

Introduction

As implied by the name, a **public subnet** will hold resources that require ingress and/or egress to the public internet. A common use case for this is a DNS server, or a load balancer sitting in front of front-end web servers or web applications.

In this lab step, you will create a public subnet in your VPC.

Instructions

1. In the **VPC Dashboard**, click **Subnets** in the left navigation pane:

A rectangular button with a light gray border and the word "Subnets" in orange text.

The Subnets page lists all previously created subnets.

2. Click **Create subnet**:

A solid orange rectangular button with the text "Create subnet" in white.

3. Configure the following subnet details:

- **VPC ID:** Select **cloudacademy-labs**
- **Subnet name:** Enter *Public-A* (This is the name for your subnet. A tag with a key of Name and the value "Public-A" is created)
- **Availability Zone:** Select **us-west-2a** from the drop-down menu
- **CIDR block:** Enter *10.0.20.0/24*

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

Public-A

The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

US West (Oregon) / us-west-2a ▼

IPv4 CIDR block [Info](#)

🔍 10.0.20.0/24 ✕

4. Click **Create subnet**:

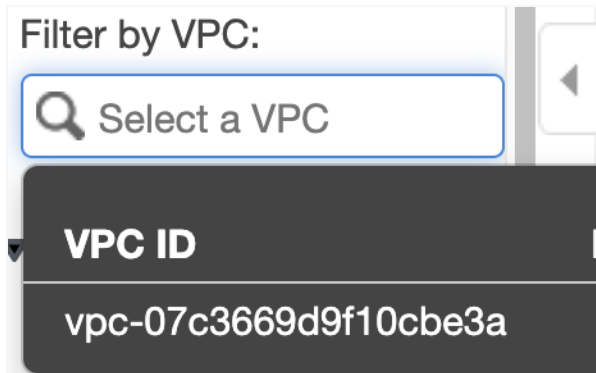
Create subnet

The new subnet will be deployed into the selected VPC, and into the selected Availability Zone.

Next, you will need to set up the route table.

A route table contains a set of rules, called routes, that are used to determine where network traffic is directed. Each route in a table specifies a destination CIDR and a target (for example, traffic destined for 172.16.0.0/12 is targeted for the virtual private gateway). If a subnet has a route with the destination (0.0.0.0/0) and Internet Gateway as the target, the subnet is known as a public subnet. You can create a custom route table for your VPC using the Amazon VPC console.

5. In the left-hand navigation pane, click the **Filter by VPC** field and select the **cloudacademy-labs** VPC from the drop-down:



Note: You may need to refresh your browser tab to be able to select the **cloudacademy-labs** VPC from the **Filter by VPC** field.

6. In the left navigation pane, click **Route Tables**:

Route Tables

7. Click **Create route table**:

Create route table

8. Configure the following route table settings:

- **Name:** Enter *PublicRouteTable*

- **VPC:** Select the **cloudacademy-labs** VPC from the drop-down menu

Route table settings

Name - *optional*
Create a tag with a key of 'Name' and a value that you specify.

PublicRouteTable

VPC
The VPC to use for this route table.

vpc-0b8043e3c8f33442e (cloudacademy-labs) ▼

9. Scroll to the bottom of the page and click **Create route table**:

Create route table

10. On the route details page, switch to the **Routes** tab and click **Edit routes**:

Edit routes

11. Click **Add route**:

Add route

12. Configure the following route settings:

- **Destination:** Enter *0.0.0.0/0*
- **Target:** Select **Internet Gateway**, then **labs-gw**

13. Click **Save changes**:

An orange rectangular button with the text "Save changes" in white.

Up next, you will change the default route table of the public subnet to include the new route table.

14. In the left-hand navigation pane, click **Subnets**.

15. Select the **Public-A** subnet and click the **Route table** tab

16. Click the **Edit route table association** button:

A rectangular button with a black border and the text "Edit route table association" in black.

17. Select **PublicRouteTable** from the **Route table ID** drop-down menu and confirm the following routes:

Routes (2)	
<input type="text" value="Filter routes"/>	
Destination	Target
10.0.0.0/16	local
0.0.0.0/0	igw-0629aff6204c420b0

Note: The internet gateway under your target will differ from the ID above.

18. Click **Save**:



This subnet will require a route to the internet, so the associated route table has now been configured to use **PublicRouteTable** to determine traffic rules.

Summary

In this lab, you created a public subnet in your VPC and associated it with a route table with access to the public internet.

VALIDATION CHECKS

1 Checks

Check again 



Connected Internet Gateway to the Route Table

Connected an internet gateway to a non-default VPC route table

Networking for AWS