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

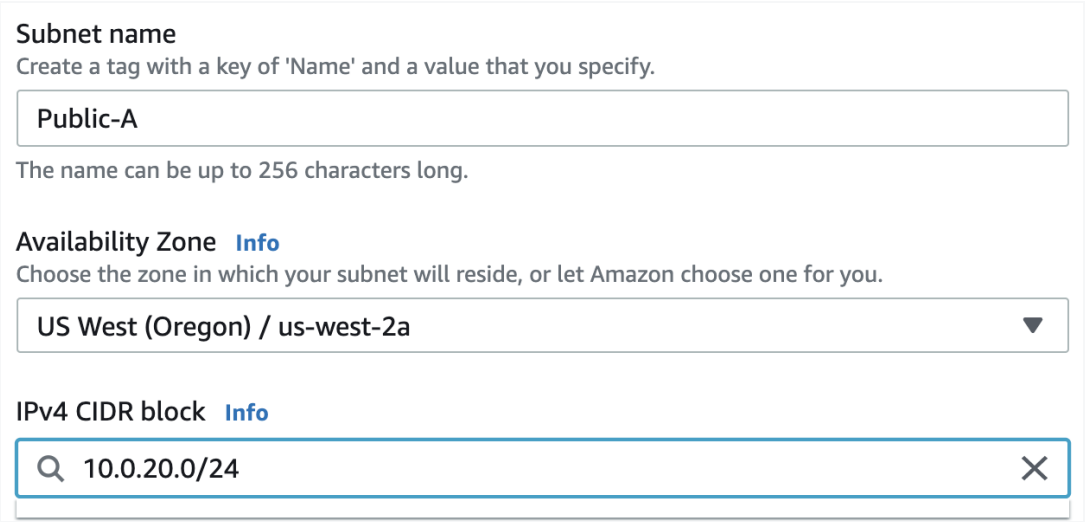
1. In the **VPC Dashboard**, click **Subnets** in the left navigation pane:

The Subnets page lists all previously created subnets.

2. Click **Create subnet**:

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*



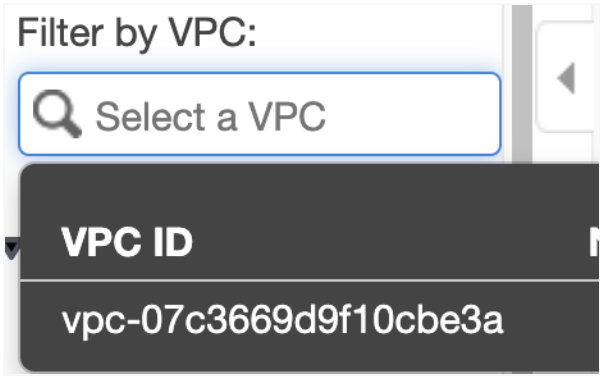
4. Click **Create subnet**:

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.

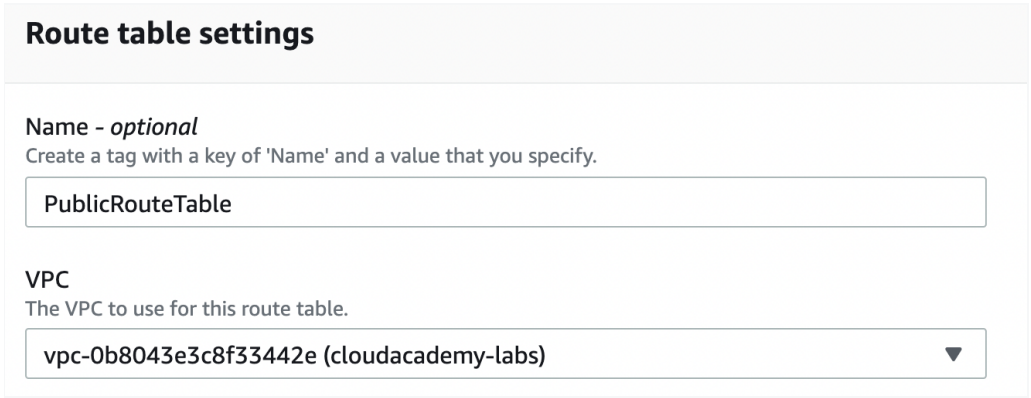
6. In the left navigation pane, click **Route Tables**:

7. Click **Create route table**:

8. Configure the following route table settings:

- **Name**: Enter *PublicRouteTable*

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



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

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

11. Click **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**:

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:

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

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