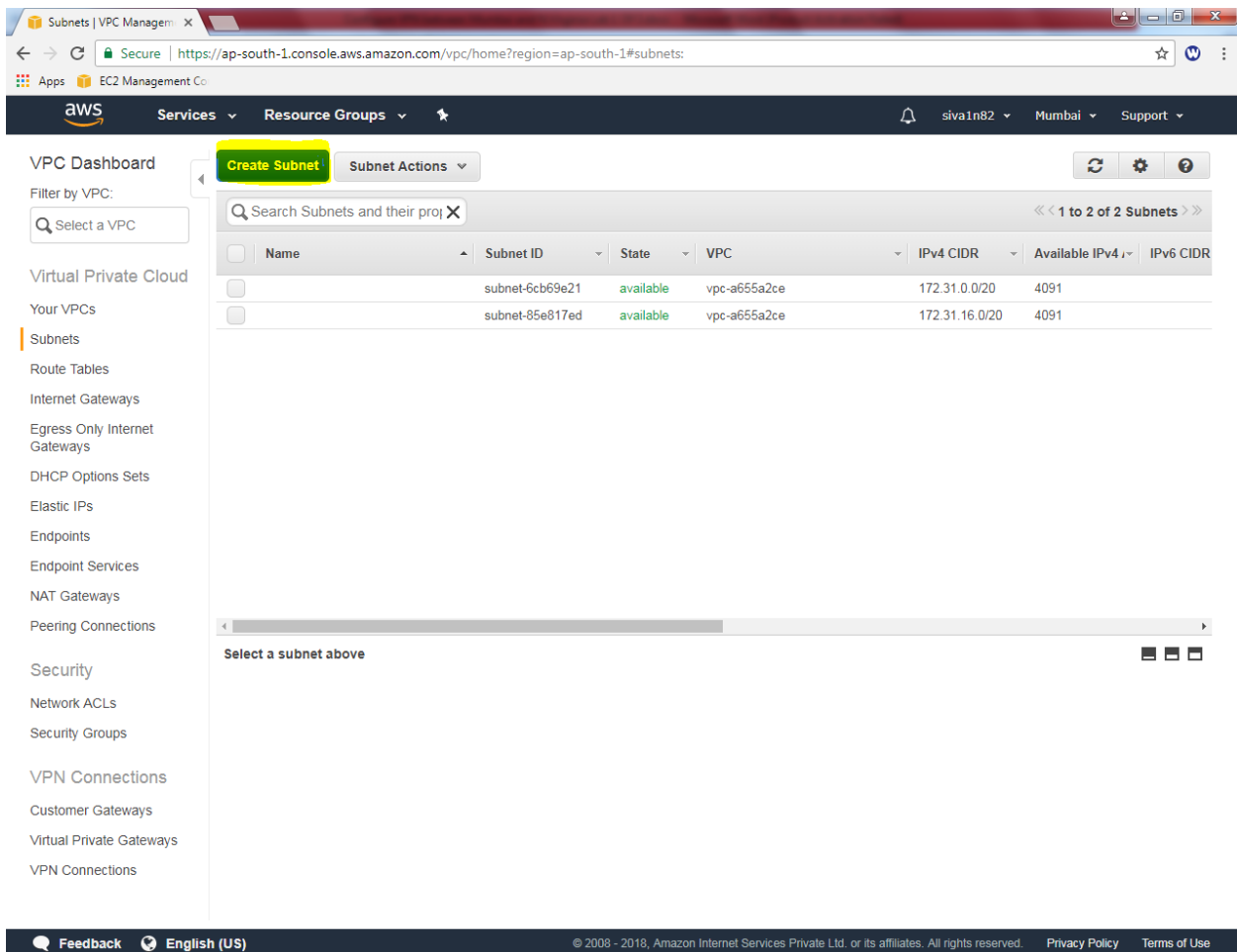
IPv4 CIDR block*

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

Tenancy

Cancel

Then click subnet, click “Create subnet”.



The screenshot shows the AWS Management Console interface. The left-hand navigation pane is expanded to the 'Subnets' section. The main content area displays the 'VPC Dashboard' for the selected VPC. At the top of the dashboard, the 'Create Subnet' button is highlighted with a yellow box. Below this, there is a search bar and a table listing existing subnets. The table has columns for Name, Subnet ID, State, VPC, IPv4 CIDR, Available IPv4, and IPv6 CIDR. Two subnets are listed, both in an 'available' state. Below the table, there is a section titled 'Select a subnet above' with three small icons.

Name	Subnet ID	State	VPC	IPv4 CIDR	Available IPv4	IPv6 CIDR
	subnet-6cb69e21	available	vpc-a655a2ce	172.31.0.0/20	4091	
	subnet-85e817ed	available	vpc-a655a2ce	172.31.16.0/20	4091	

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

vpc-09fe2261 Sansbound_VPC_Mumbai

VPC CIDRs

CIDR	Status	Status Reason
10.0.0.0/16	associated	

Availability Zone

ap-south-1b

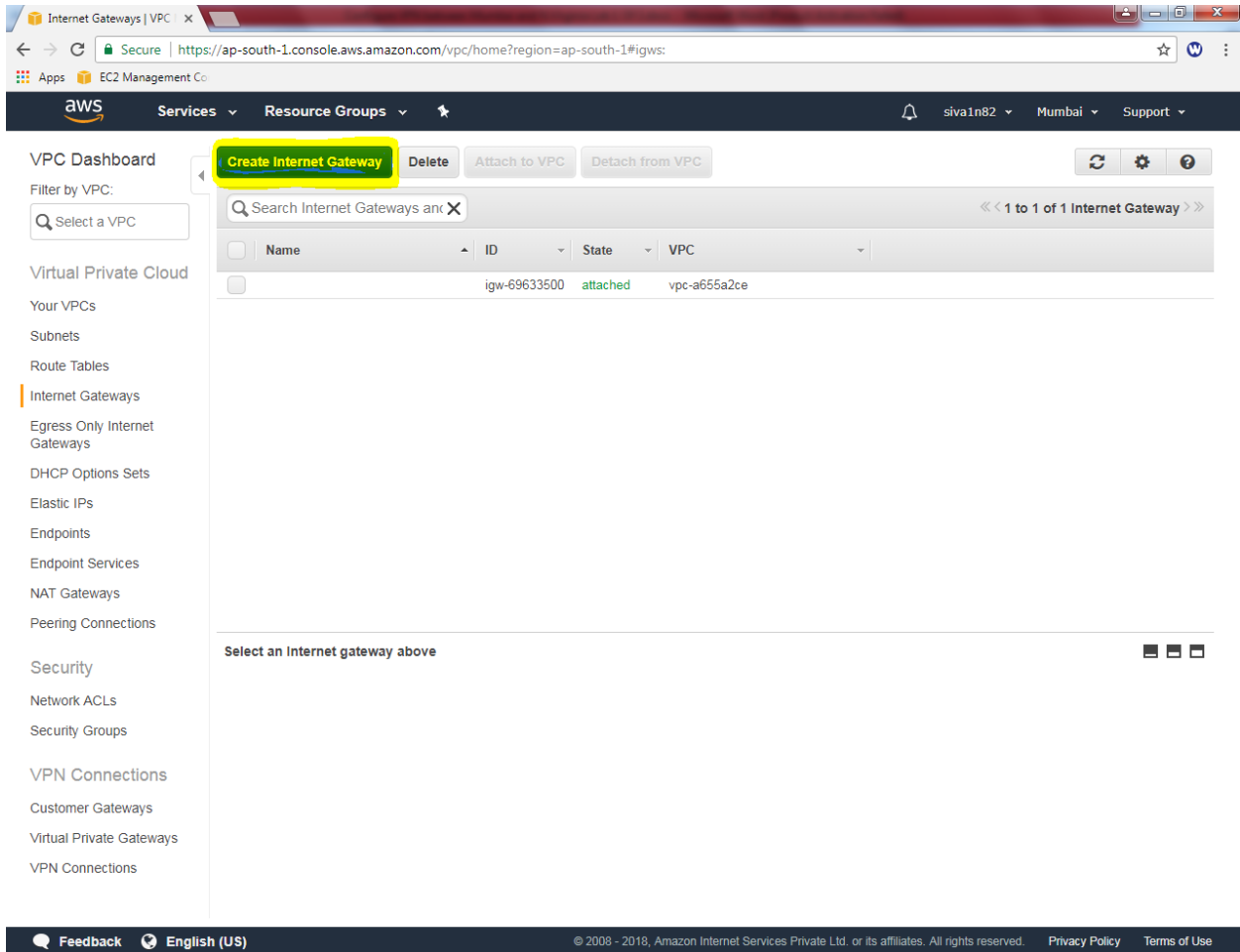
IPv4 CIDR block

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.



The screenshot displays the AWS Management Console interface for the 'Internet Gateways' page. The top navigation bar shows the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar contains a navigation menu with categories like 'Virtual Private Cloud', 'Security', and 'VPN Connections'. Under 'Virtual Private Cloud', 'Internet Gateways' is selected. The main content area shows a 'VPC Dashboard' with a 'Filter by VPC' dropdown and a 'Create Internet Gateway' button highlighted in yellow. Below this, there is a search bar and a table listing Internet Gateways. The table has columns for Name, ID, State, and VPC. One gateway is listed with ID 'igw-69633500' and State 'attached'. At the bottom, there is a message 'Select an Internet gateway above'.

Name	ID	State	VPC
	igw-69633500	attached	vpc-a655a2ce

Create Internet Gateway ✕

An Internet gateway is a virtual router that connects a VPC to the Internet.

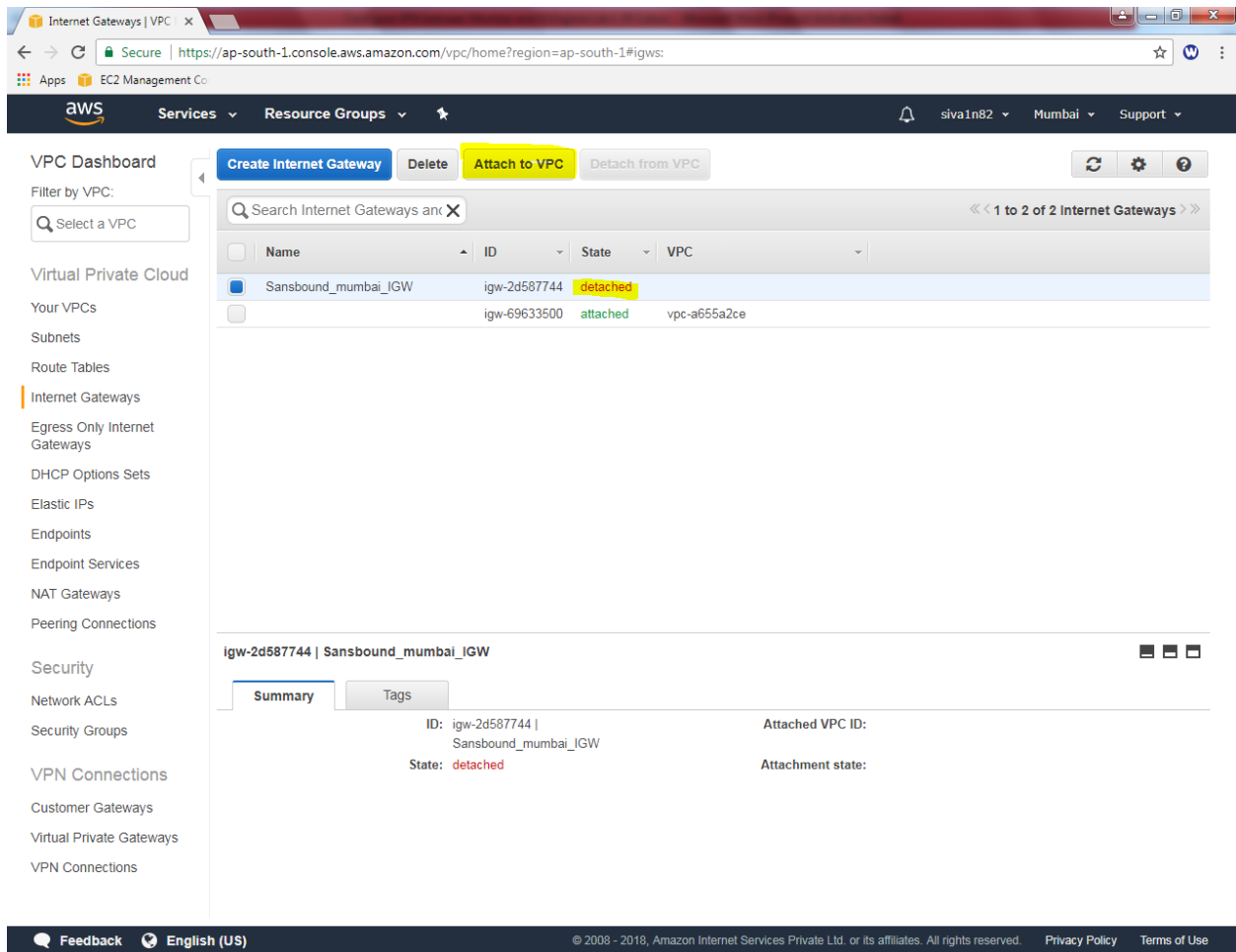
Name tag i

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

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”.



The screenshot shows the AWS Management Console interface for Internet Gateways. The left sidebar contains navigation links for VPC Dashboard, Virtual Private Cloud, and various network services. The main content area displays a table of Internet Gateways. The first gateway, 'Sansbound_mumbai_IGW' (ID: igw-2d587744), is highlighted in blue and has a yellow 'detached' state label. The 'Attach to VPC' button is highlighted in yellow. Below the table, the details for the selected gateway are shown, including its ID, name, and state (detached).

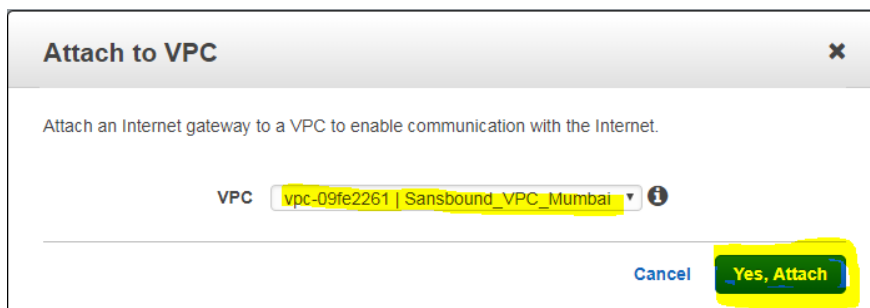
Name	ID	State	VPC
Sansbound_mumbai_IGW	igw-2d587744	detached	
	igw-69633500	attached	vpc-a655a2ce

igw-2d587744 | Sansbound_mumbai_IGW

Summary | Tags

ID: igw-2d587744 | Sansbound_mumbai_IGW
State: detached

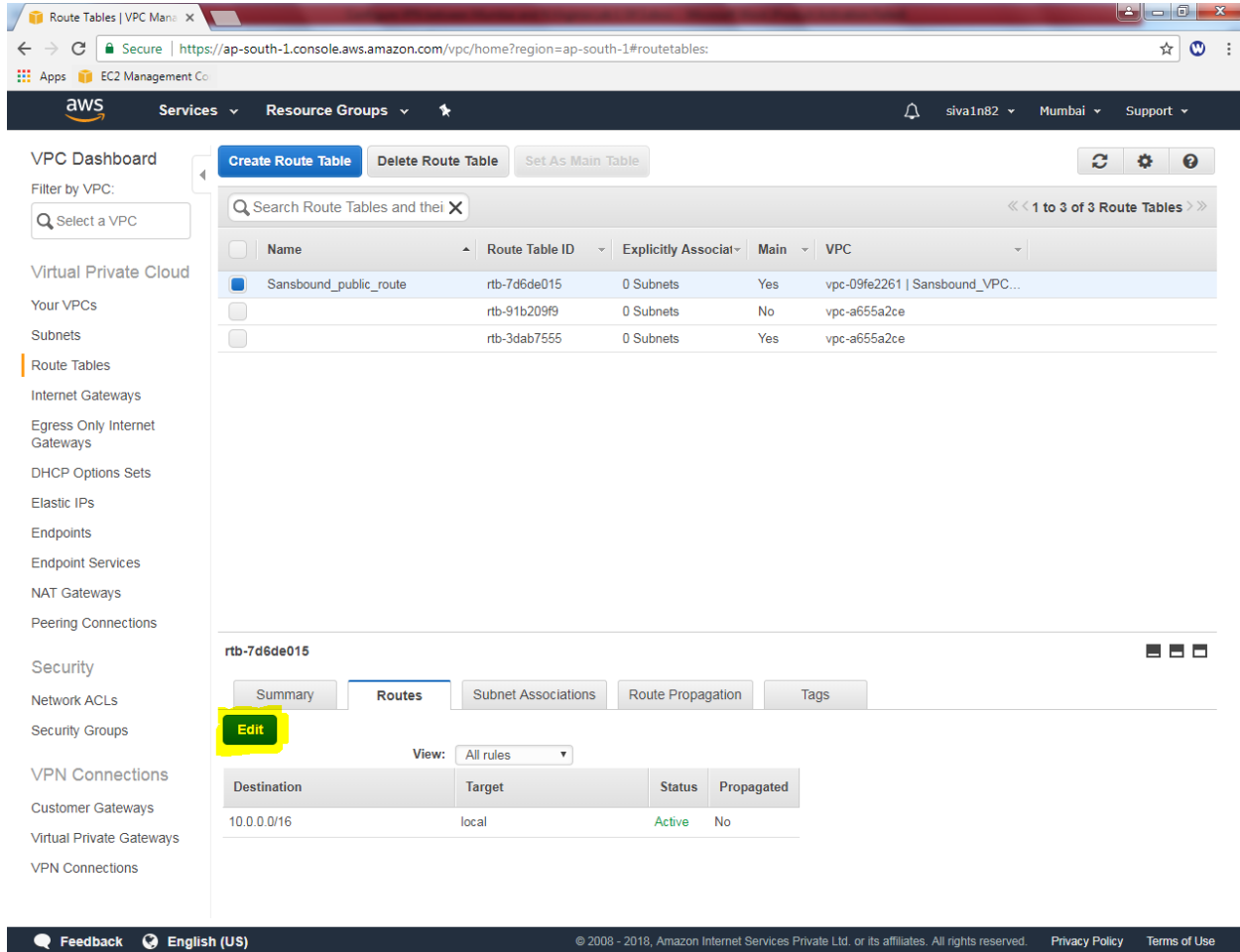
Attached VPC ID:
Attachment state:



The screenshot shows the 'Attach to VPC' dialog box. The dialog has a title bar with a close button. The main text says 'Attach an Internet gateway to a VPC to enable communication with the Internet.' Below this, there is a 'VPC' dropdown menu with the selected value 'vpc-09fe2261 | Sansbound_VPC_Mumbai'. At the bottom right, there are two buttons: 'Cancel' and 'Yes, Attach', with the latter highlighted in yellow.

Click “Yes, Attach”.

Rename the Mumbai route table as “Sansbound_public_route”. Then click “route” tab,
Click “Edit”.

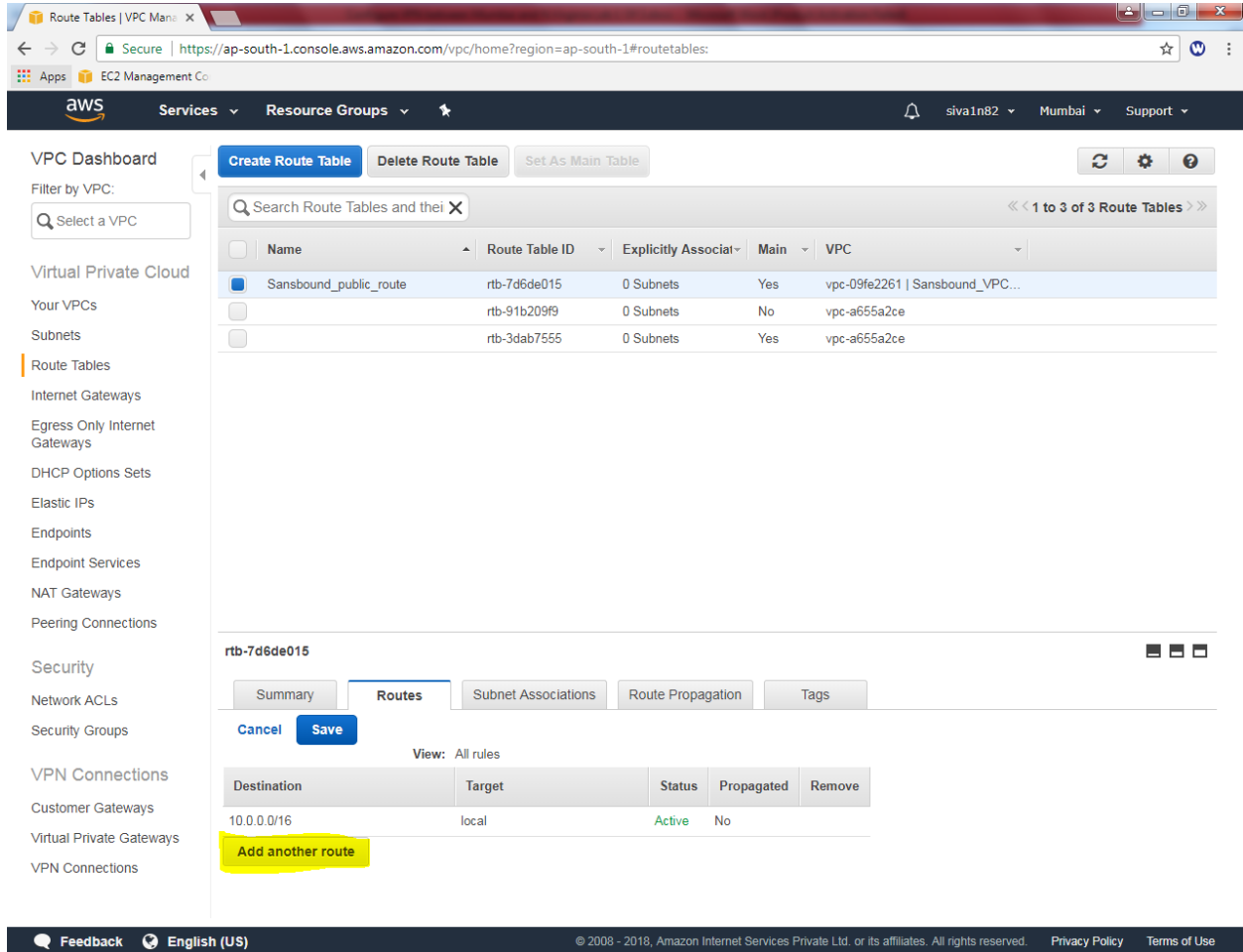


The screenshot shows the AWS Management Console interface. The left sidebar contains the VPC Dashboard menu with options like Virtual Private Cloud, Your VPCs, Subnets, Route Tables, Internet Gateways, Egress Only Internet Gateways, DHCP Options Sets, Elastic IPs, Endpoints, Endpoint Services, NAT Gateways, Peering Connections, Security, Network ACLs, Security Groups, VPN Connections, Customer Gateways, Virtual Private Gateways, and VPN Connections. The main content area displays the Route Tables list for the Mumbai region. The table has columns for Name, Route Table ID, Explicitly Associated, Main, and VPC. The route table 'Sansbound_public_route' (ID: rtb-7d6de015) is selected. Below the table, the 'Routes' tab is active, showing a single route with Destination 10.0.0.0/16, Target local, Status Active, and Propagated No. The 'Edit' button is highlighted in yellow.

Name	Route Table ID	Explicitly Associated	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
10.0.0.0/16	local	Active	No

Click “Add another route”.



The screenshot shows the AWS Management Console interface for the VPC Dashboard. The left sidebar contains navigation links for various AWS services. The main content area displays a table of route tables. The selected route table, 'rtb-7d6de015', is shown in detail with its routes. The 'Add another route' button is highlighted in yellow.

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

Cancel Save

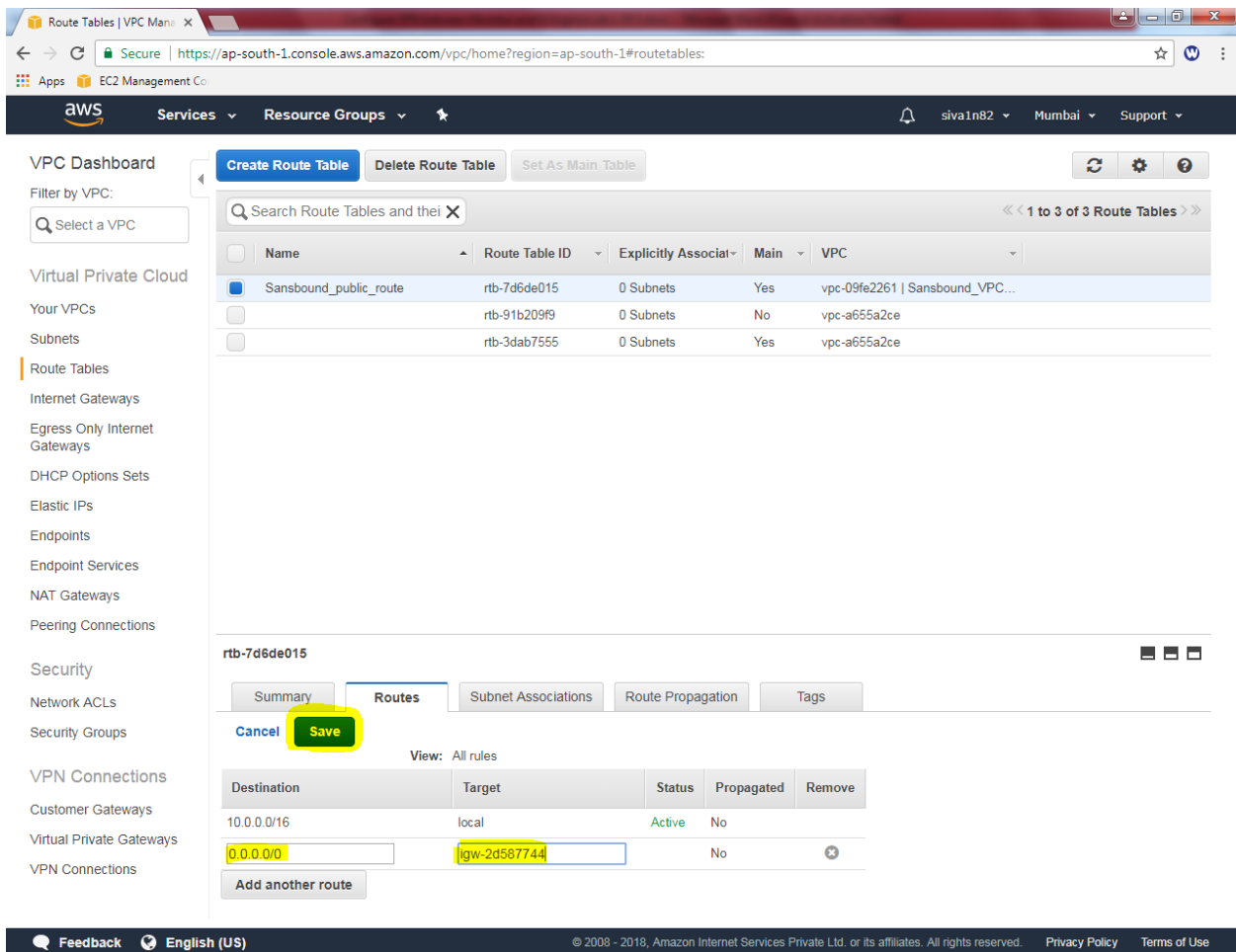
View: All rules

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".

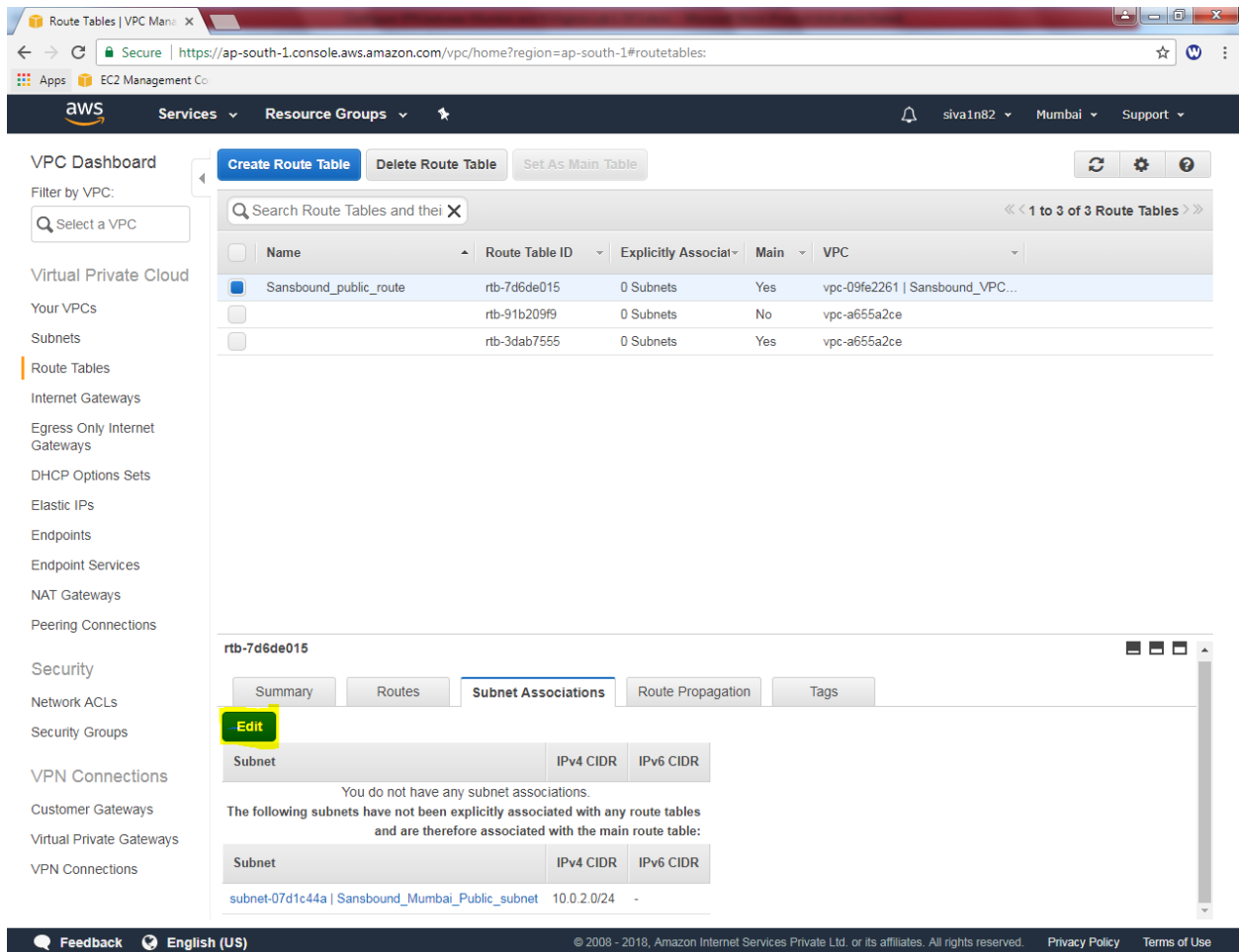


The screenshot shows the AWS Management Console interface for managing Route Tables. The left sidebar contains navigation links for VPC Dashboard, Virtual Private Cloud, Security, VPN Connections, and more. The main content area displays a list of Route Tables, with 'Sansbound_public_route' (rtb-7d6de015) selected. Below the list, the 'Routes' tab is active, showing a table of routes. A new route is being added with the destination '0.0.0.0/0' and target 'igw-2d587744'. The 'Save' button is highlighted in yellow.

Name	Route Table ID	Explicitly Associat	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

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

Click “Subnet associations” tab click “Edit”.

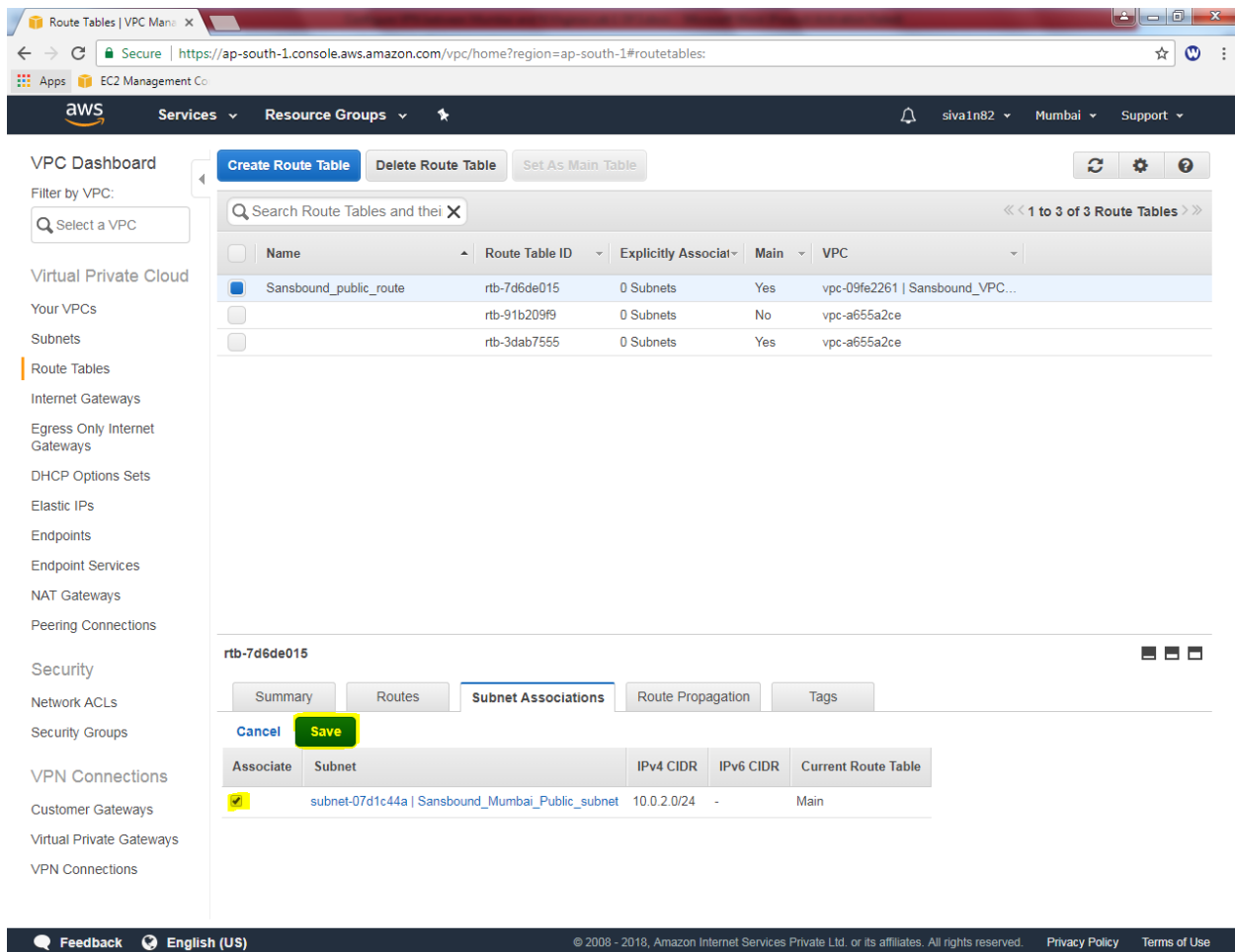


The screenshot shows the AWS Management Console interface for Route Tables. The left sidebar contains navigation links for VPC Dashboard, Virtual Private Cloud, and various network services. The main content area displays a list of route tables. The selected route table, `rtb-7d6de015`, is shown in detail with the **Subnet Associations** tab active. The **Edit** button is highlighted in yellow.

Name	Route Table ID	Explicitly Associat	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

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	-

Click check box “Sansbound_Mumbai_public_subnet” and click “save”.



The screenshot shows the AWS Management Console interface for the VPC Dashboard. The left sidebar lists various VPC services, with 'Route Tables' highlighted. The main content area shows a list of route tables. The 'Sansbound_public_route' (rtb-7d6de015) is selected, and its 'Subnet Associations' tab is active. Below the tab, a table shows the association between the route table and the 'Sansbound_Mumbai_Public_subnet' (subnet-07d1c44a).

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

At the bottom of the console, there is a footer with 'Feedback', 'English (US)', and copyright information for Amazon Internet Services Private Ltd.