Project 6: Build Amazon VPC with Public and Private Subnets

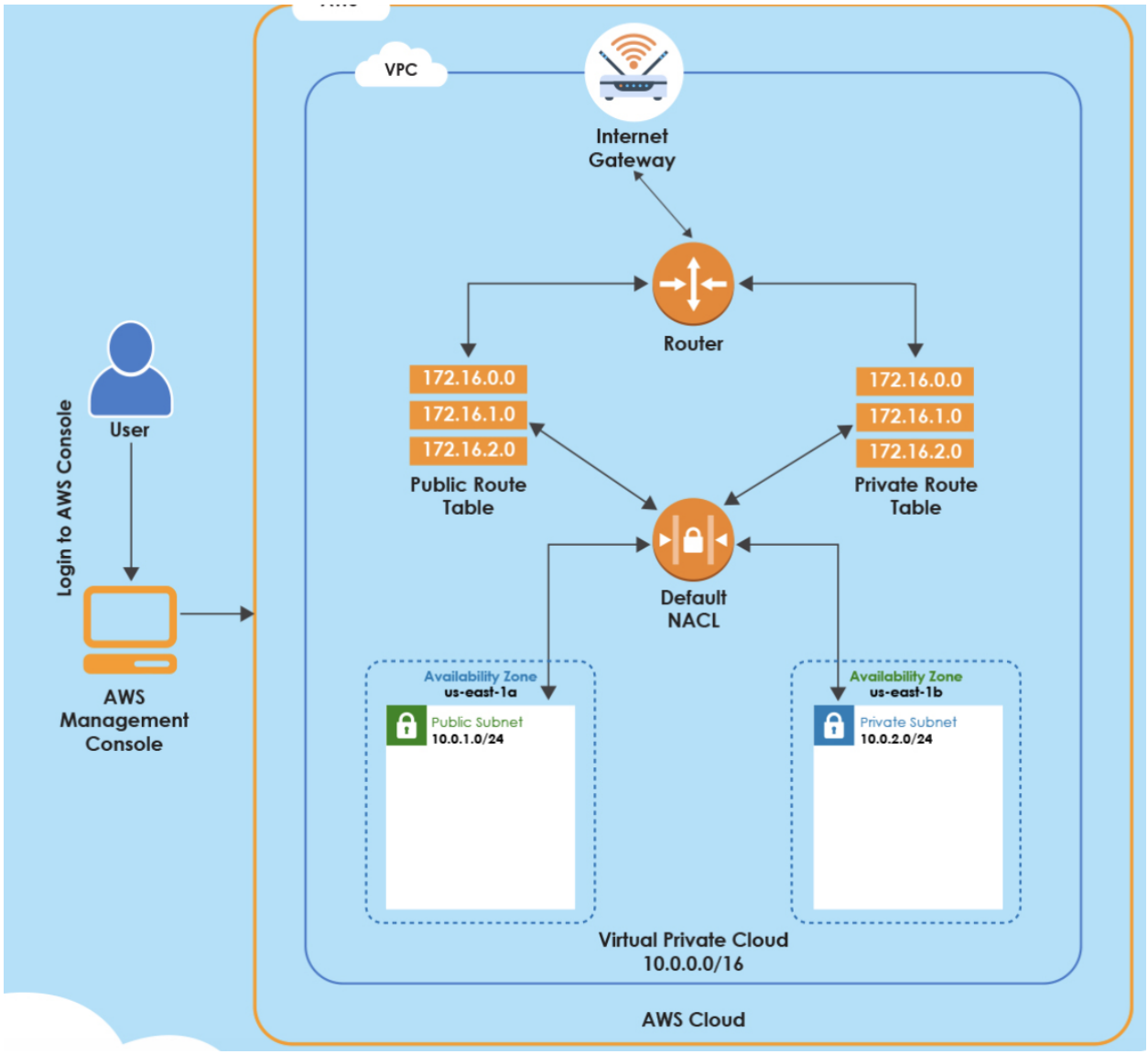
What is VPC?

- It stands for Virtual Private Cloud. It is a custom-defined virtual network within the AWS cloud where users can logically create their personal network, designing and implementing a separate and independent network that would operate in AWS Cloud.

Objective for this project:

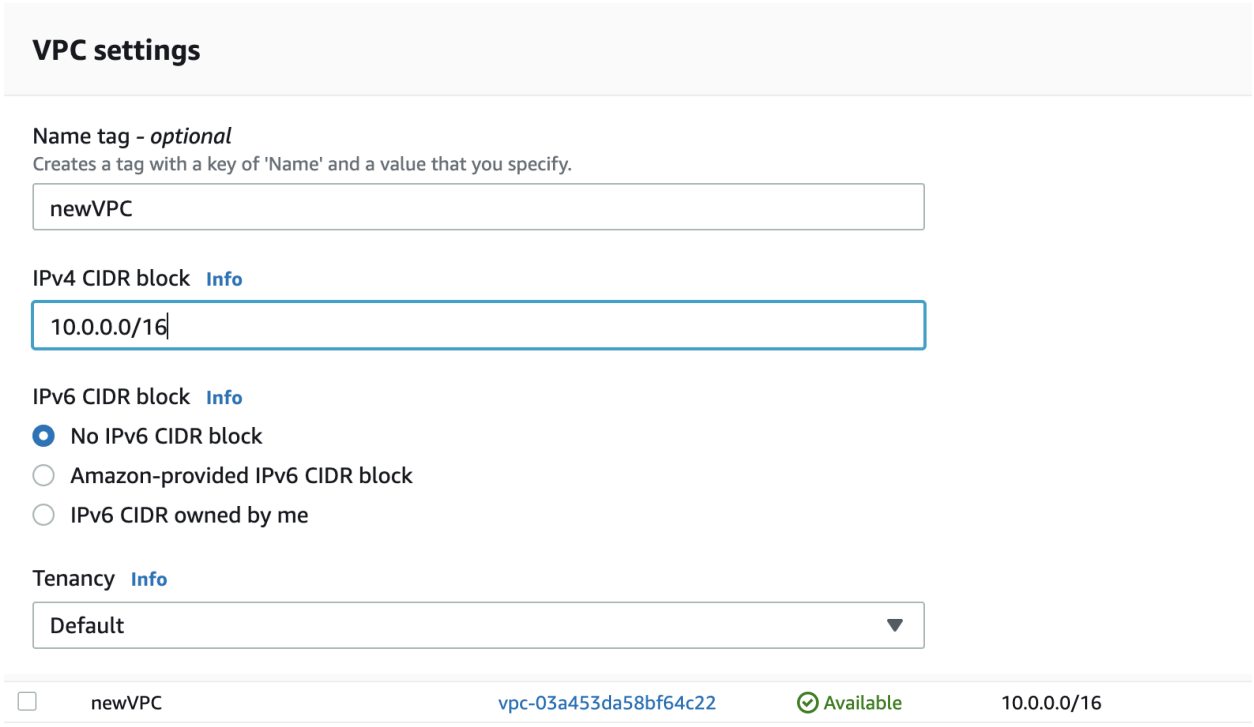
- We will be building both public and private subnets from scratch.

Architecture Diagram:



Step 1: Creating New VPC

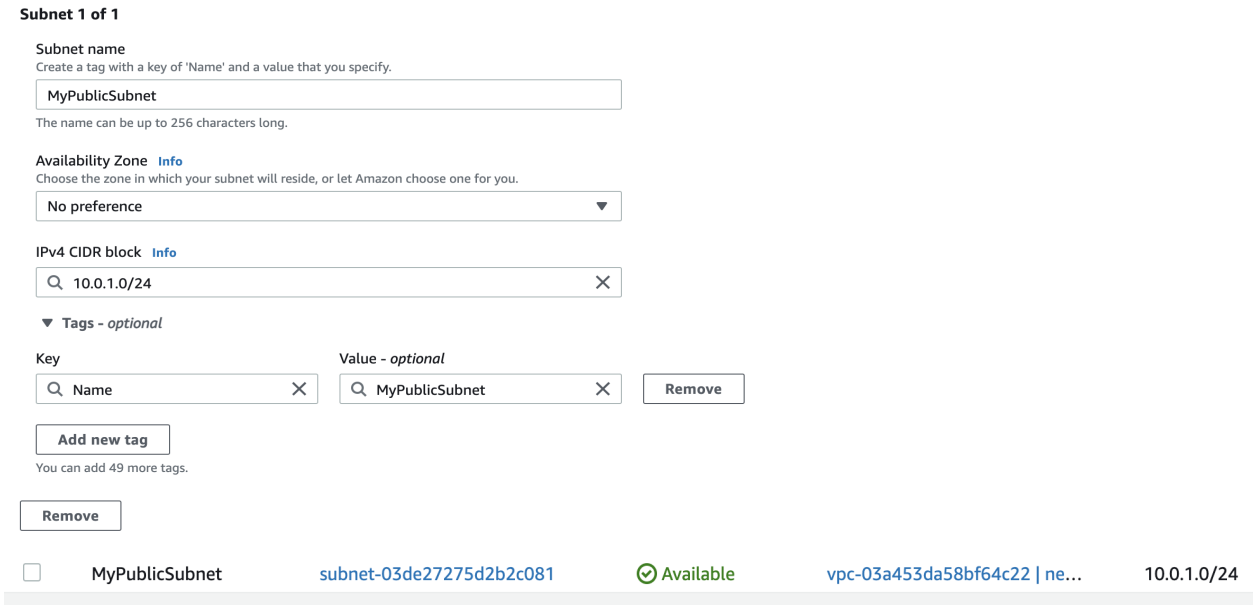
- We start with creating a new VPC in which the IPv4 CIDR Block is defined as 10.0.0.0/16



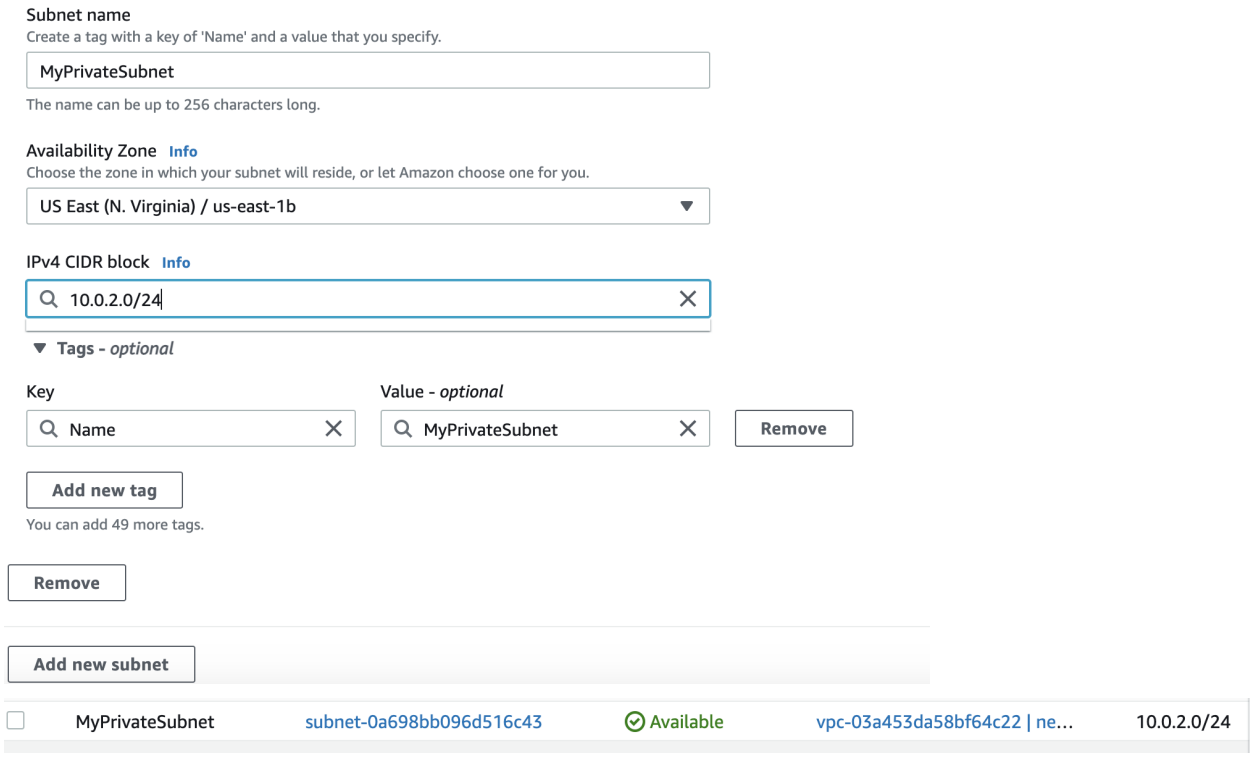
Step 2: Creating Subnets

Once we create the VPC, we then create one public subnet and a private subnet in us-east-1a and us-east-1b respectively.

Here, we start with creating the public subnet

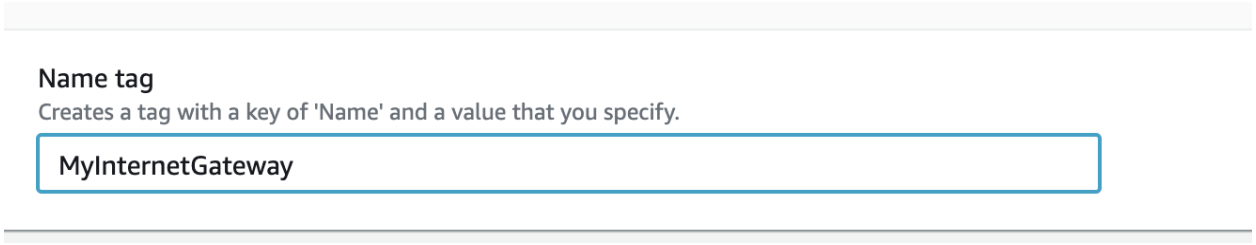


And secondly, the private subnet.

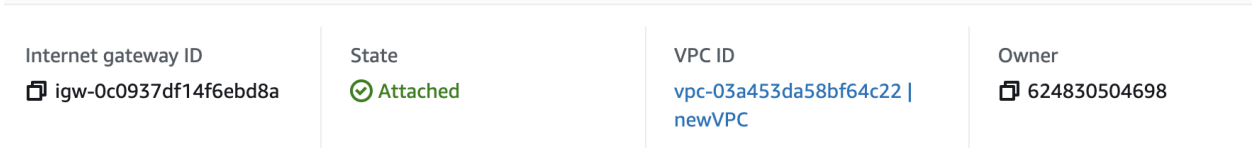


Step 3: Create and Configure Internet Gateway

We then create an Internet Gateway that helps connect the VPC to the internet.



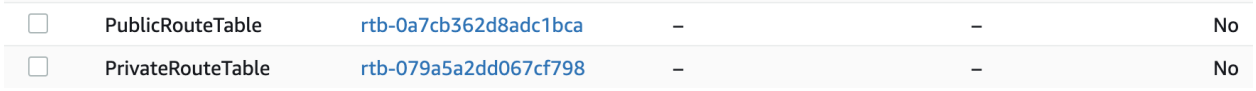
We then attach the Internet Gateway to the VPC.



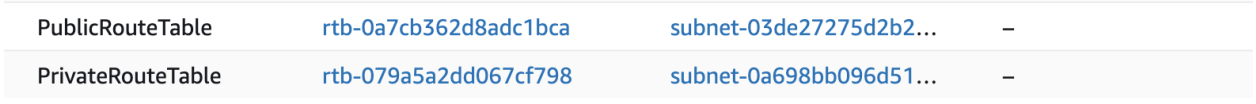
Step 4: Create Route Tables

Once we are done with creating the Internet Gateway, we then create and configure route tables, both public and private. The objective is to associate the public subnet with the public router and the private subnet with the private router. We then connect the public router to the Internet Gateway.

We start with creating both public and private route tables



We then attach the route tables to their respective subnets.



And lastly, we connect the public router to the Internet Gateway.