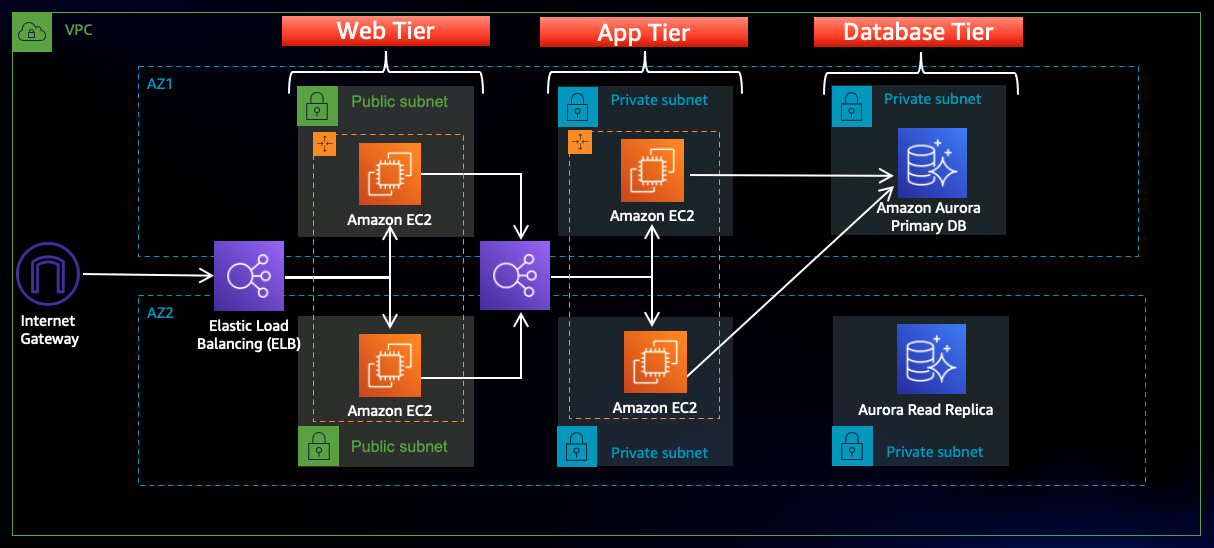
**Task 1**

1. **NETWORKING AND SECURITY**

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**A screenshot of a computer

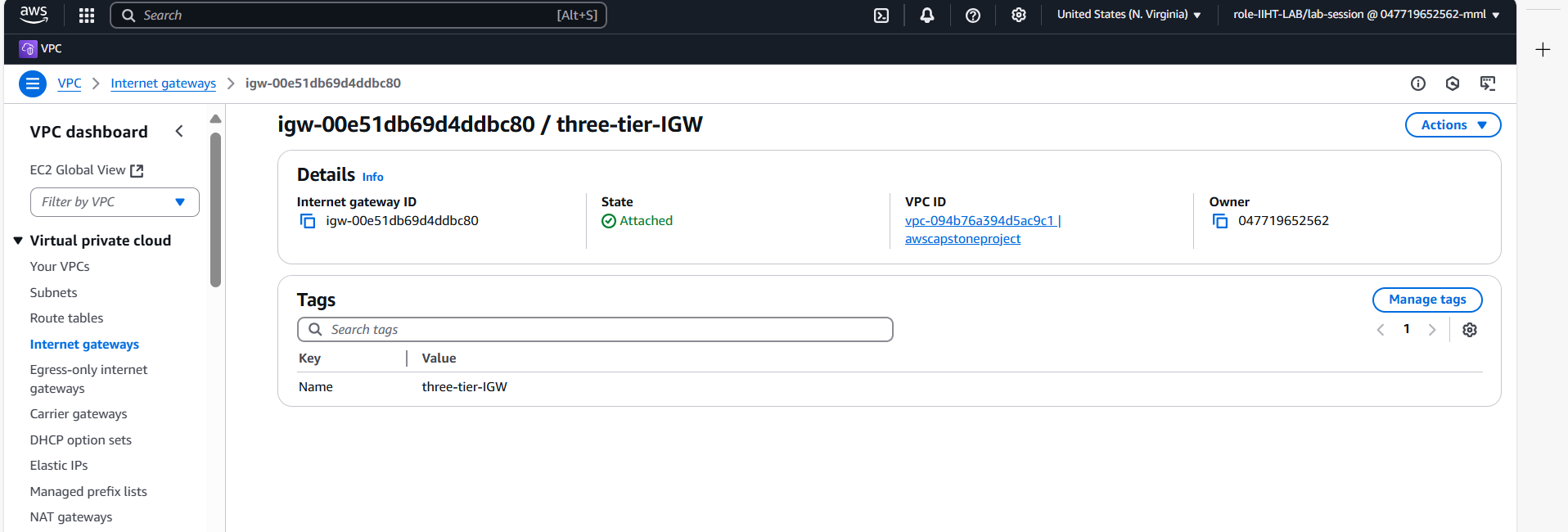
AI-generated content may be incorrect.**

**A screenshot of a computer

AI-generated content may be incorrect.**

**A screenshot of a computer

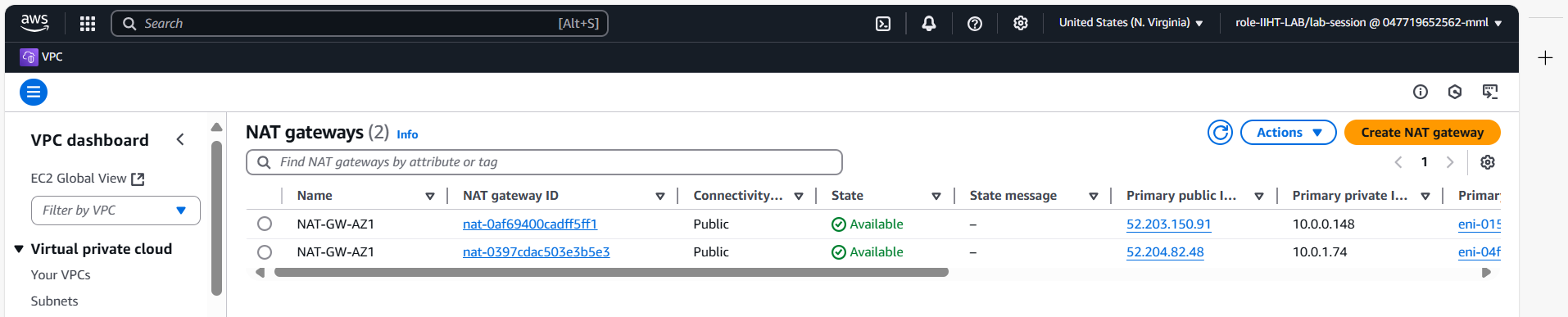
AI-generated content may be incorrect.**



**Step 7: Create two NAT Gateways to both the Public-Web-Subnet-AZ1 and Public-Web-Subnet-AZ2**

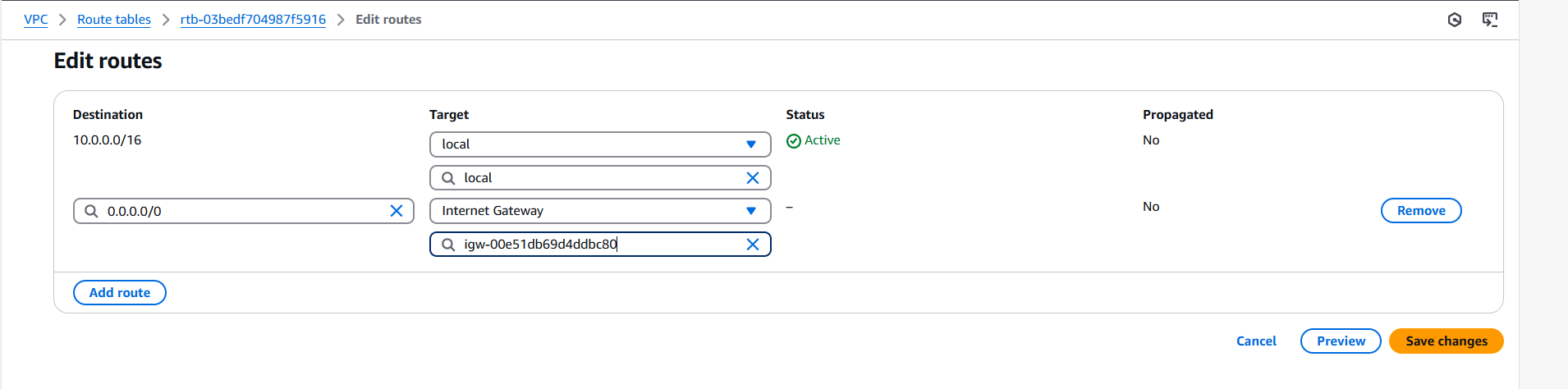
Name: NAT-GW-AZ1 and

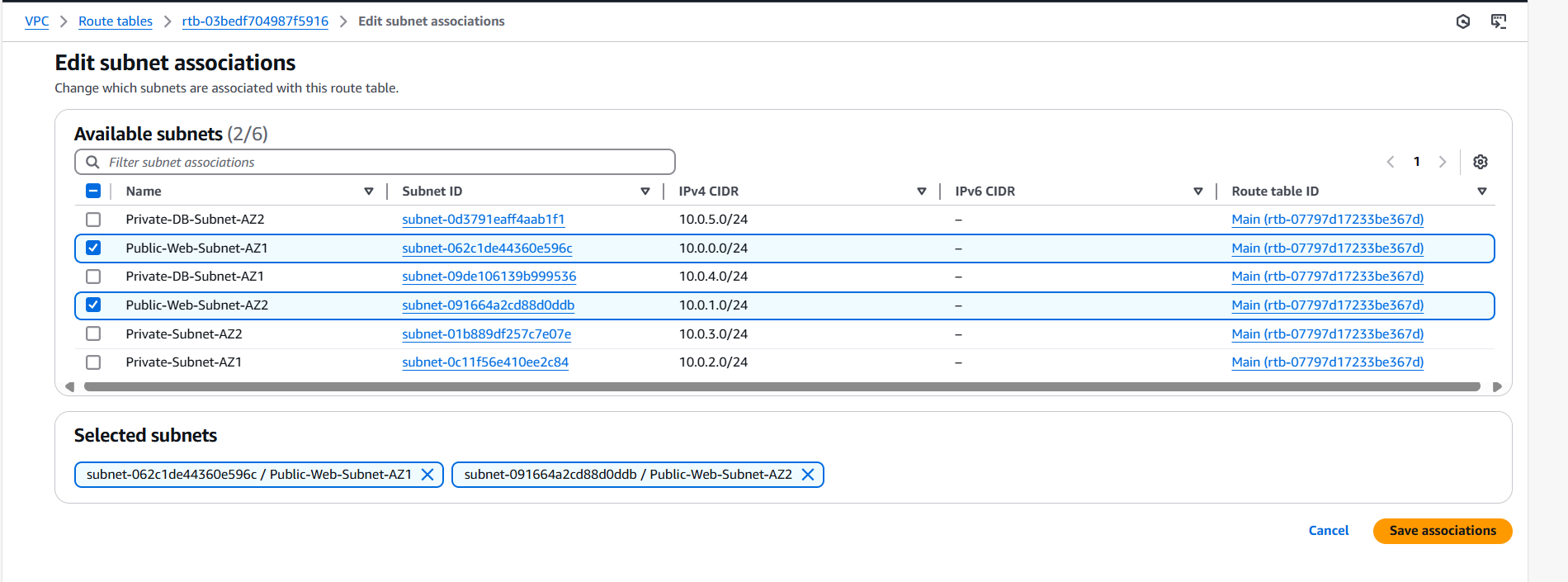
Name: NAT-GW-AZ2

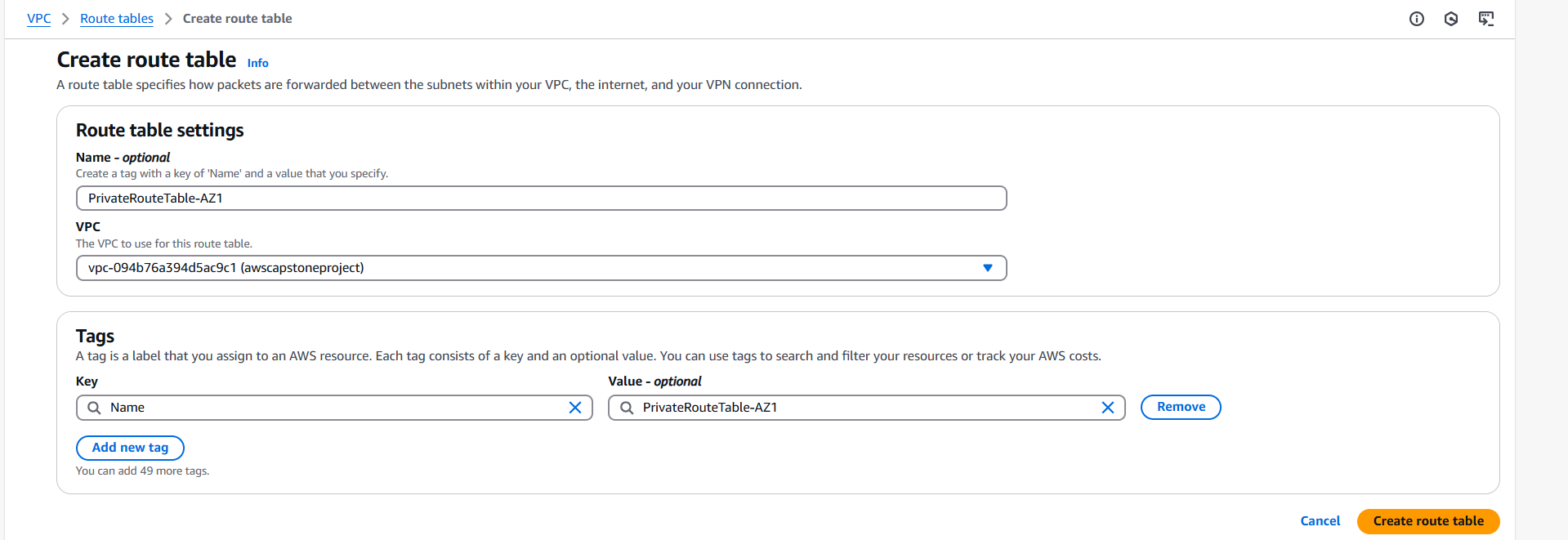
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**Step 8: Create a Route Table**

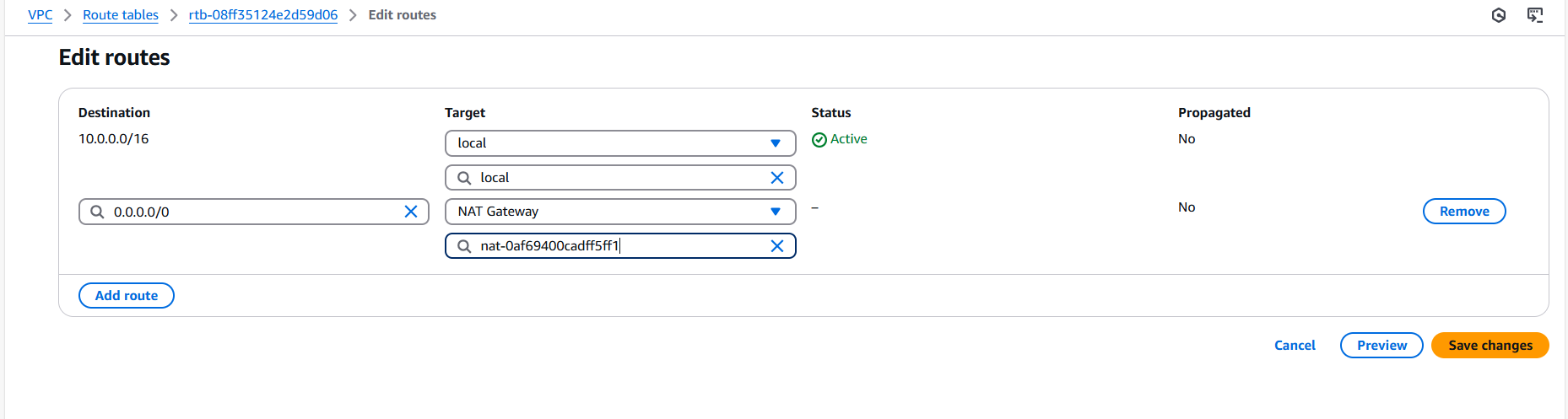
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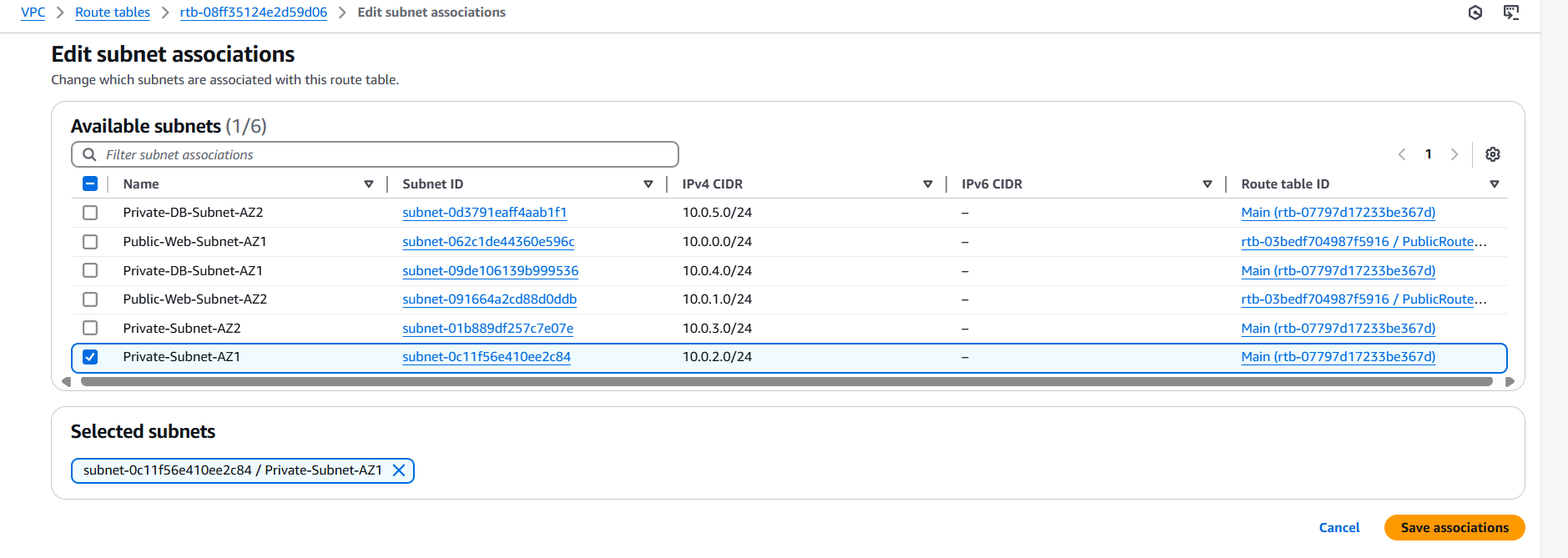
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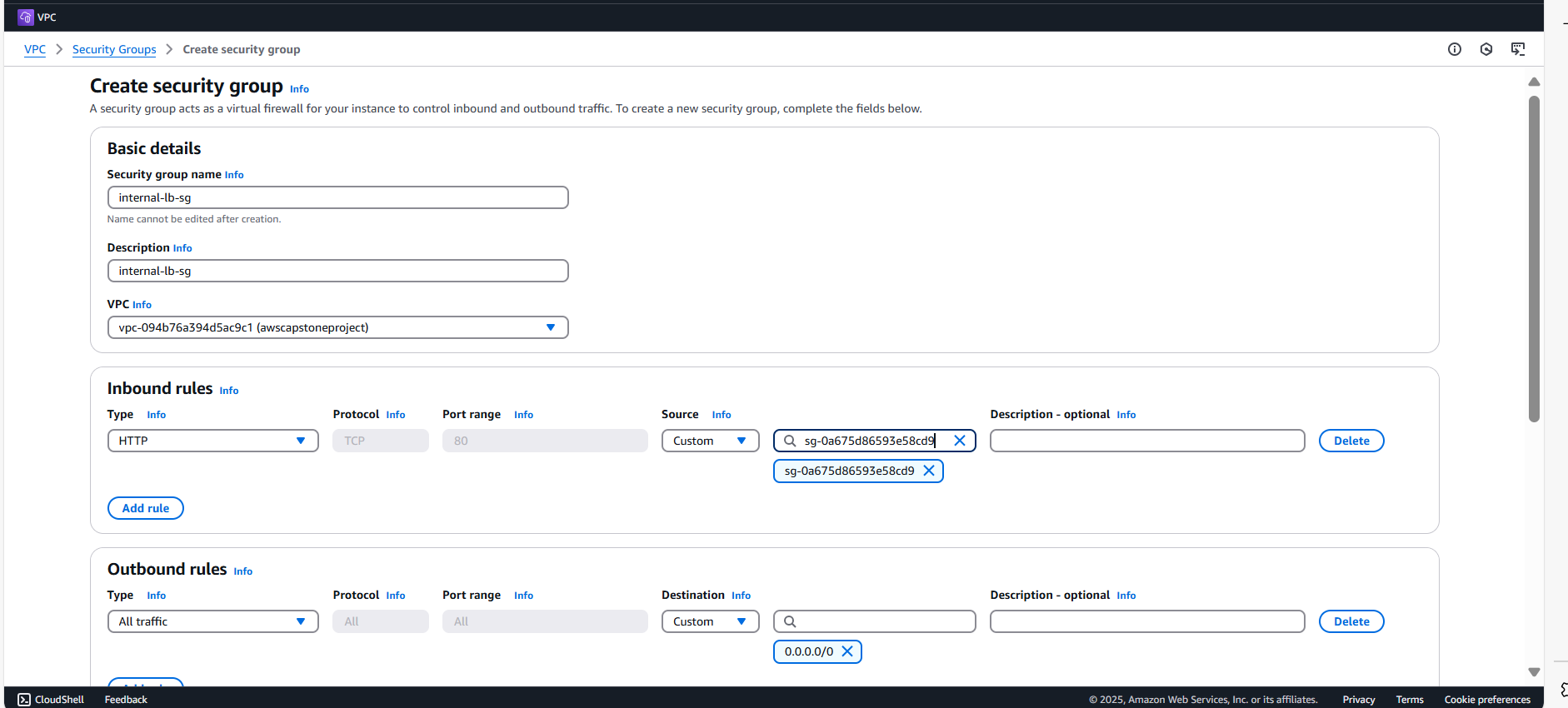
Creating NAT Gateway for the private subnet instead of internet gateway what we did in public subnet is internet gateway.

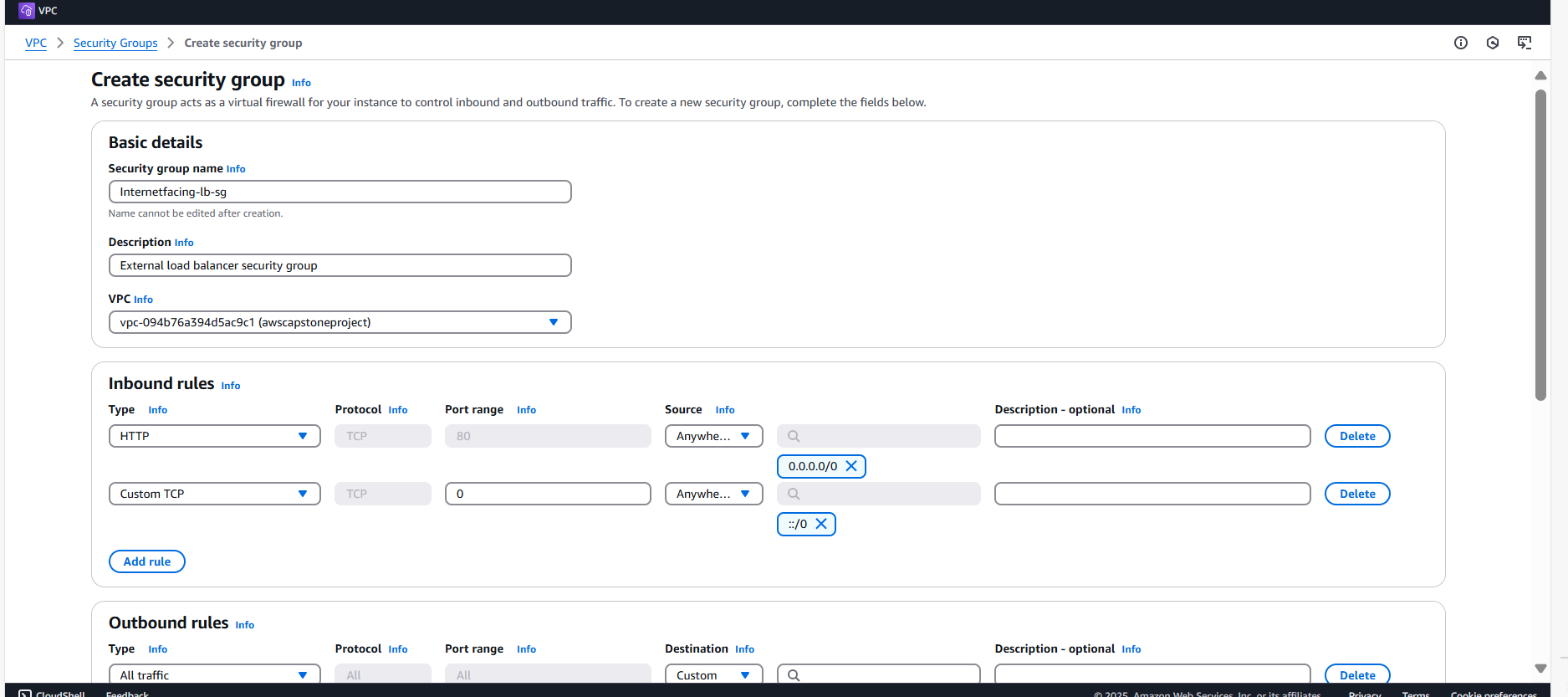
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**Step 9: Creating a security group**

Name: InternetFacing-lb-sg

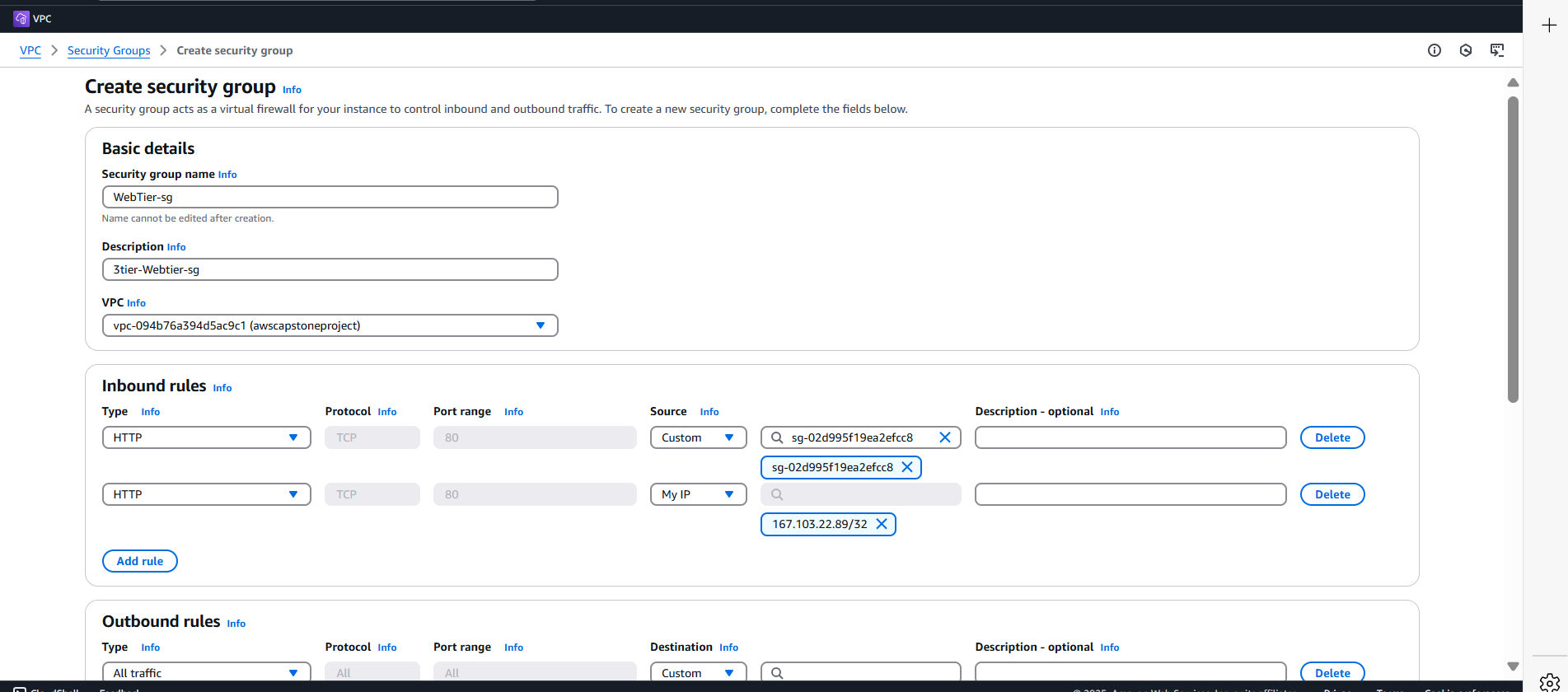


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Create another security group

Name:WebTier-sg

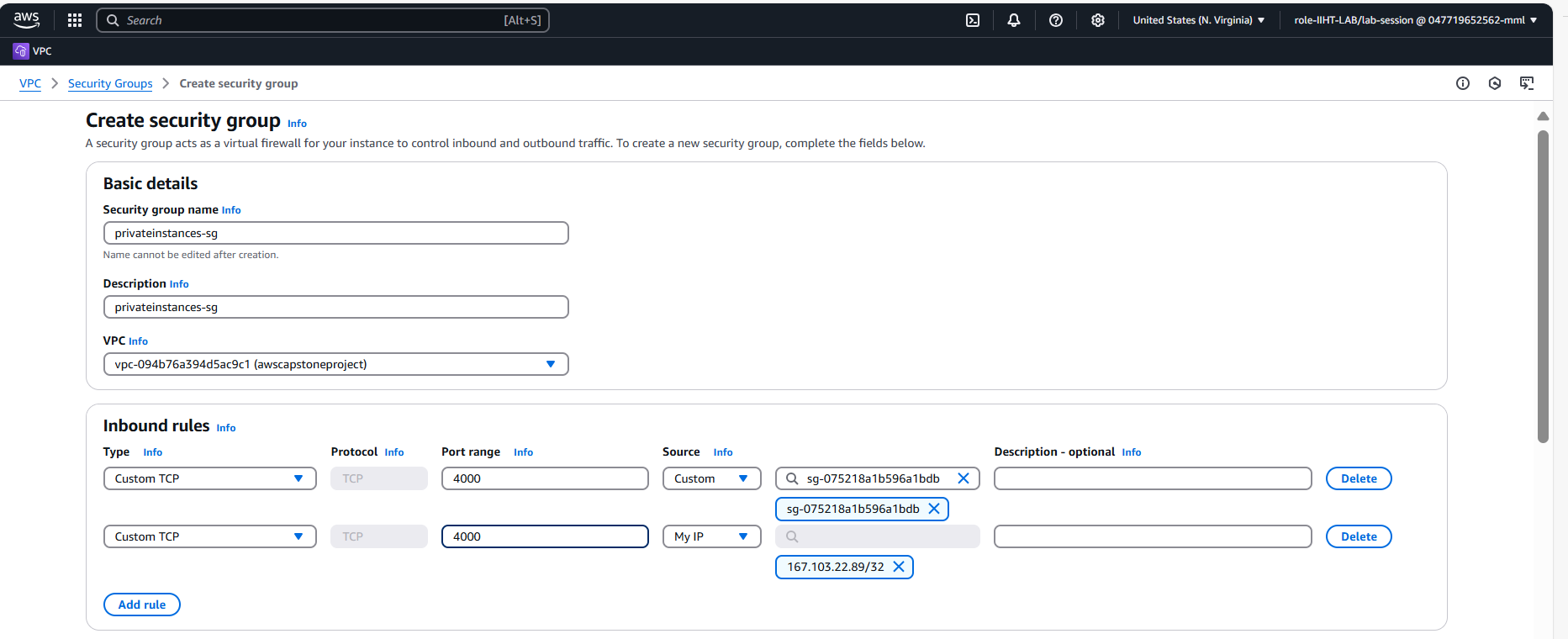
3rd security group for accessing the internet within the web tier.

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4th security group is for the private servers.

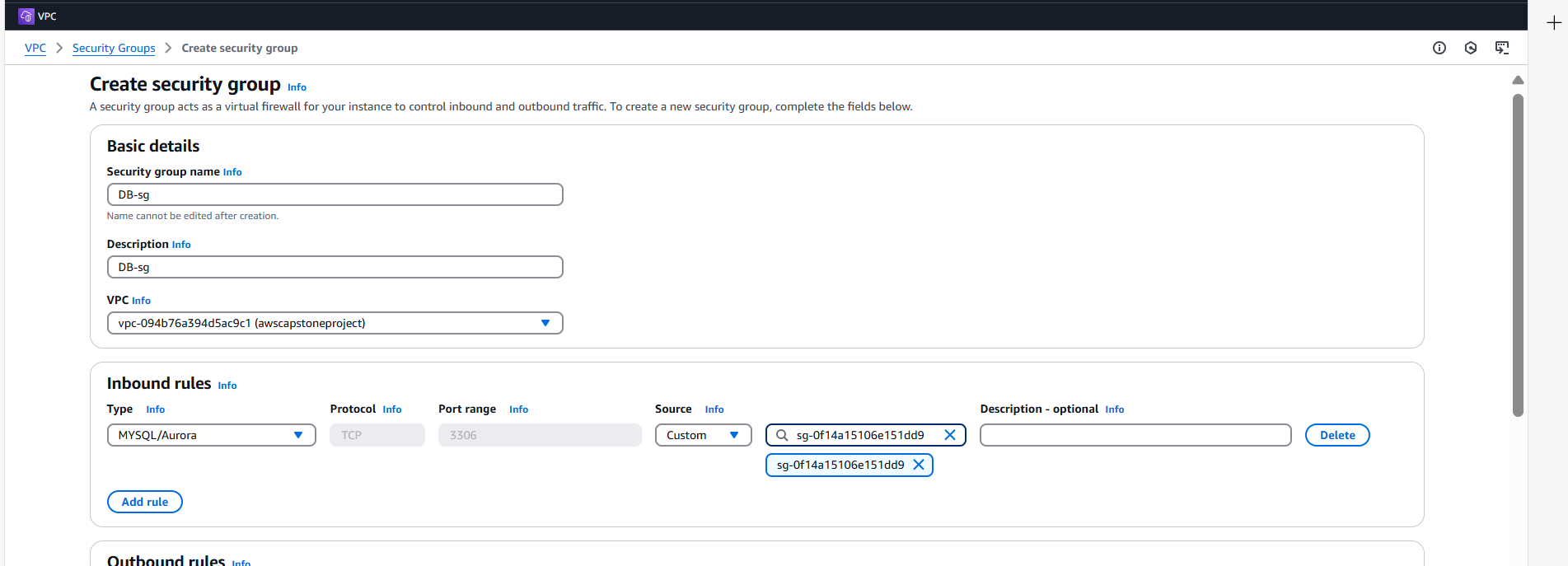
Open port: 4000

Security group:Internal-lb-sg



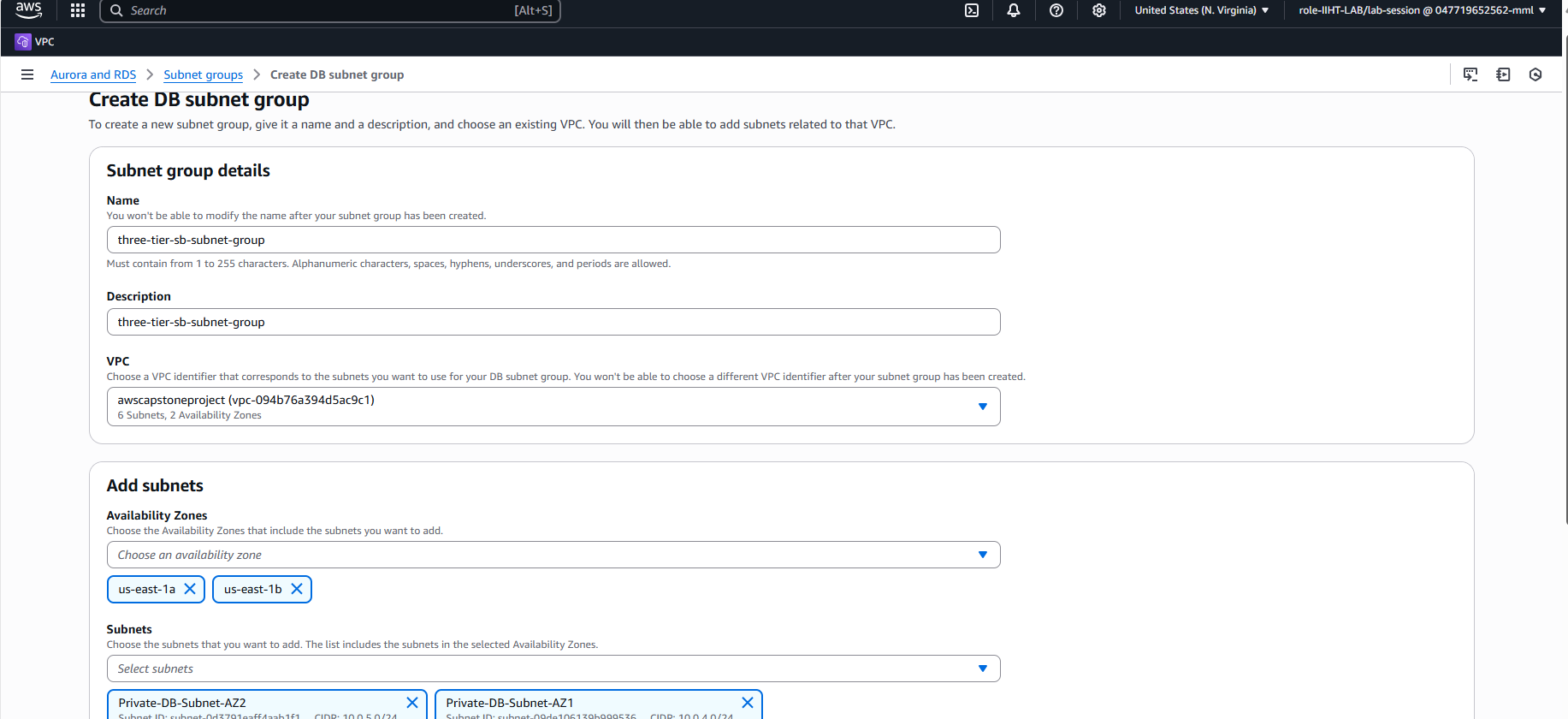
5th Security group- Access to Mysql and port 3306

Private-instances-sg



1. **DATABASE DEPLOYMENT**

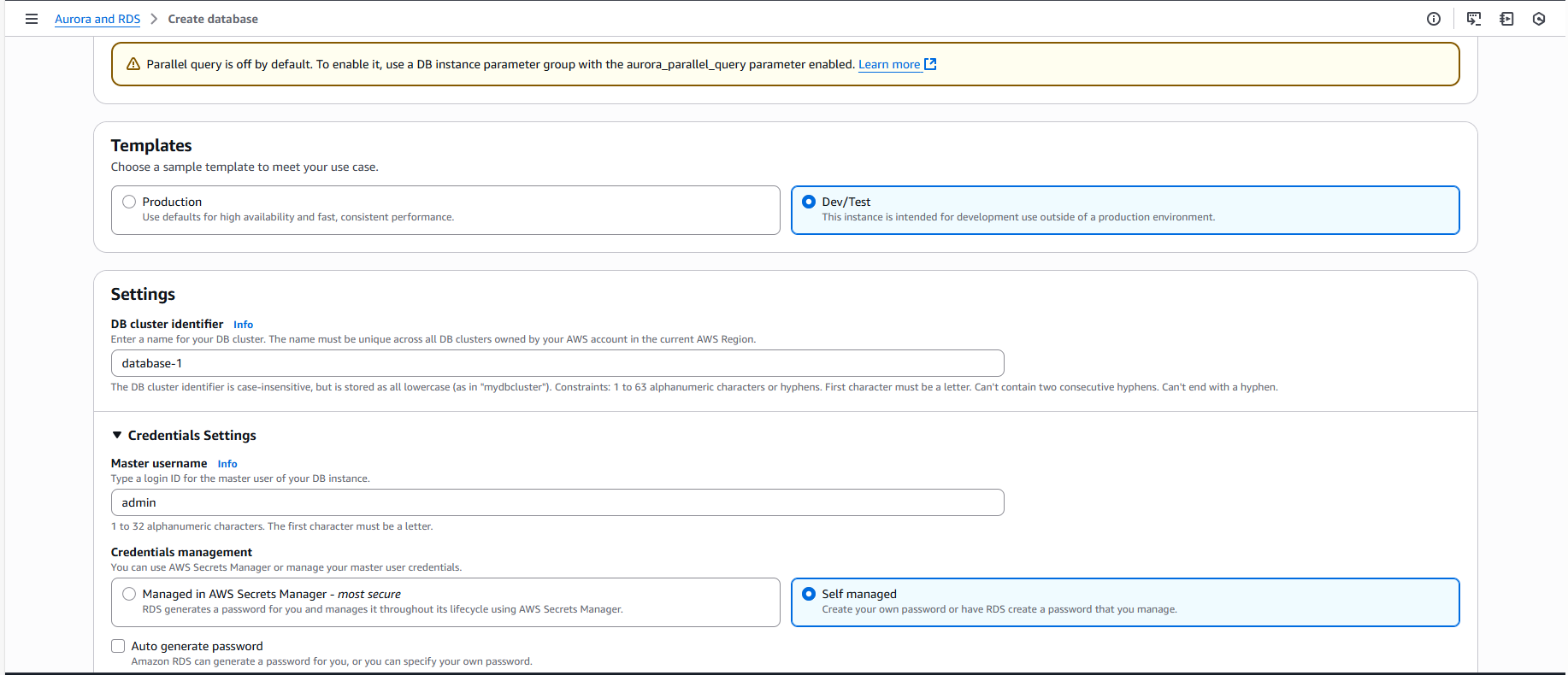
**Step 1: Create a DB Subnet group.**



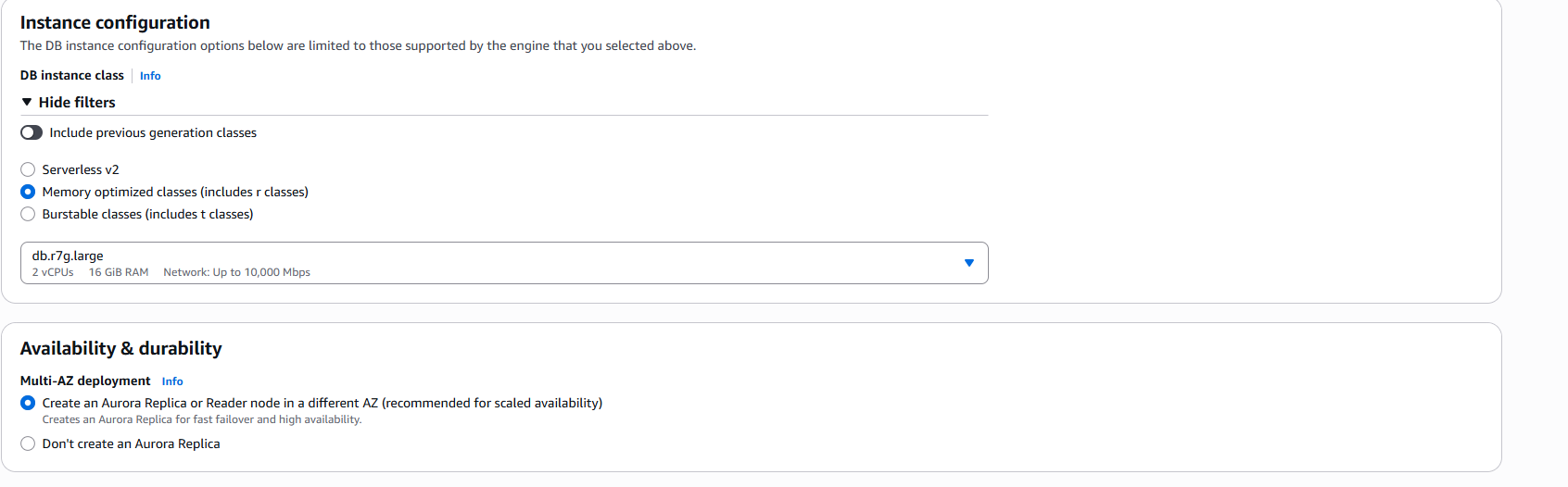
**Step 2: Goto Databases**

**Create a database.**

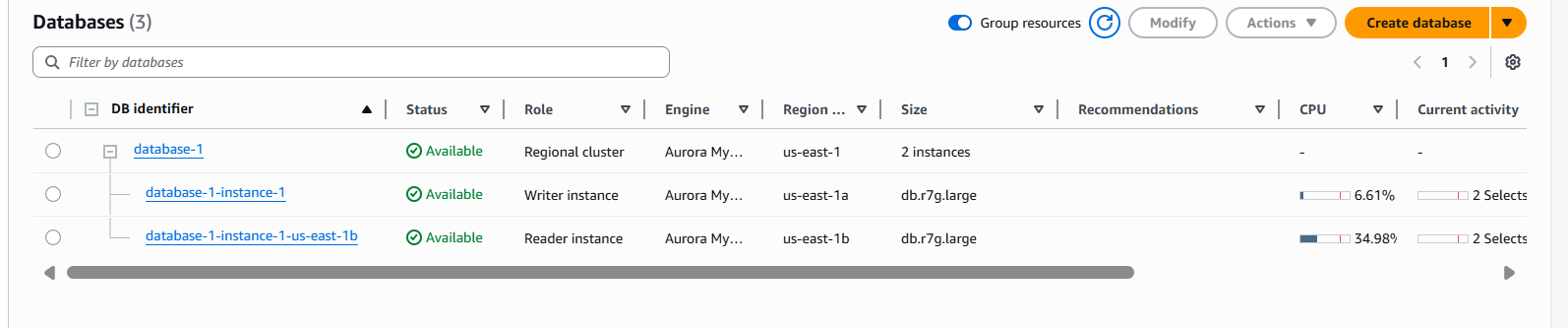
**Create a Master password: Adminpassword123**

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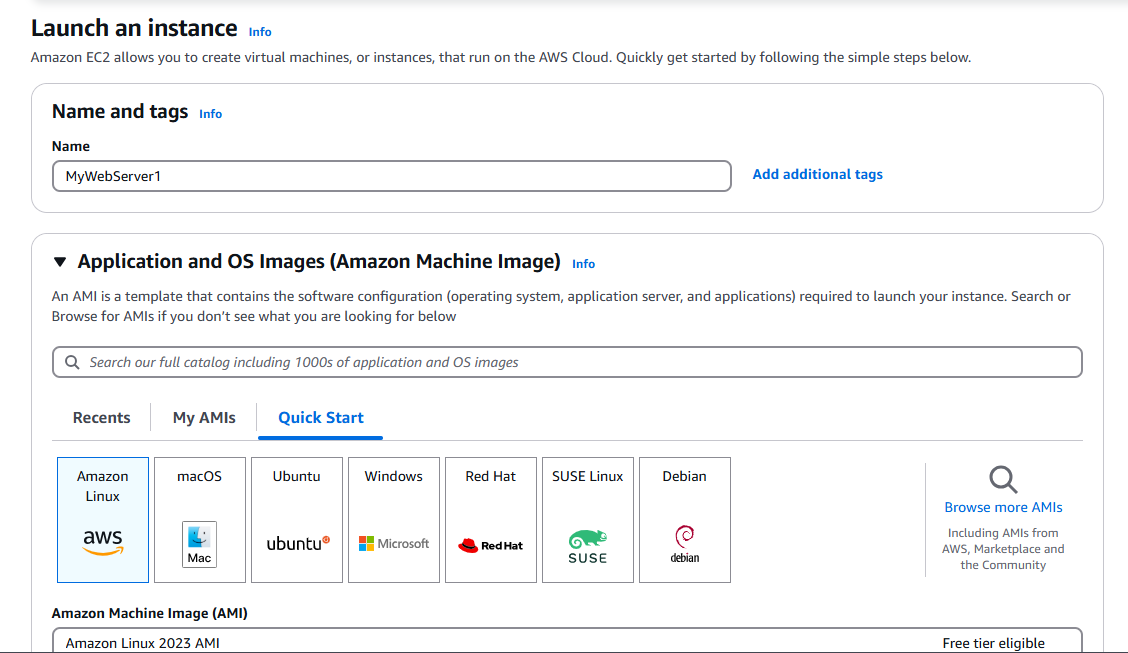
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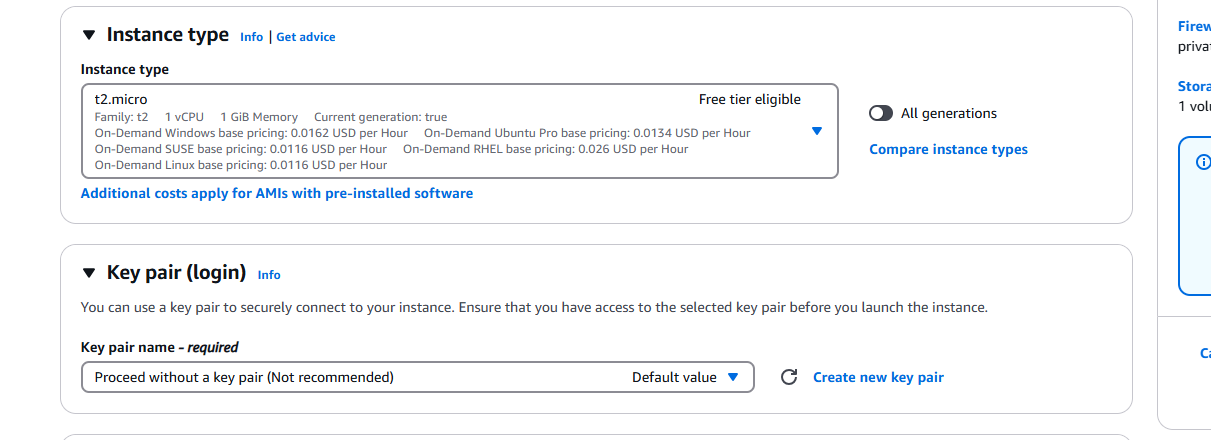
**Databases created.**

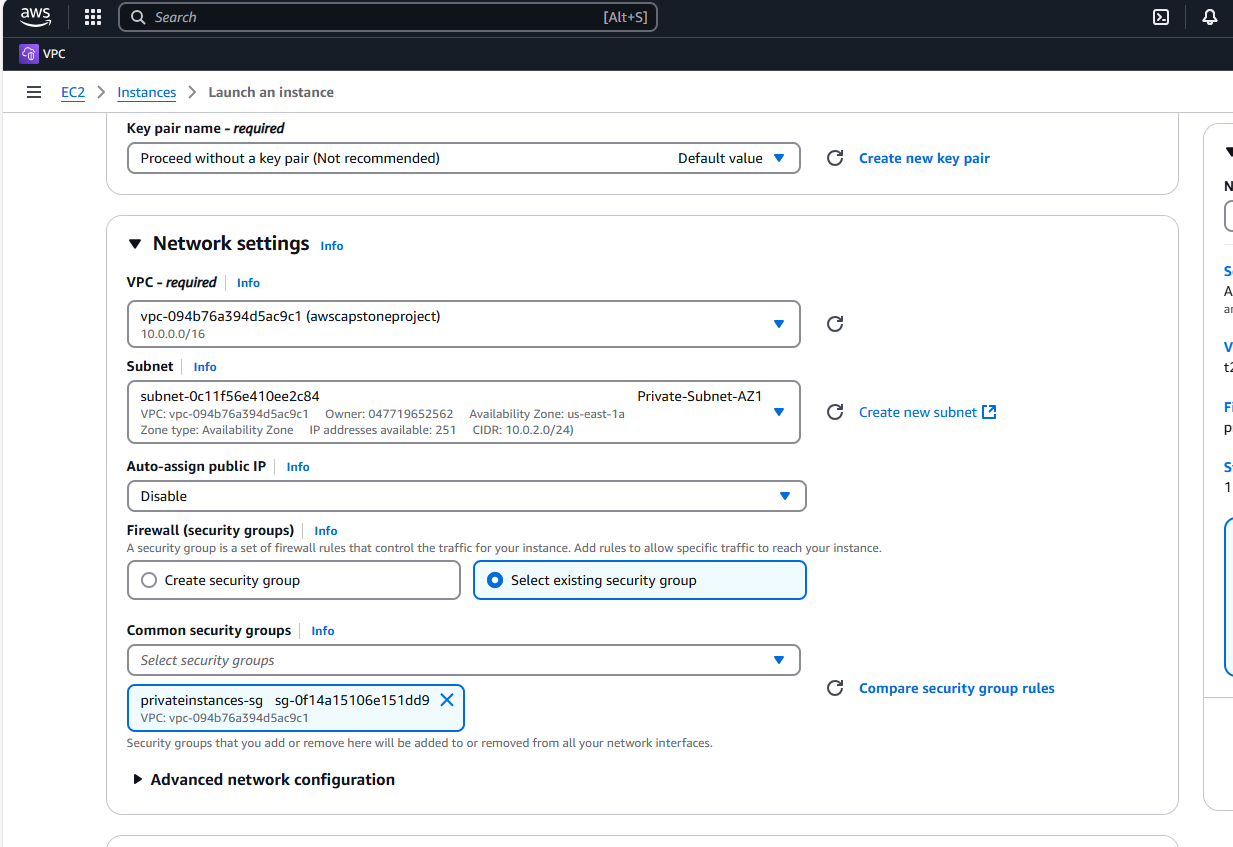
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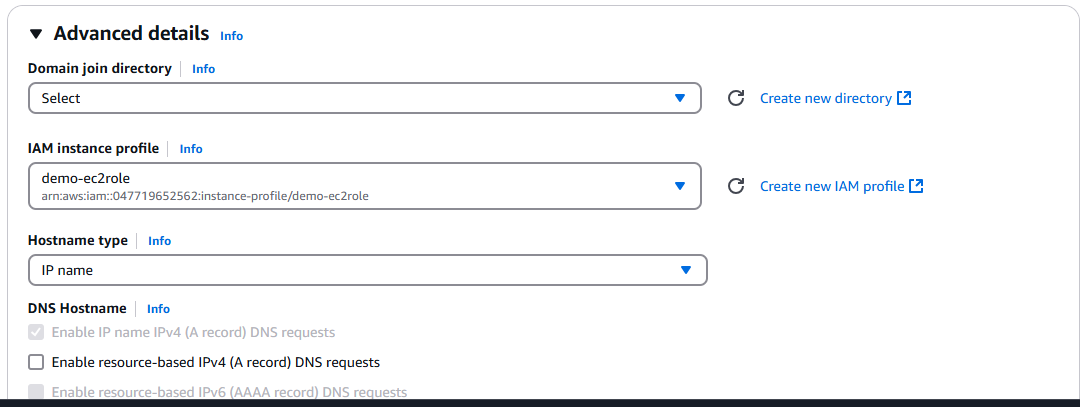
**App Tier Instance Deployment**

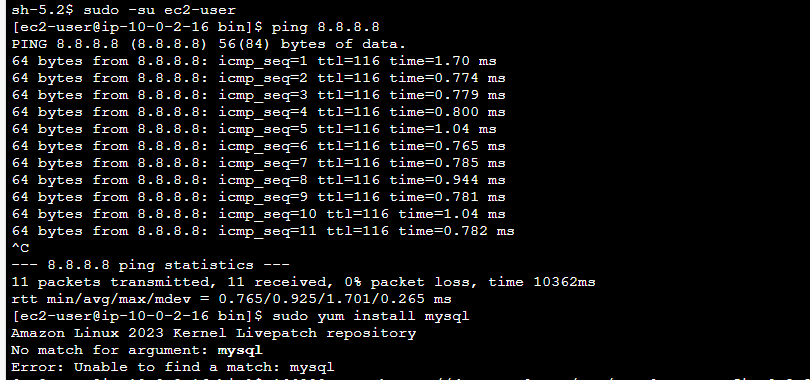
**Step 1: Create an EC2 Instance.**

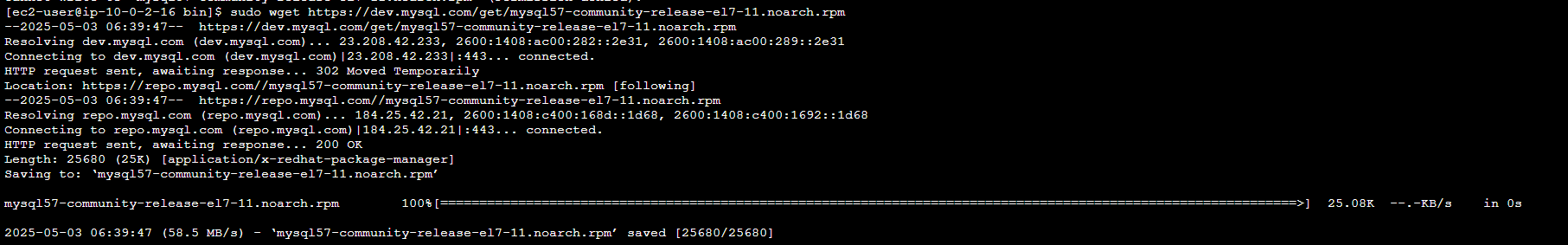
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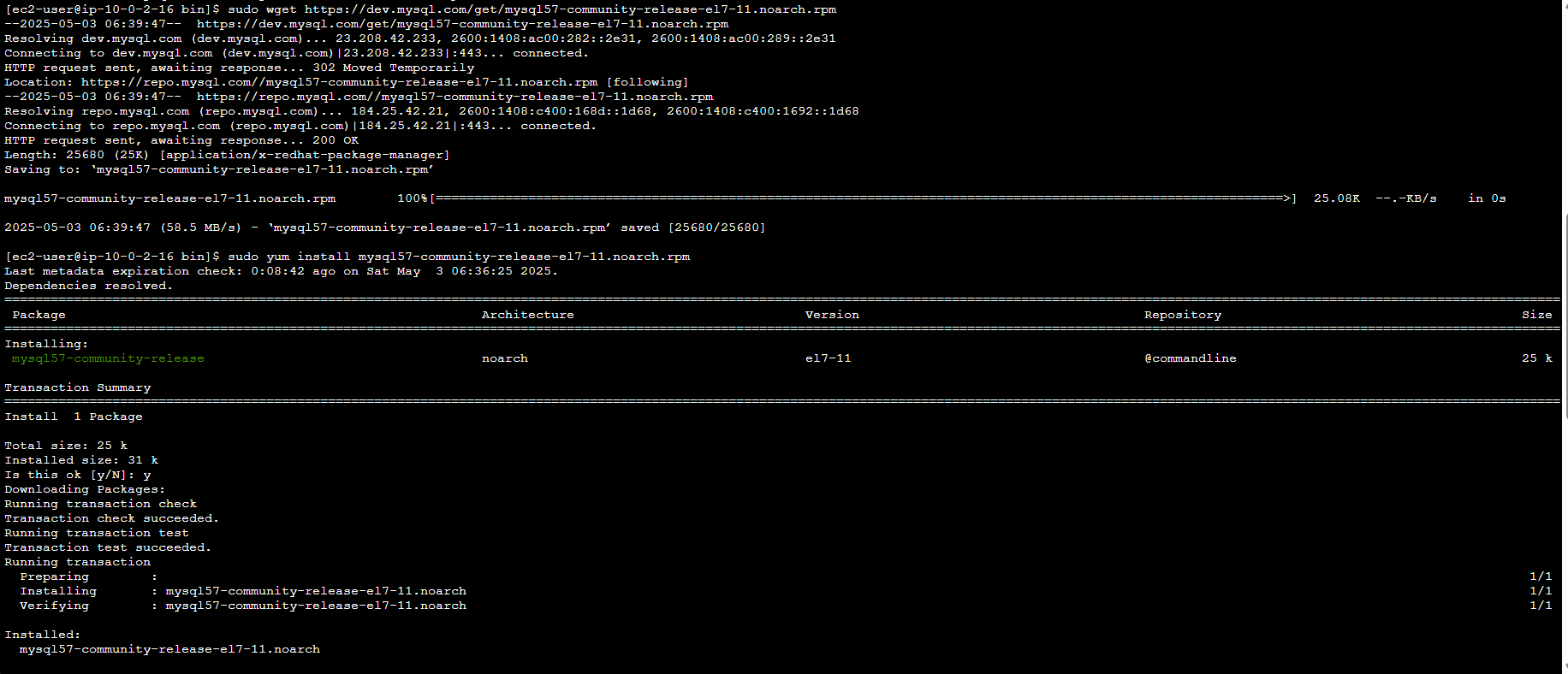
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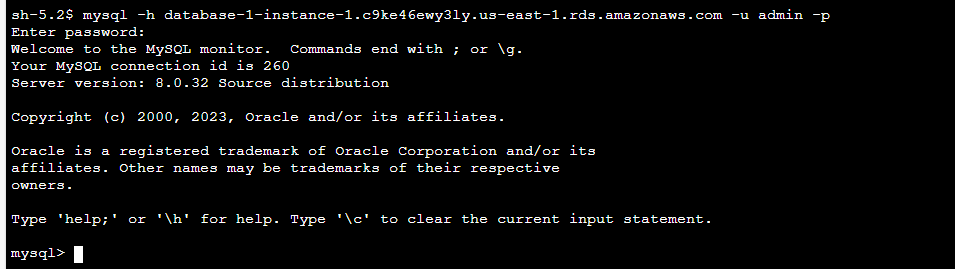
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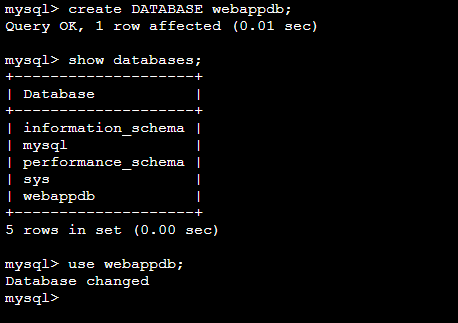
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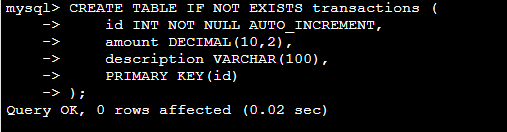
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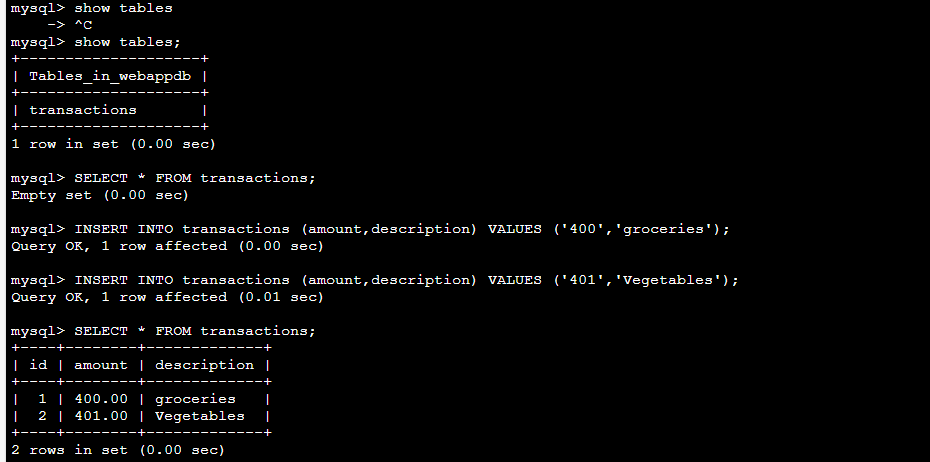
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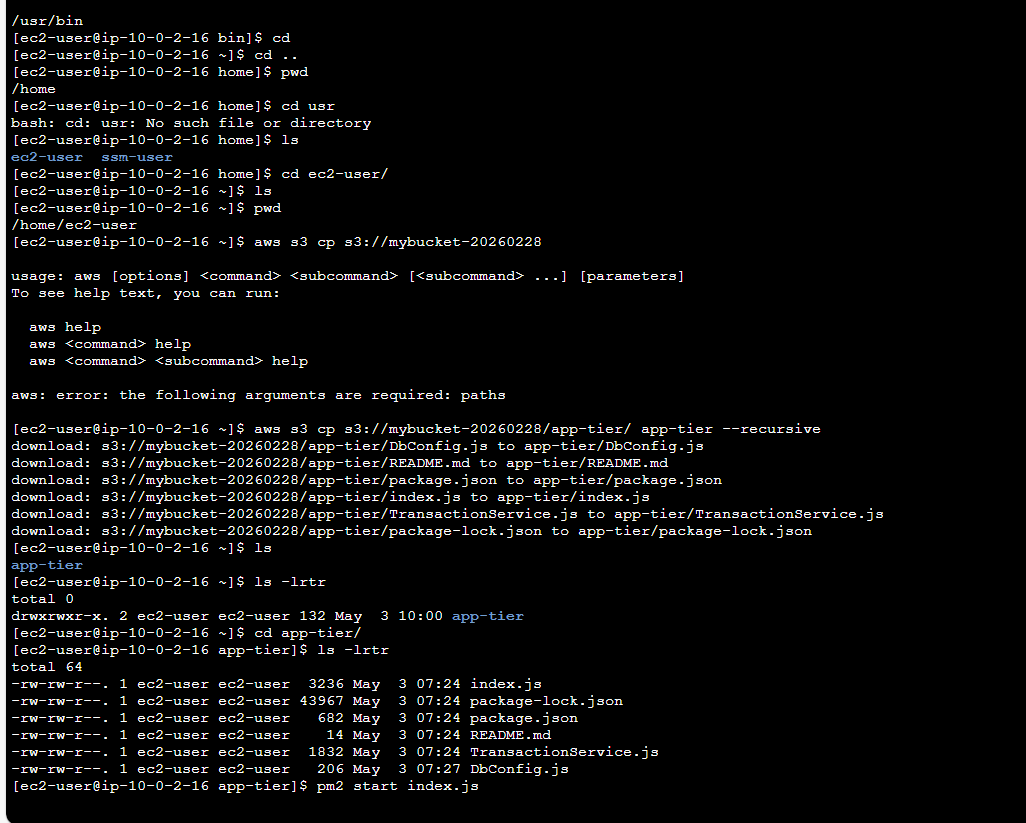
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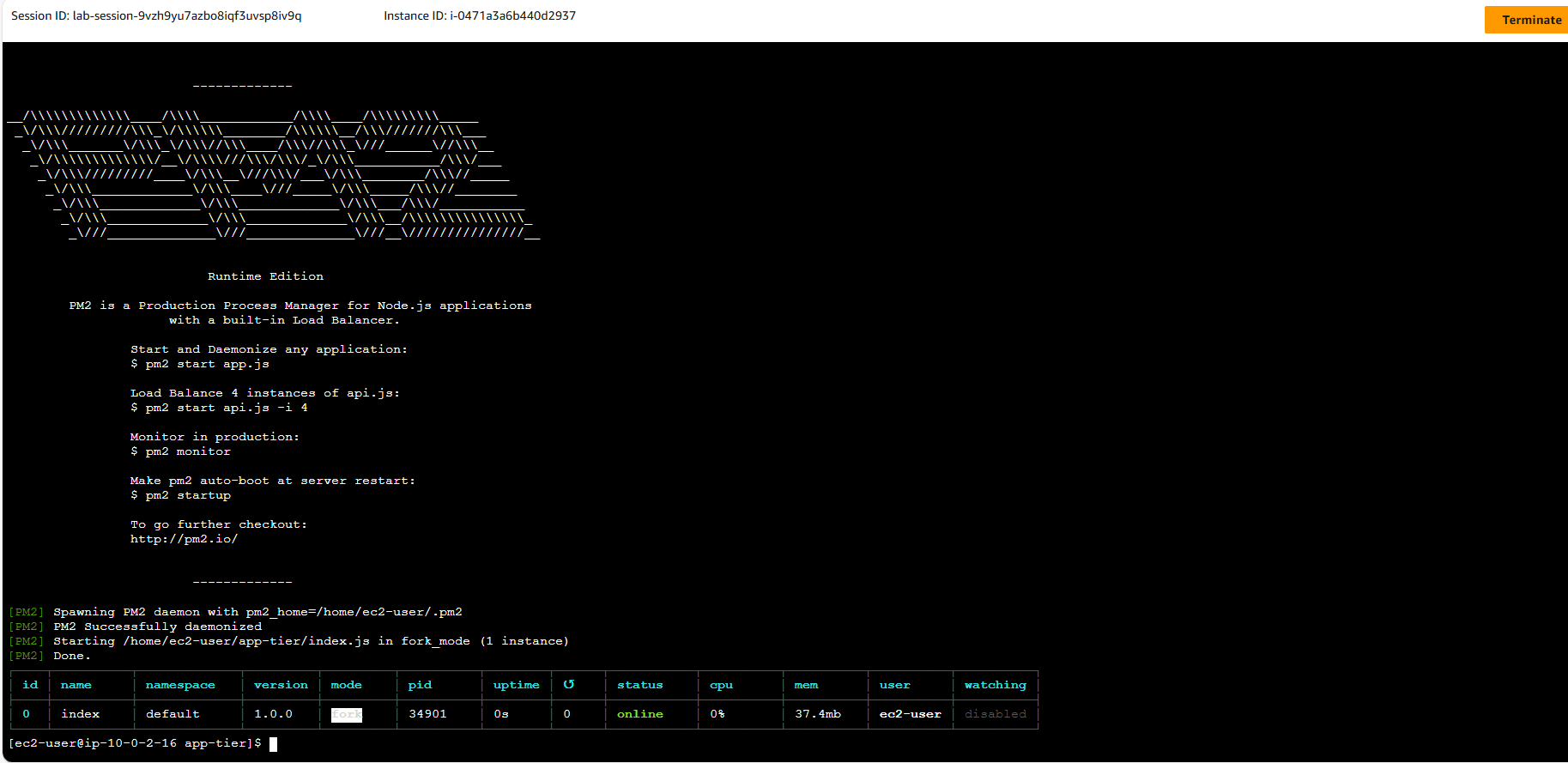
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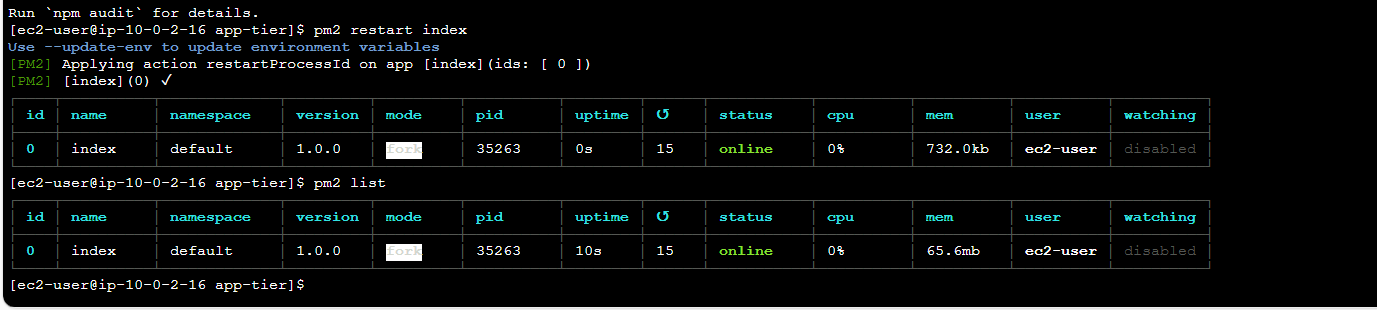
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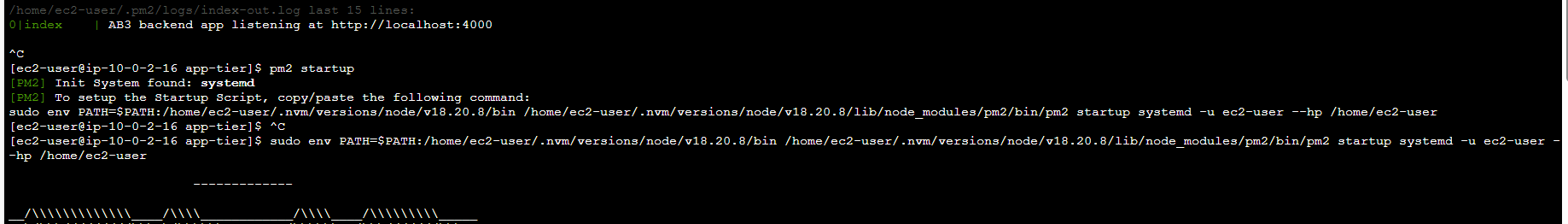
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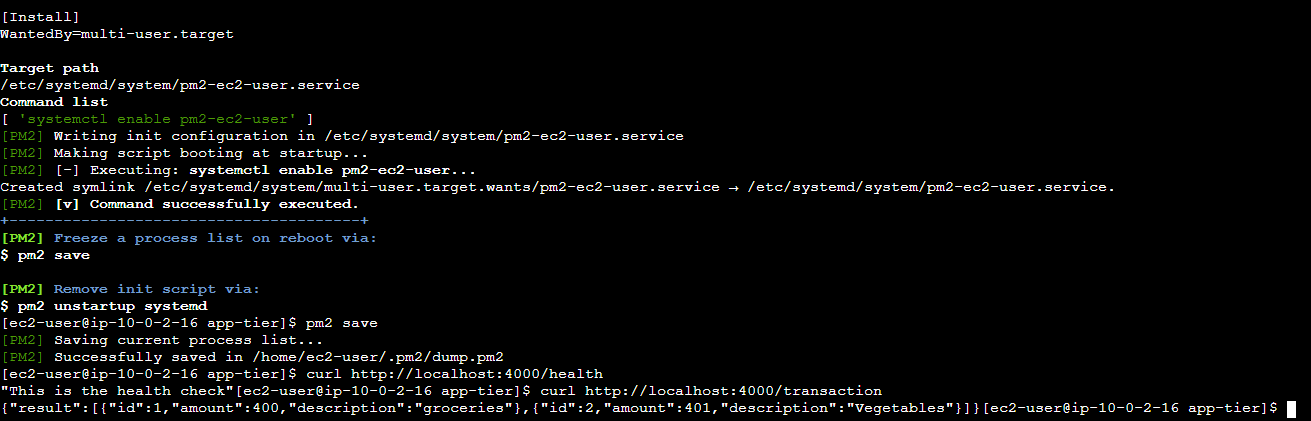
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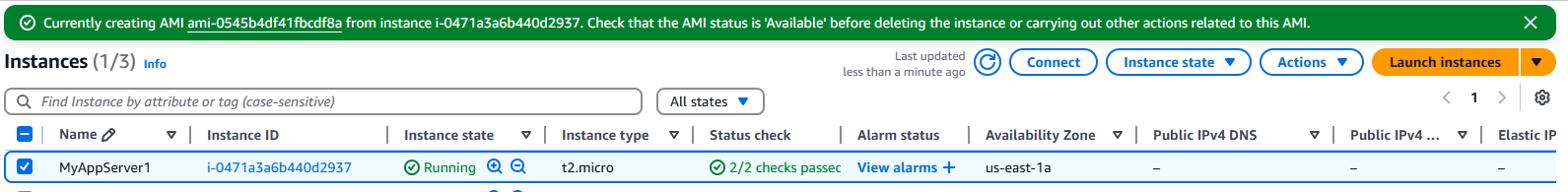
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**Internal Load Balancing and Auto Scaling**

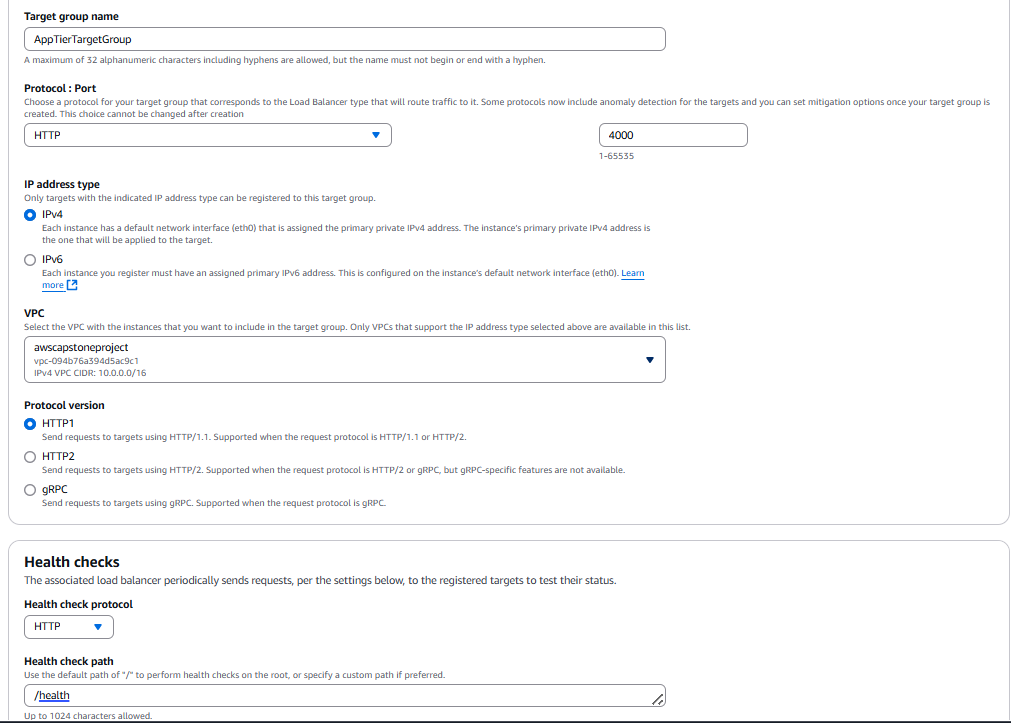
**Step 1: App Tier AMI**

**-Goto the instance created change the name as myappserver1 for the instance.**

**- Select the instance>Actions>Create image.**

****

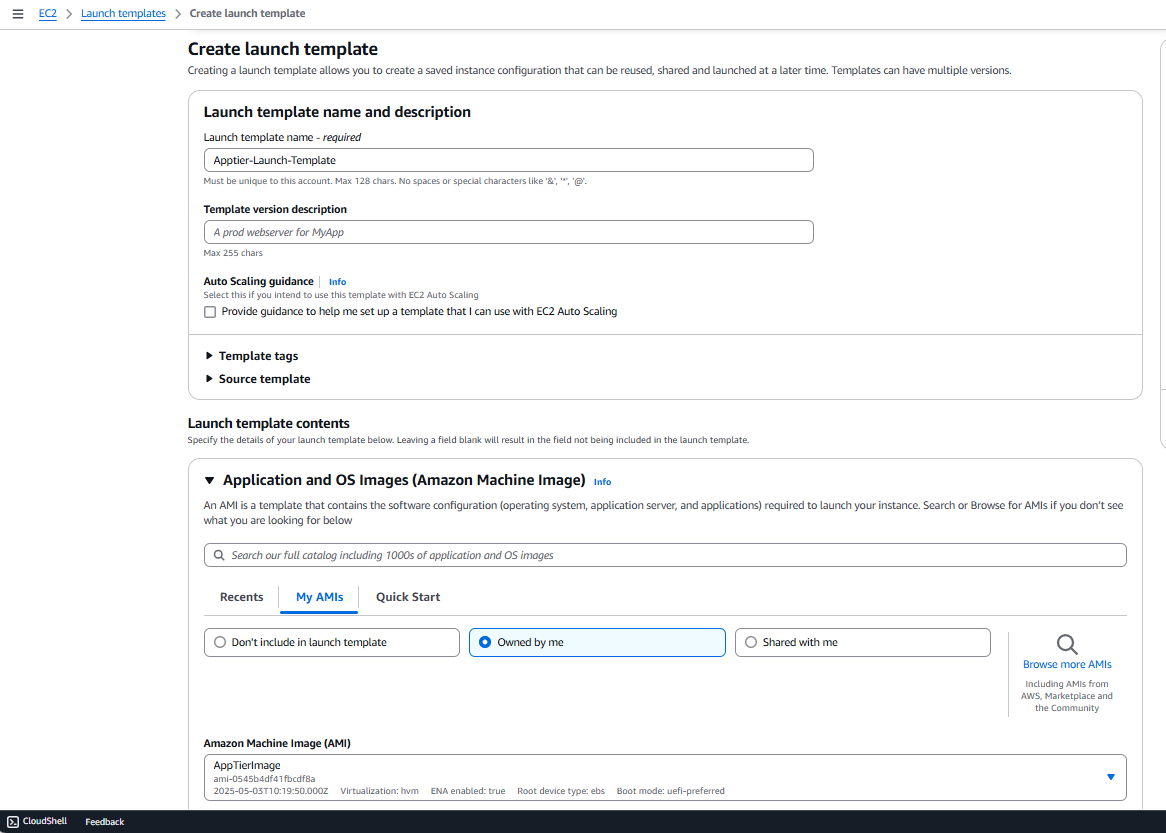
**Step 2: Target Group**

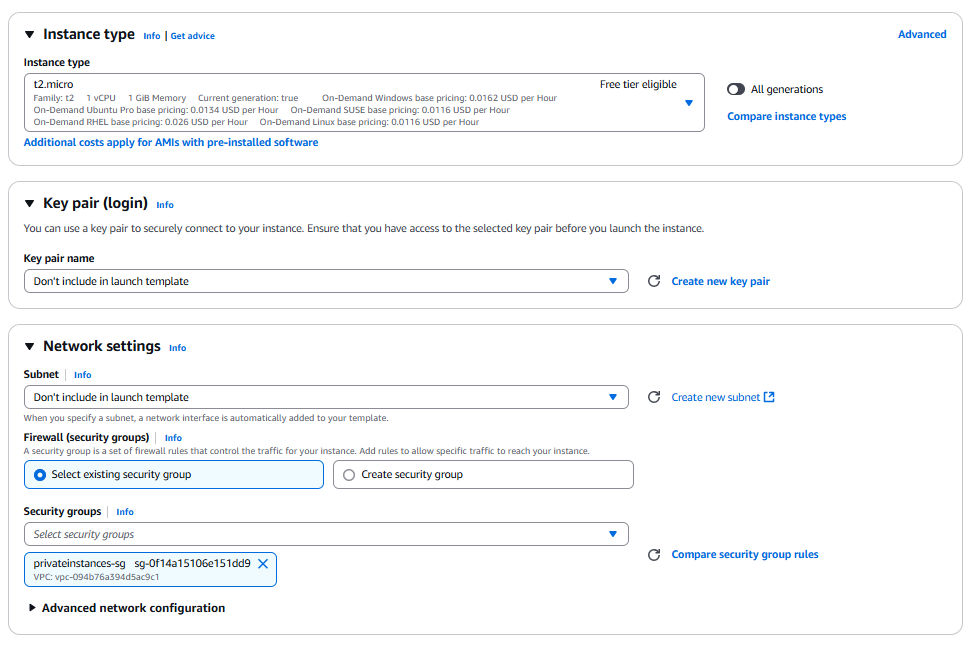
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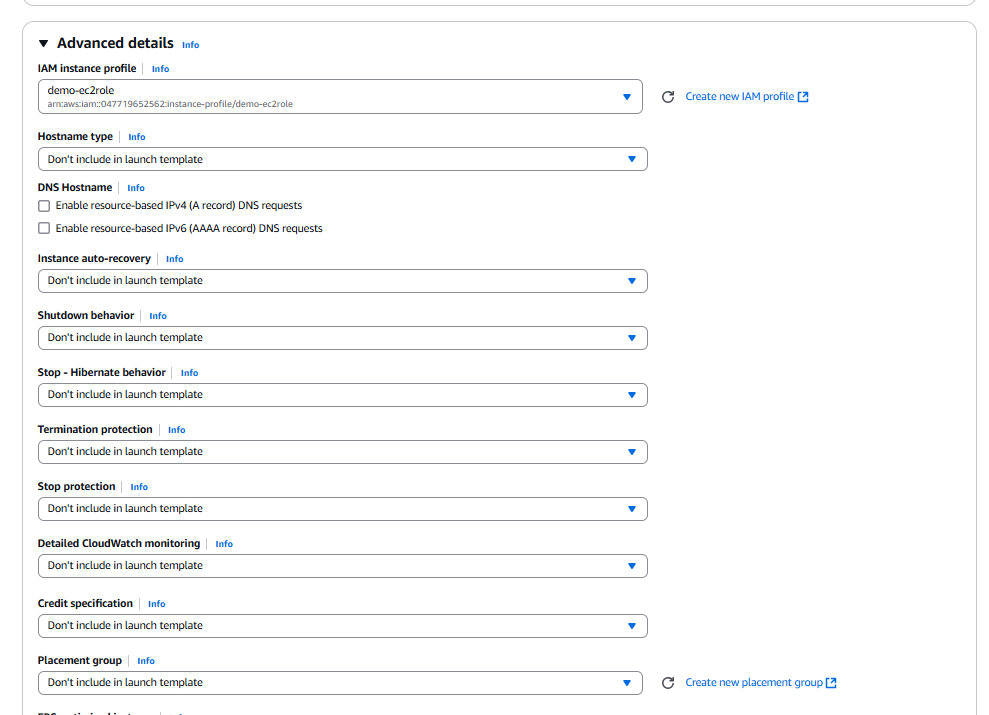
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**Step 3: Internal Load Balancer**

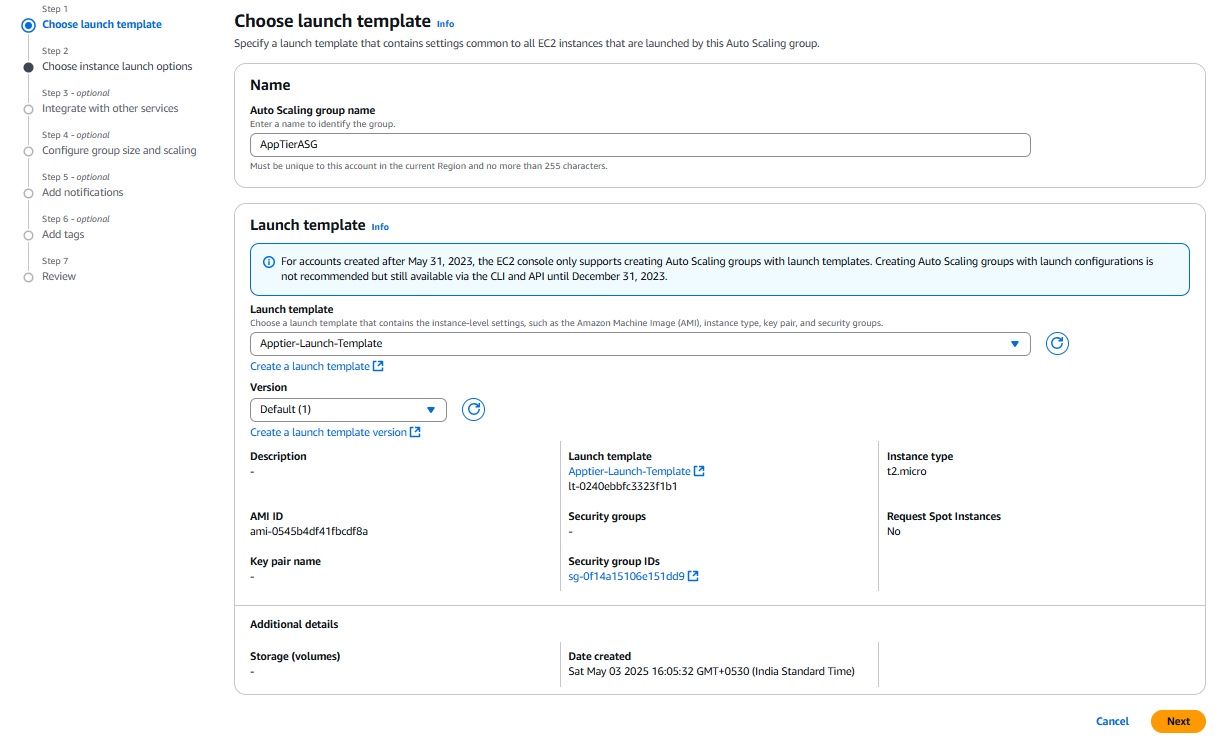
**-Launch Template**

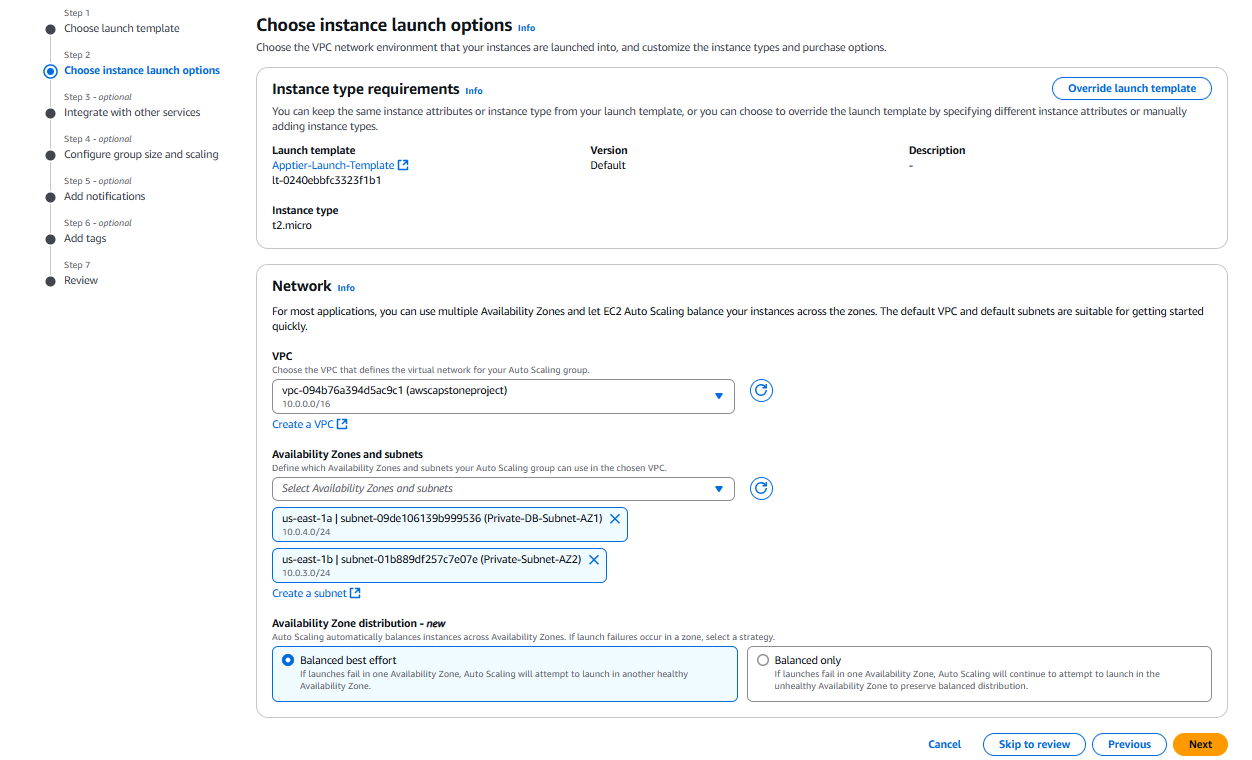
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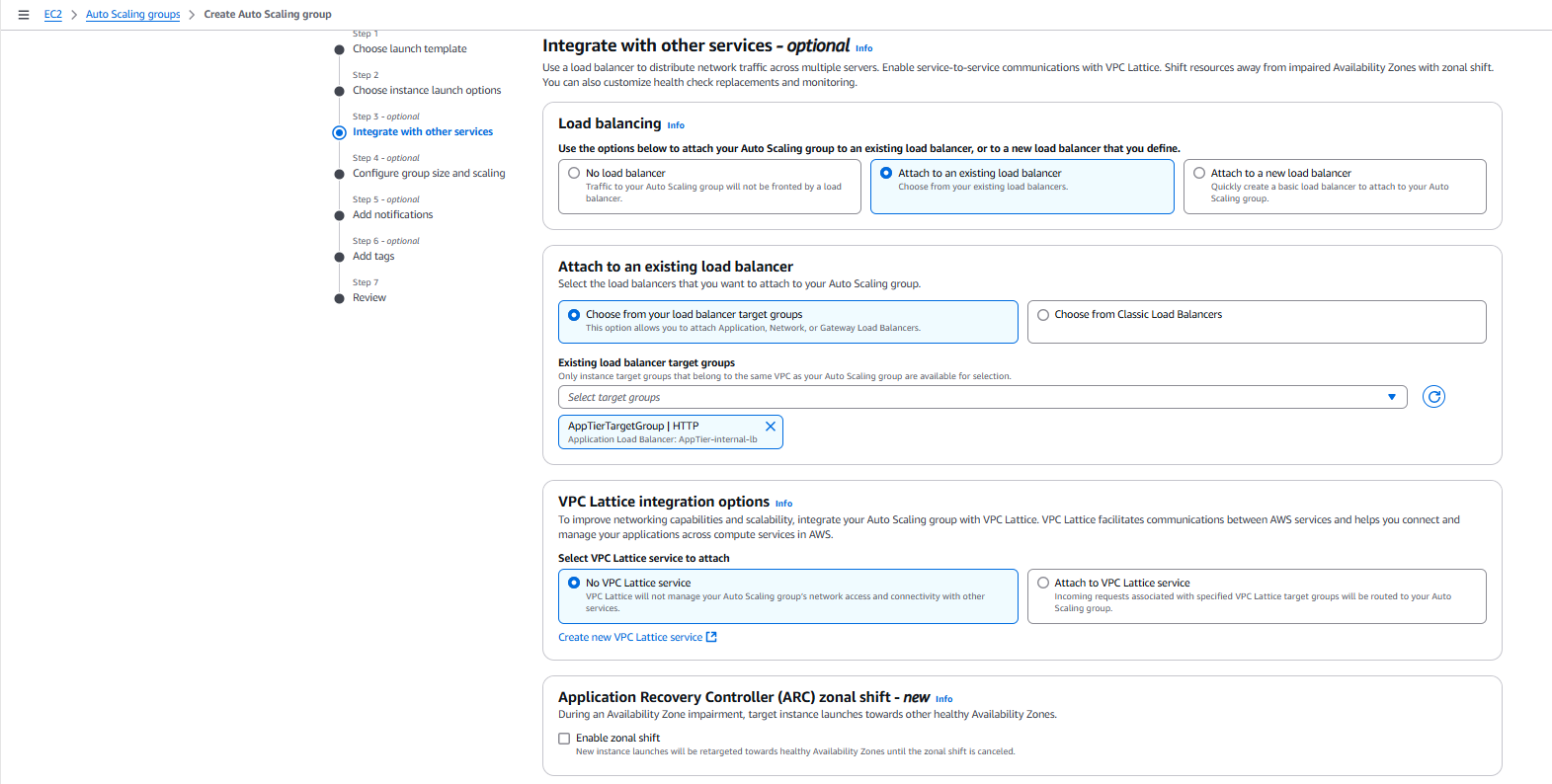
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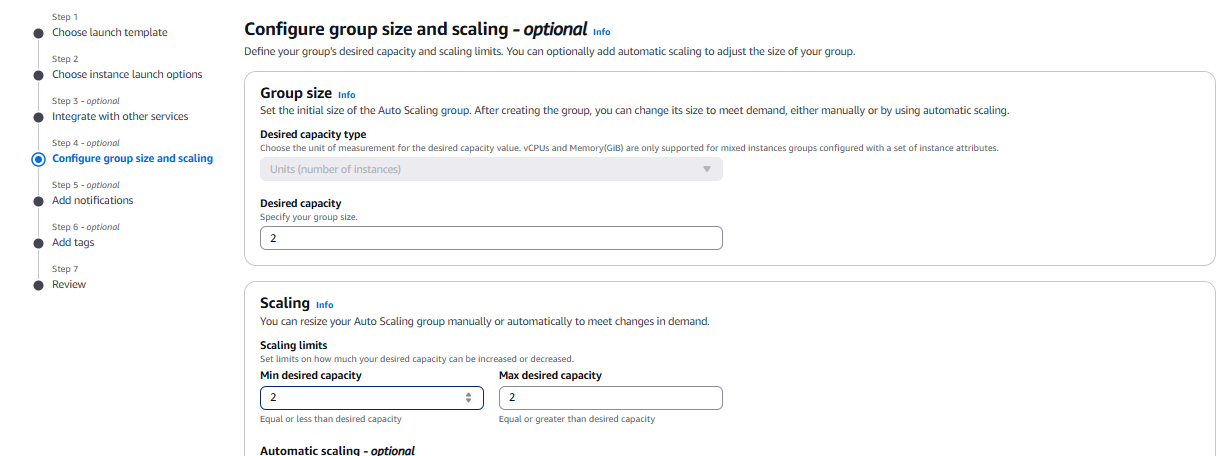
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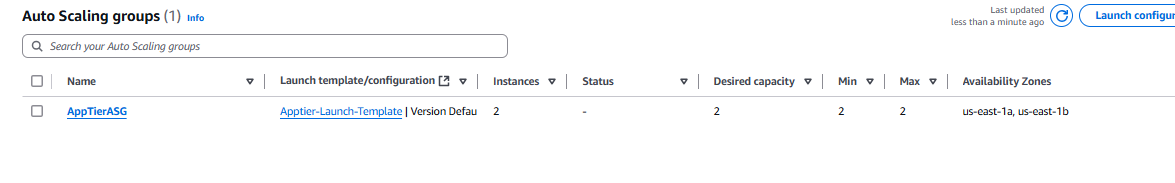
**Step 4: Auto Scaling**

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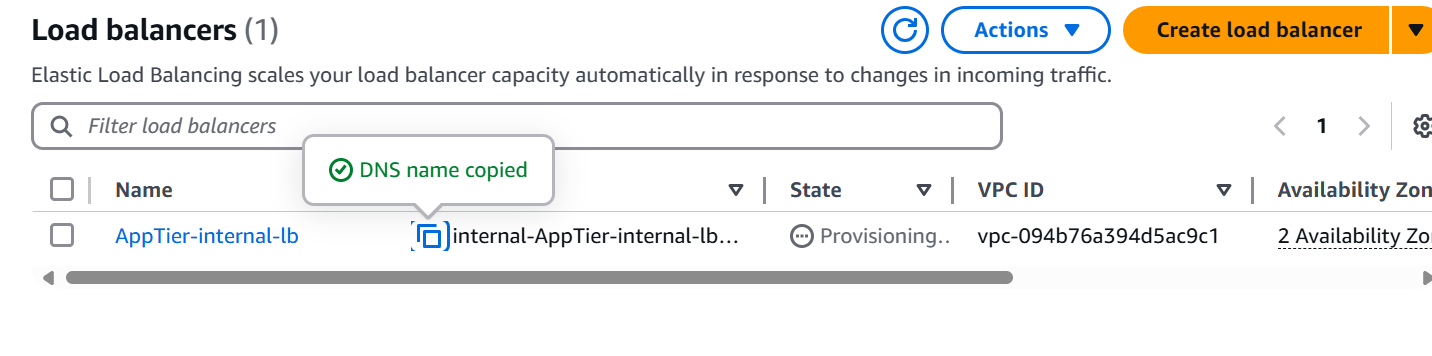
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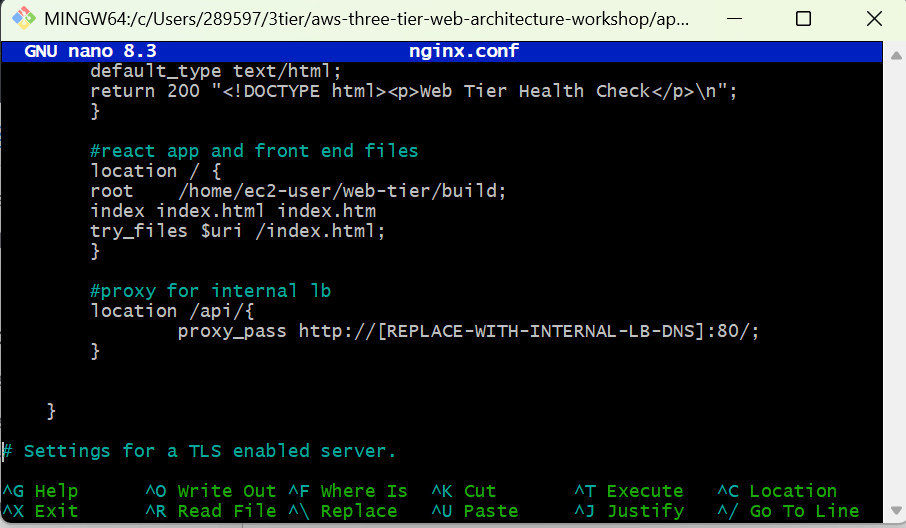
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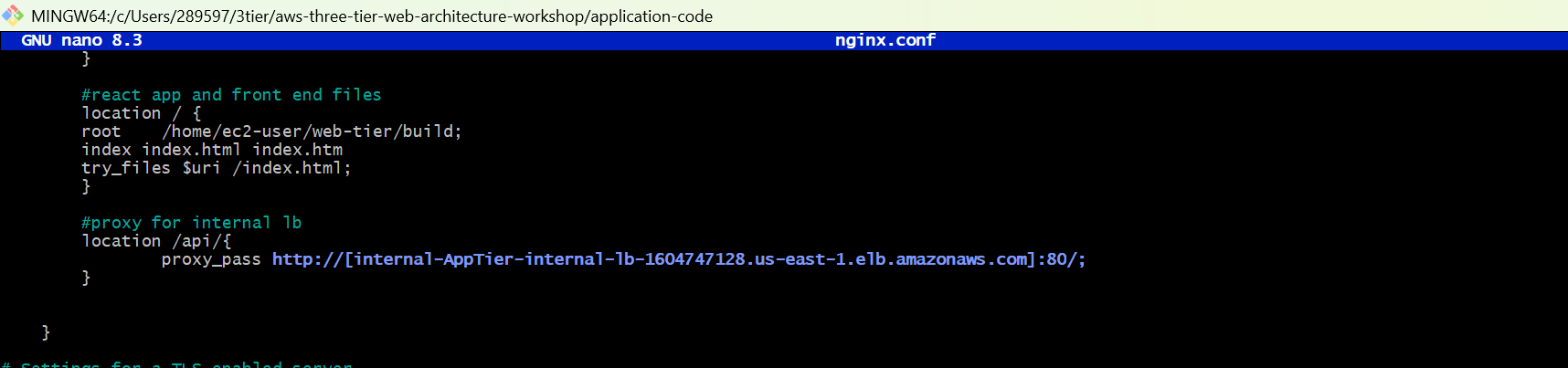
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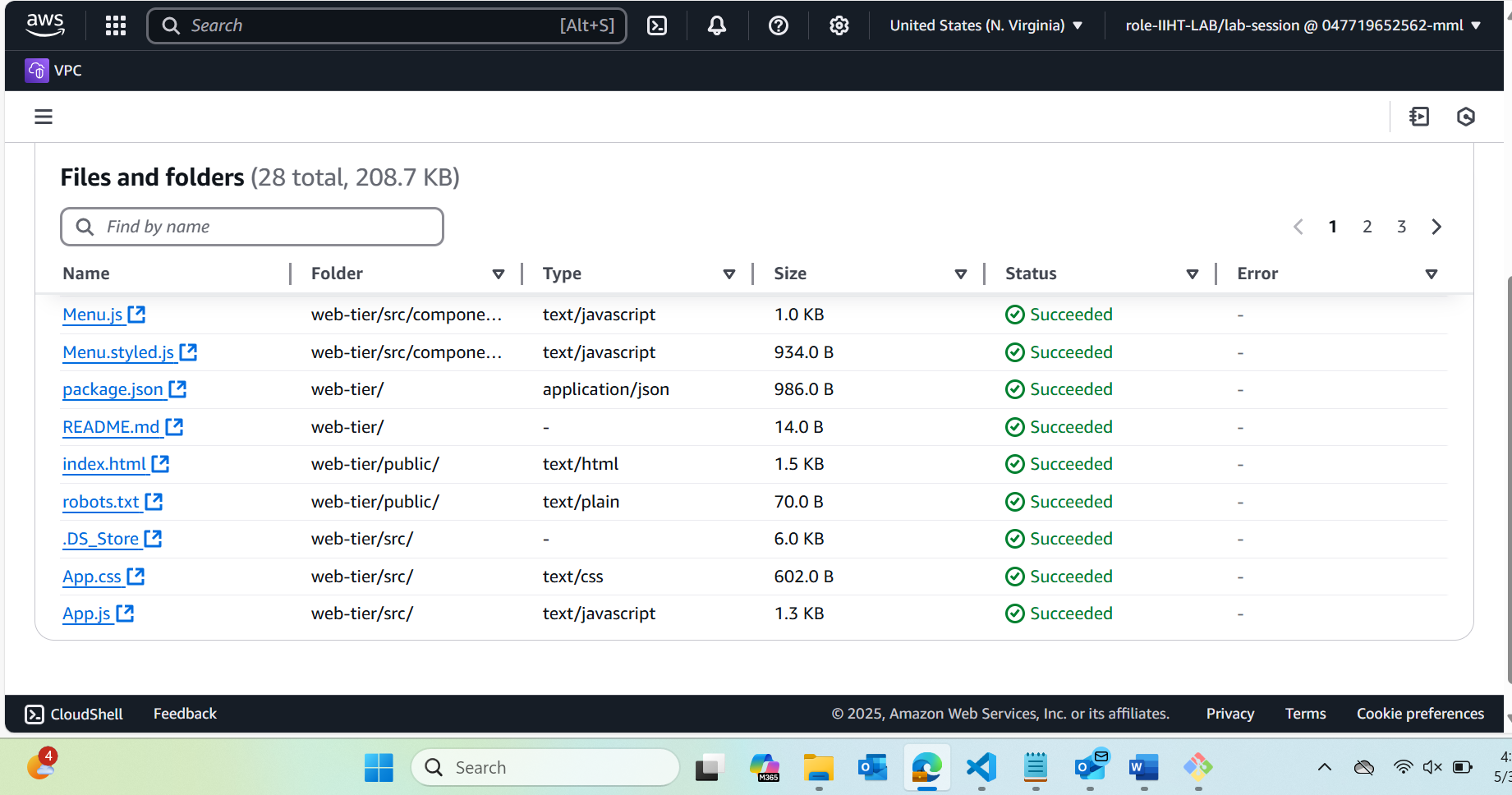
1. **Web Tier Instance Deployment**

**Step 1: Update Config File.**

****

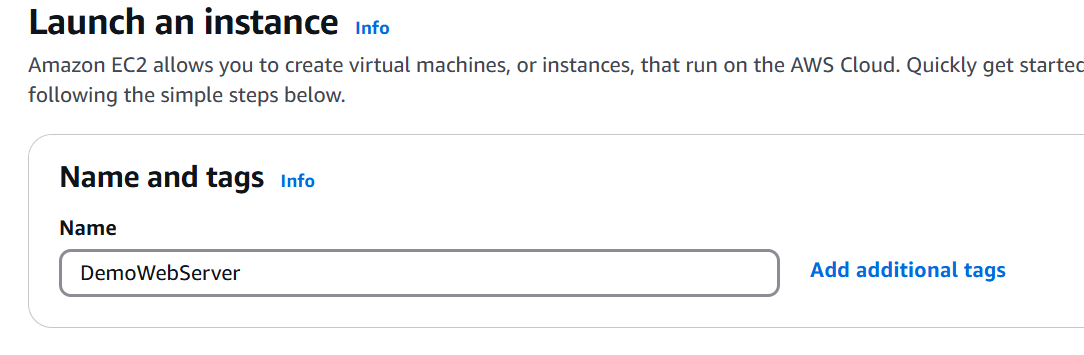
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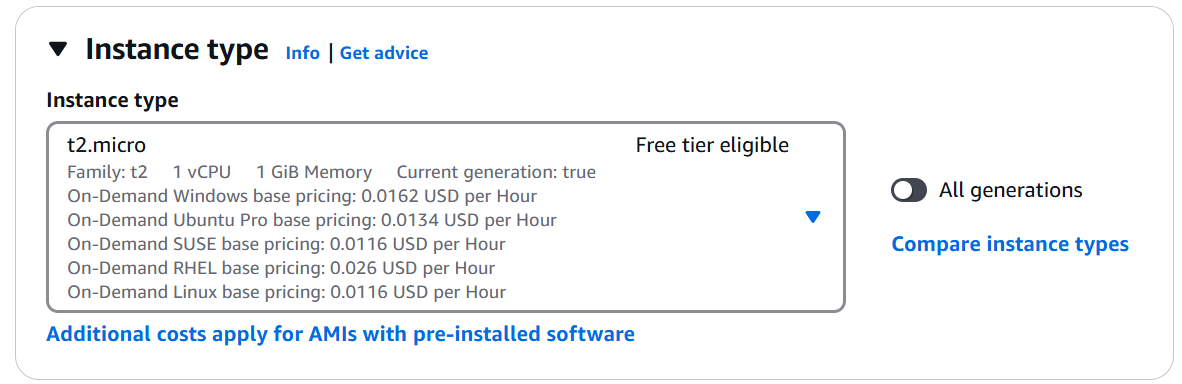
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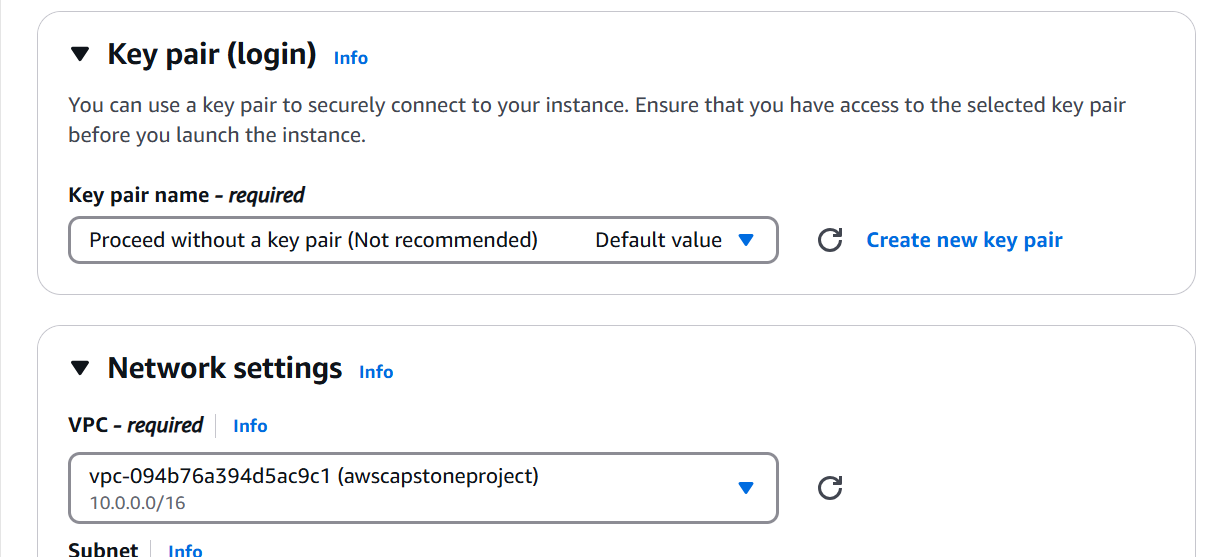
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**-**upload all the webtier and nginx.conf file after editing the DNS in the nginx.conf file.

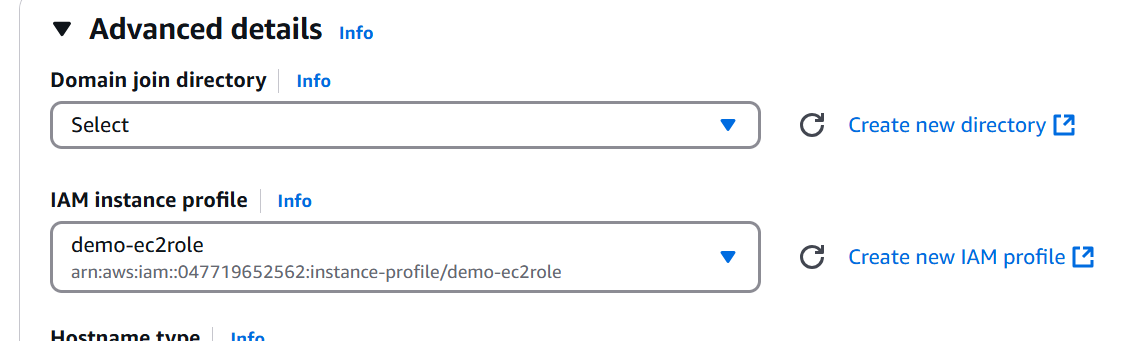
**Step 2: Web Instance Deployment.**

****

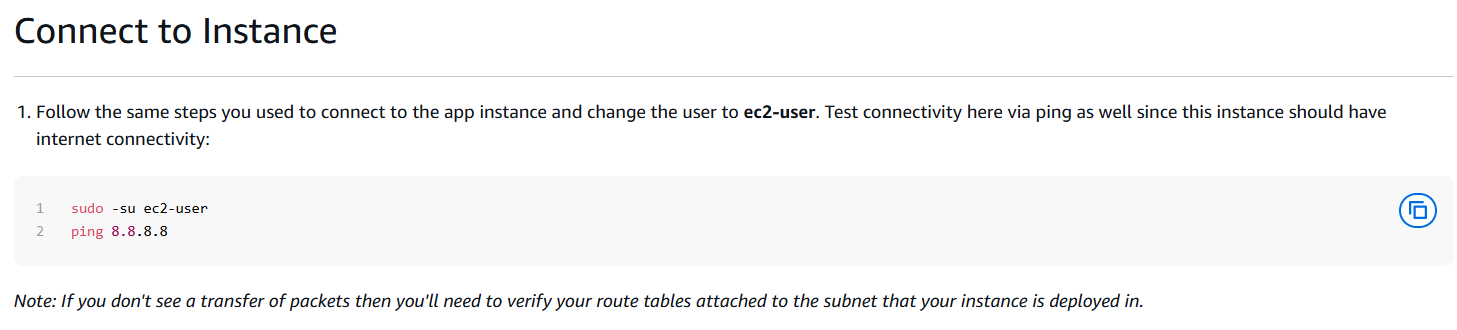
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****

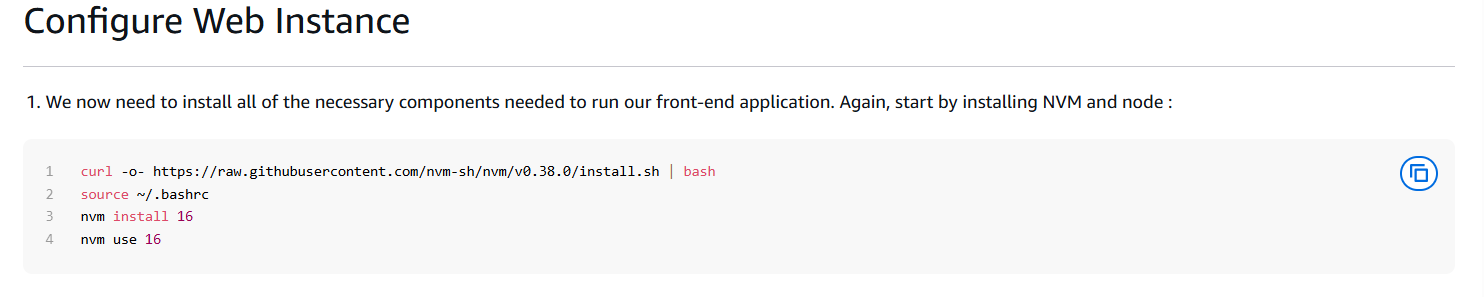
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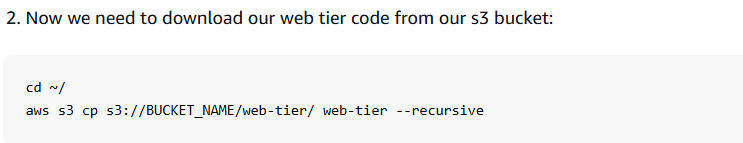
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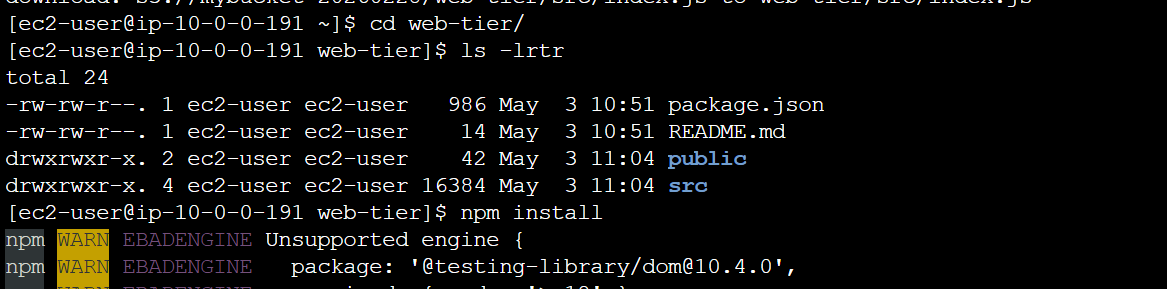
**Step 3: Connect to Instance.**

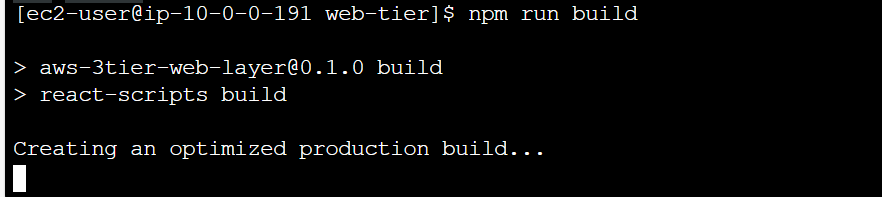
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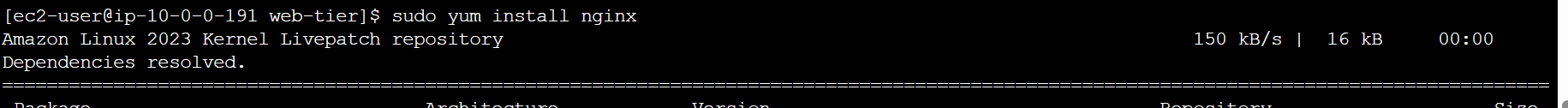
**Step 4: Configure Web Instance**

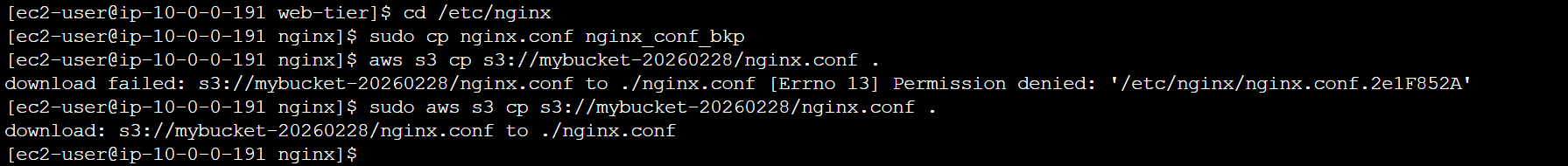
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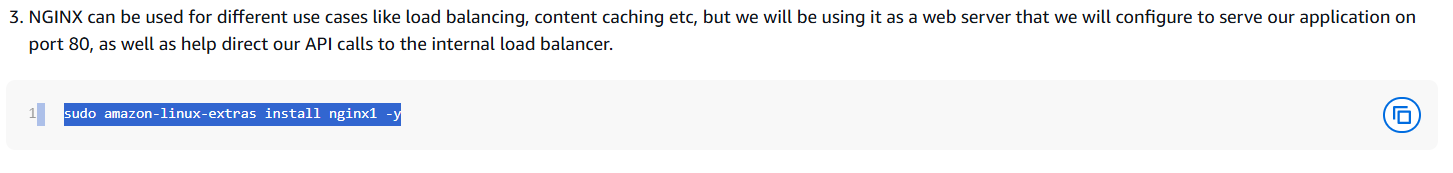
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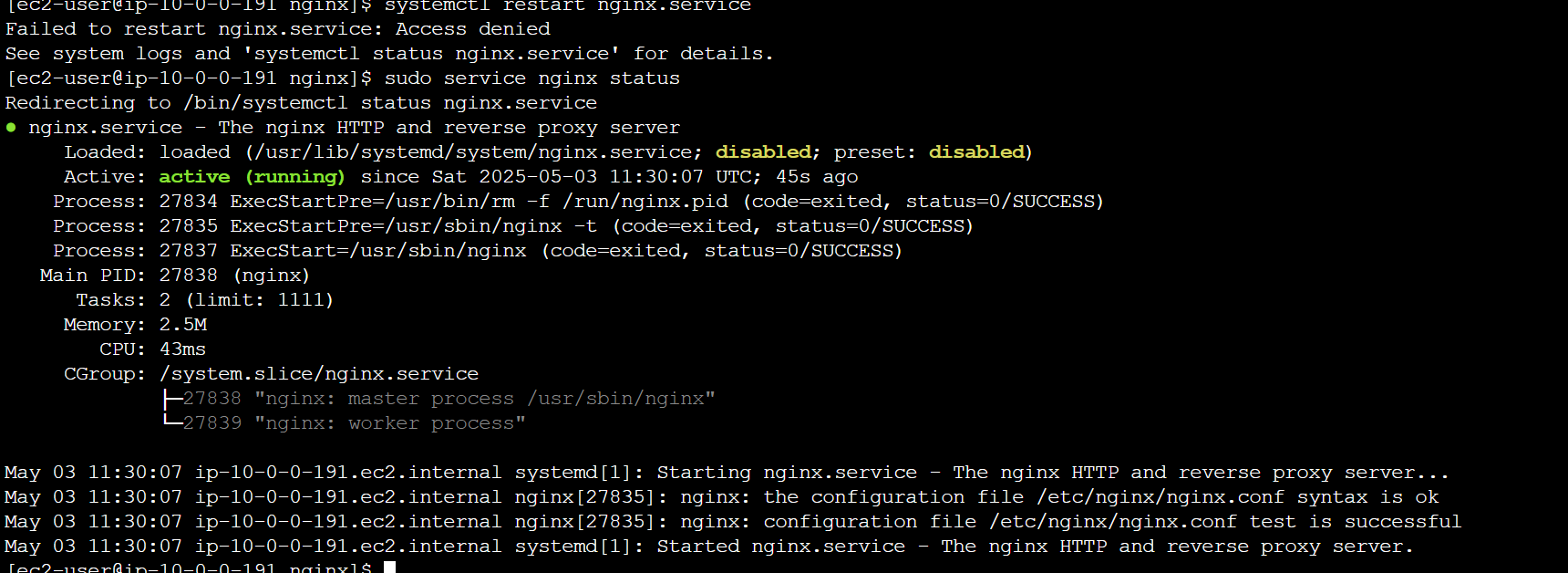
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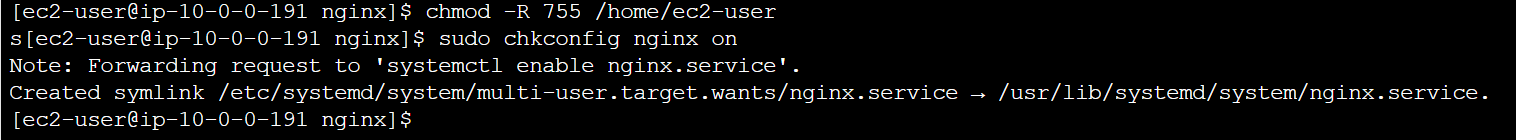
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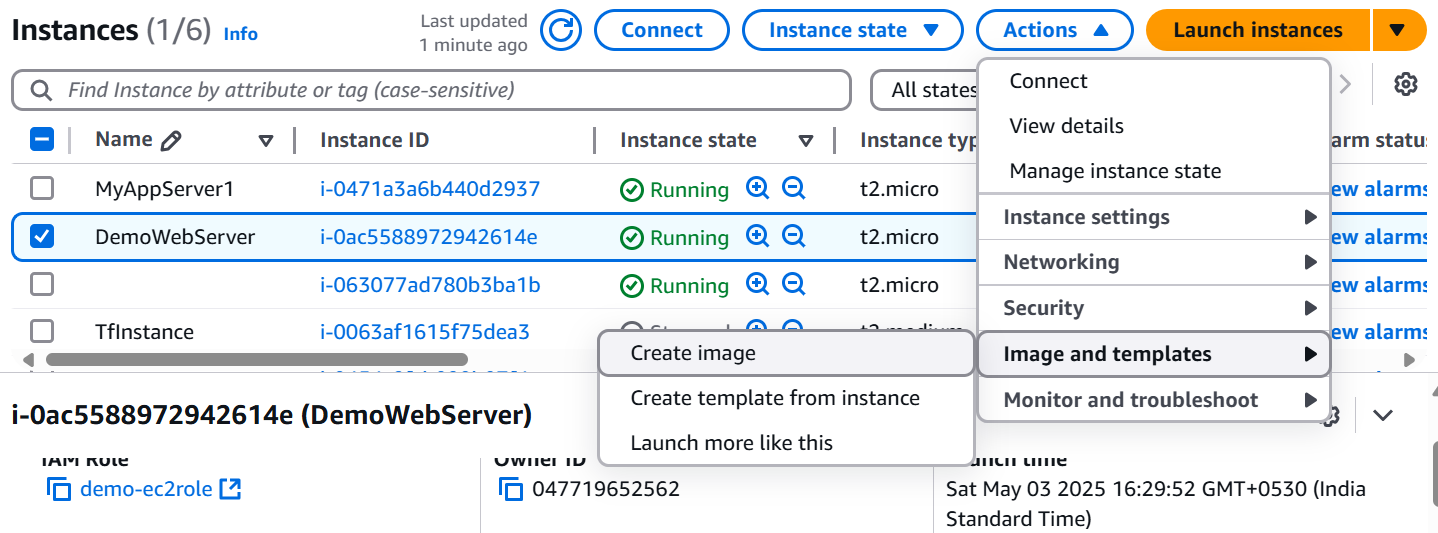
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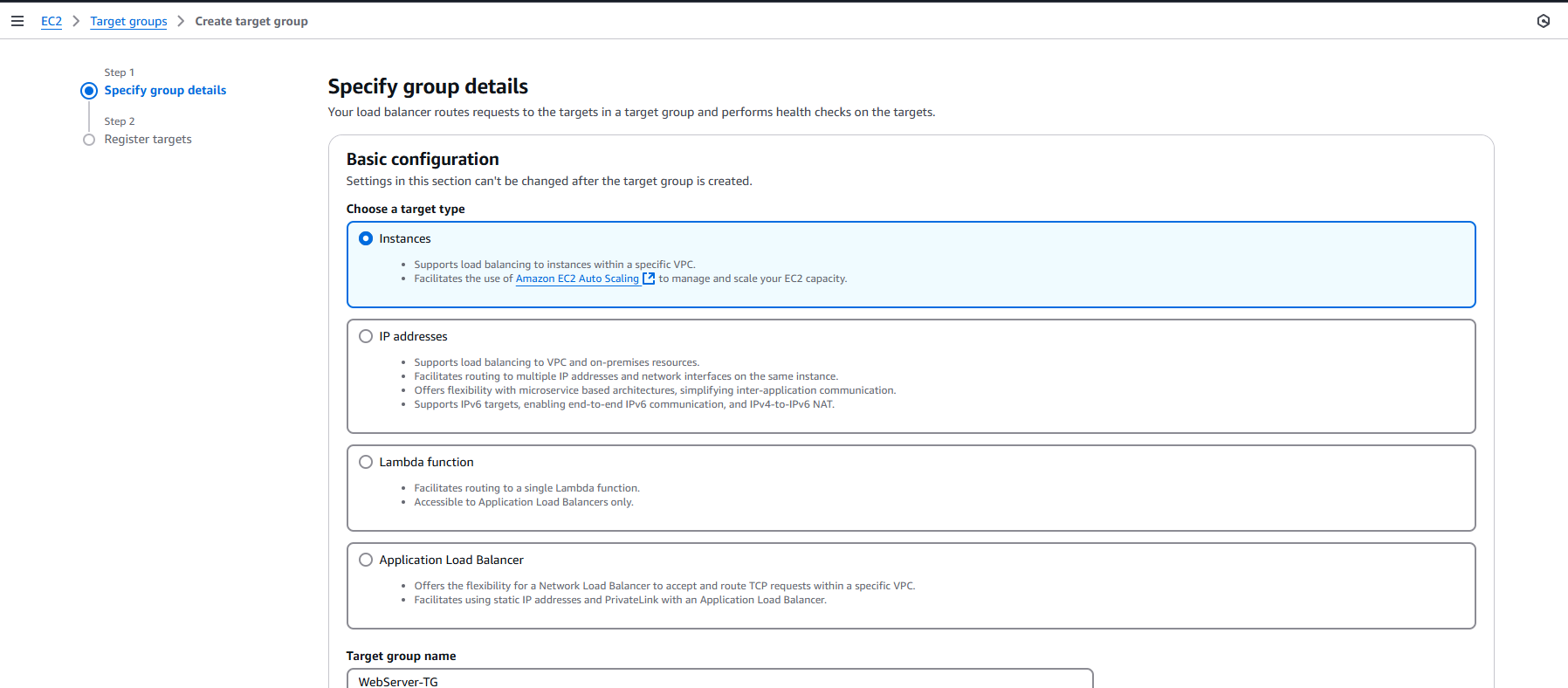
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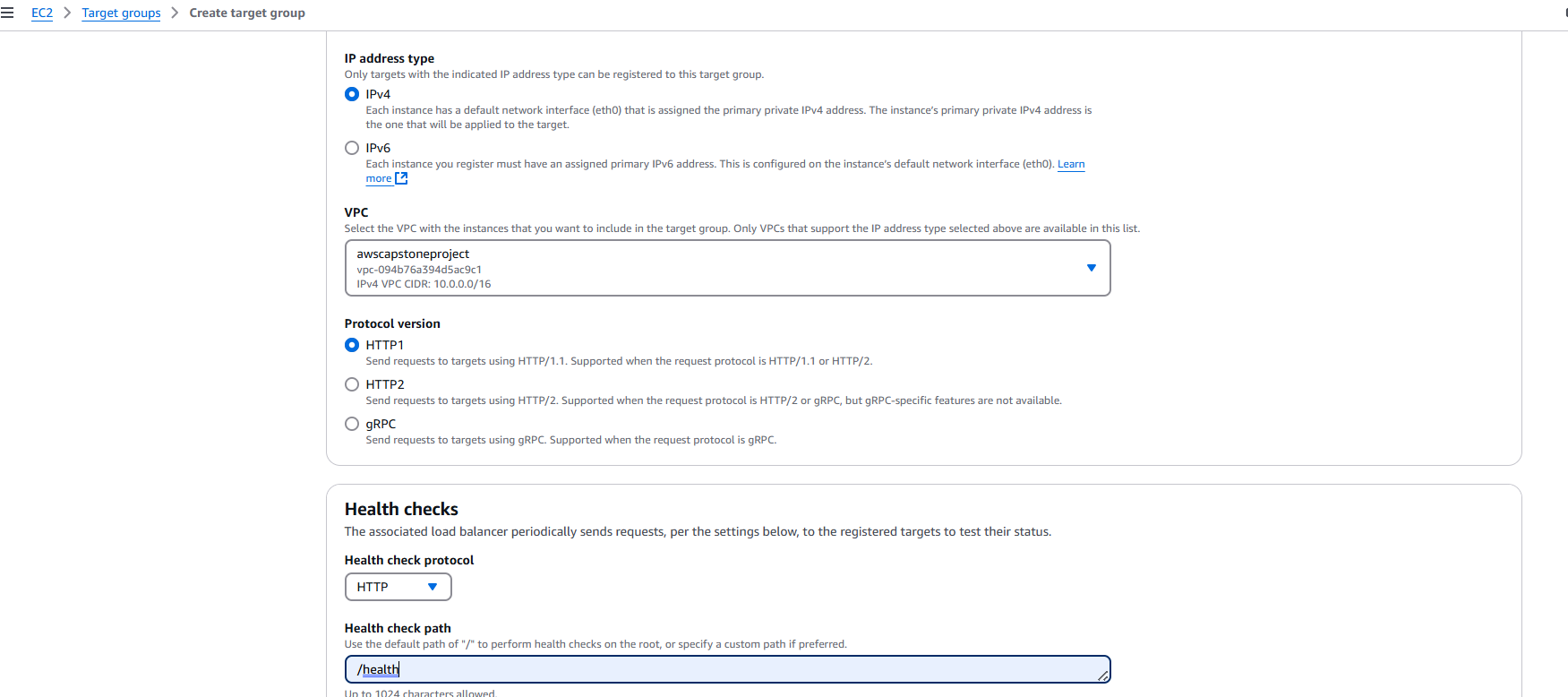
1. **External Load Balancer and Auto Scaling**

**Step 1: Web Tier AMI**

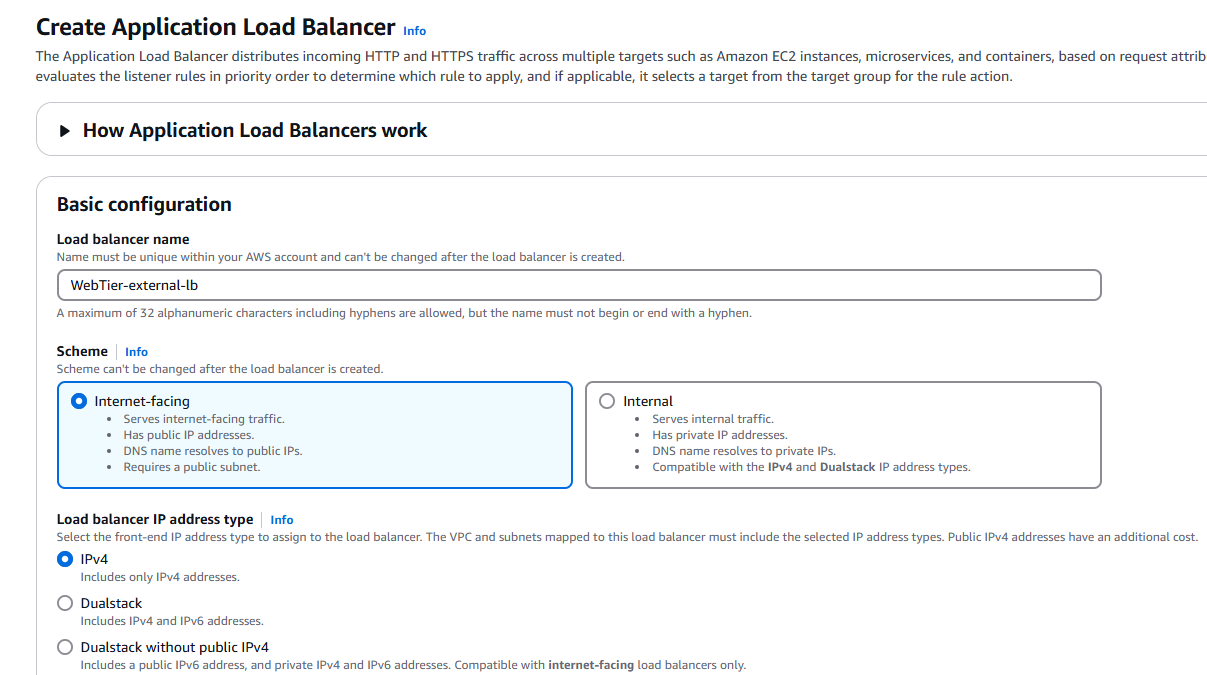
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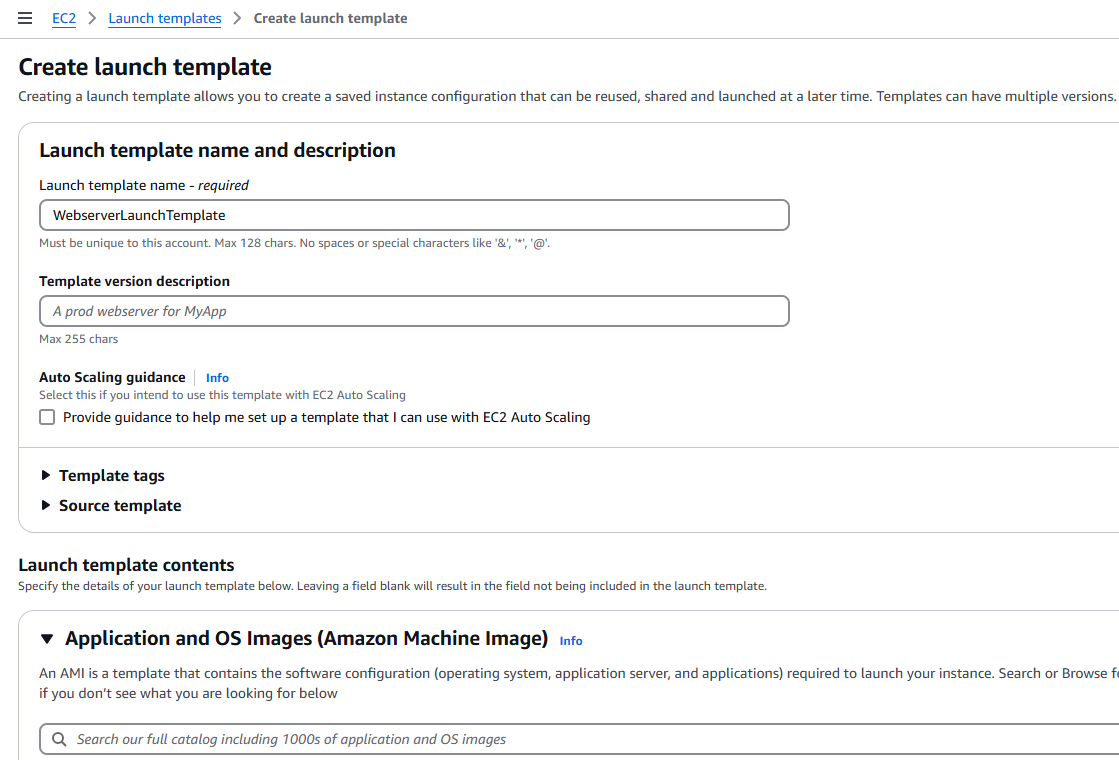
**Step 2: Target Group**

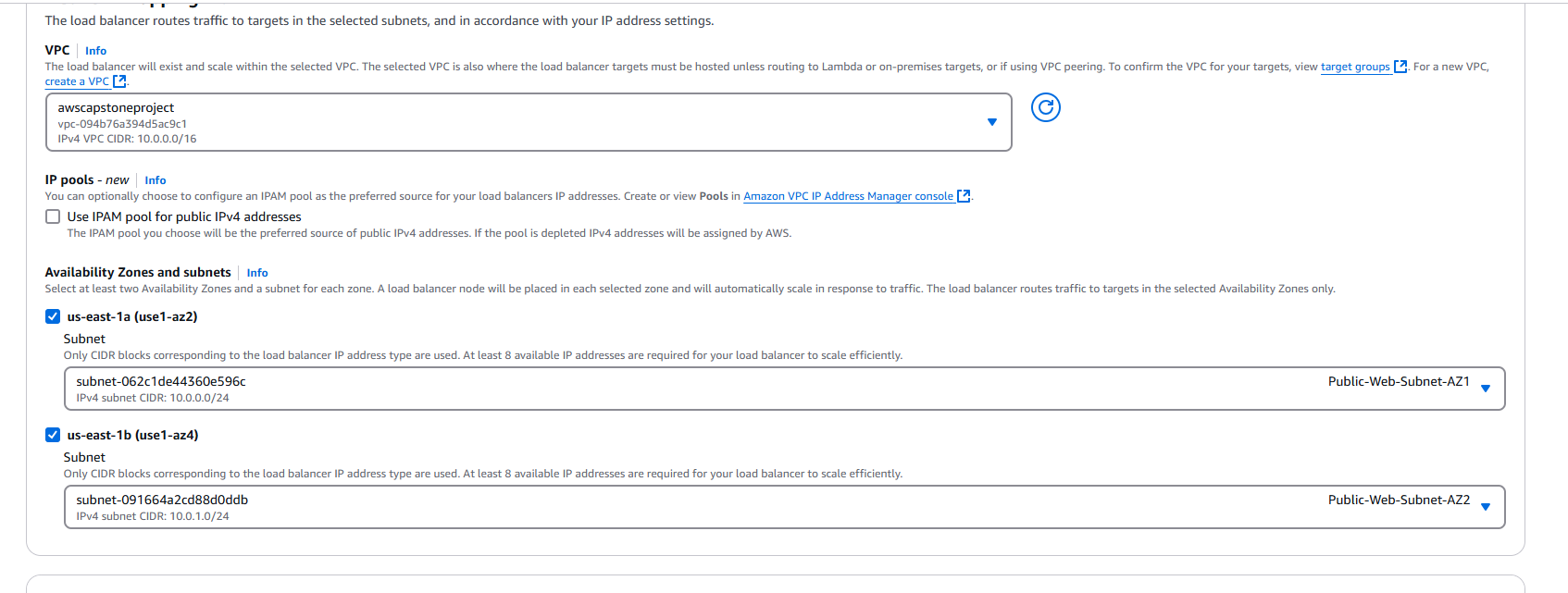
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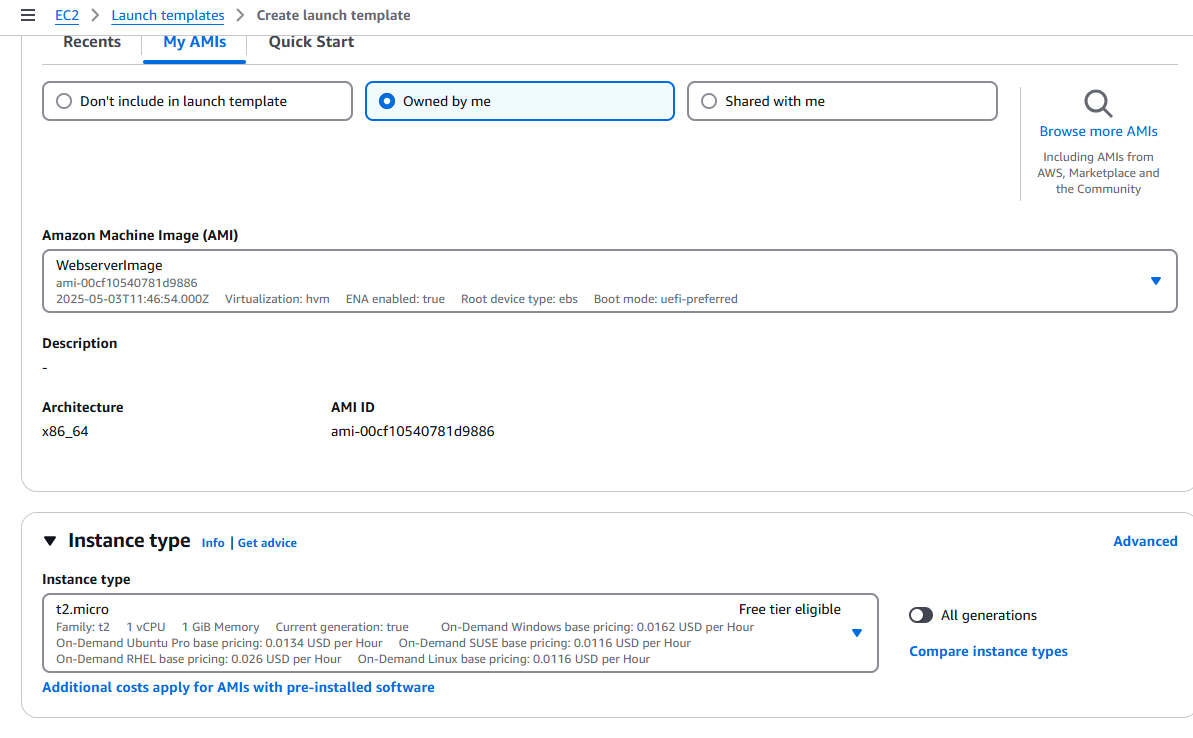
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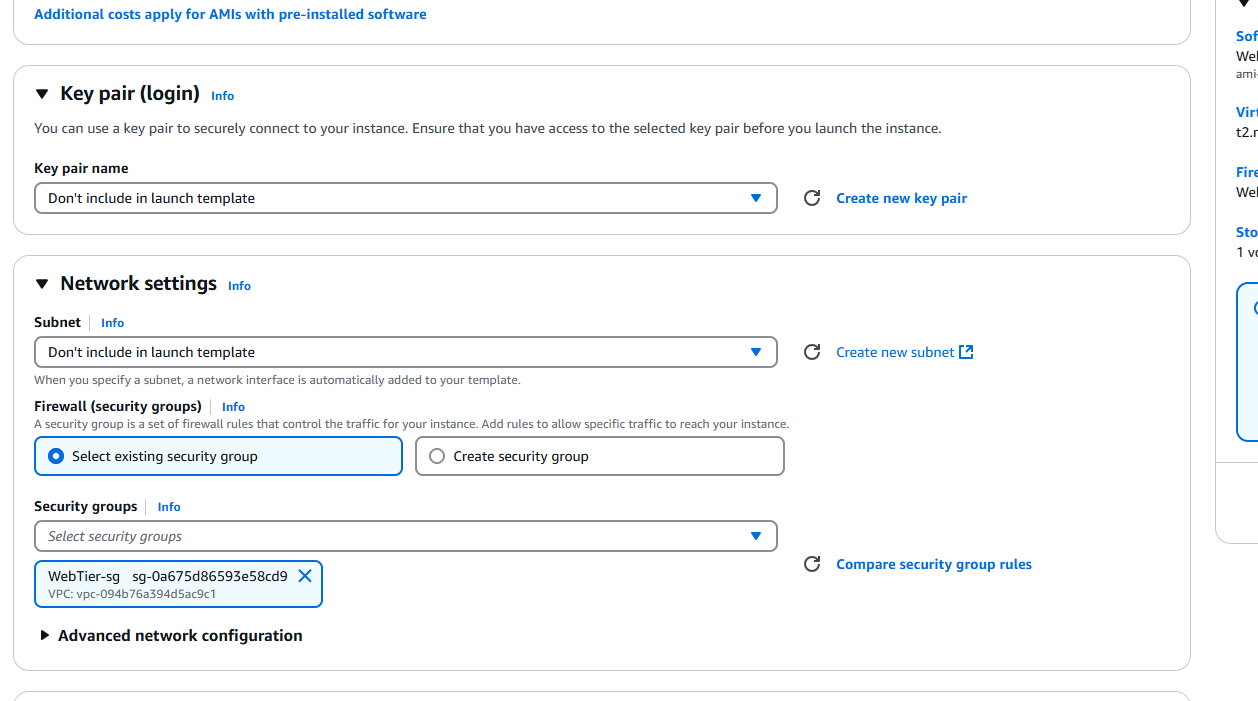
**Step 3: Internet Facing Load Balancer.**

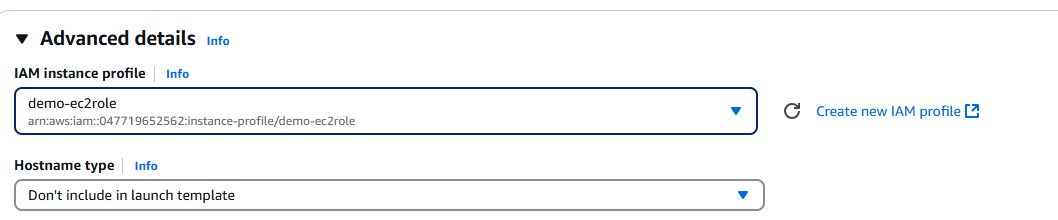
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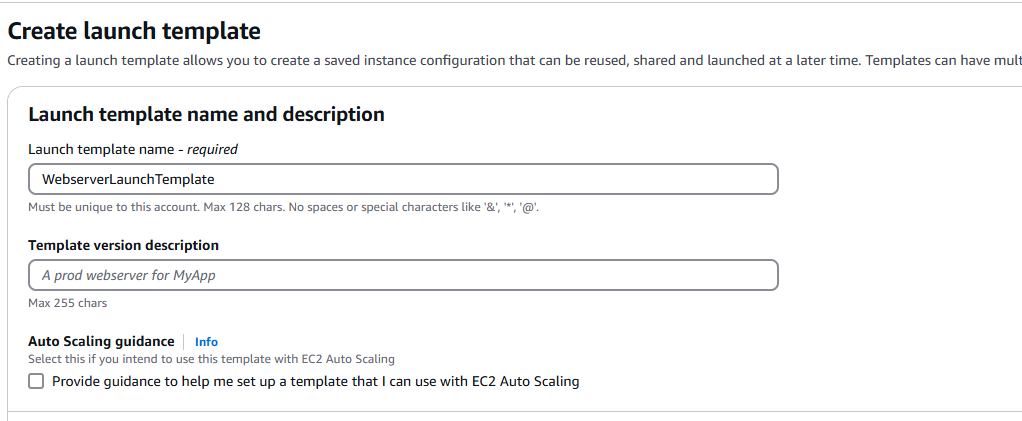
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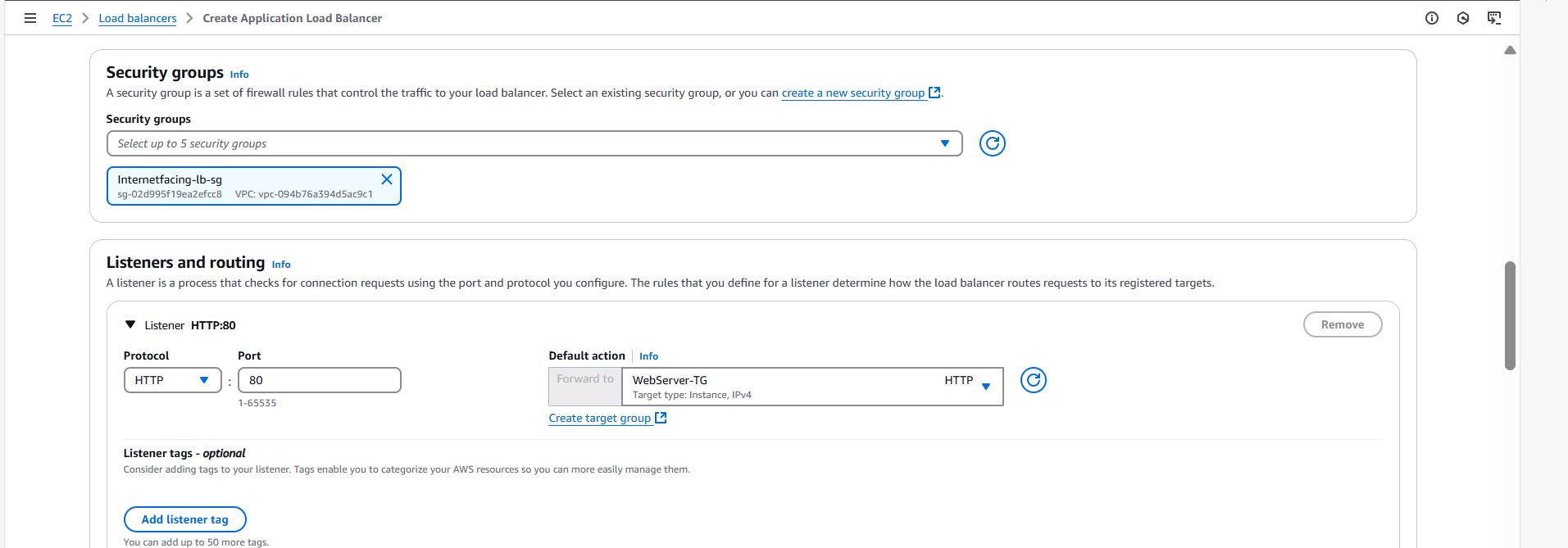
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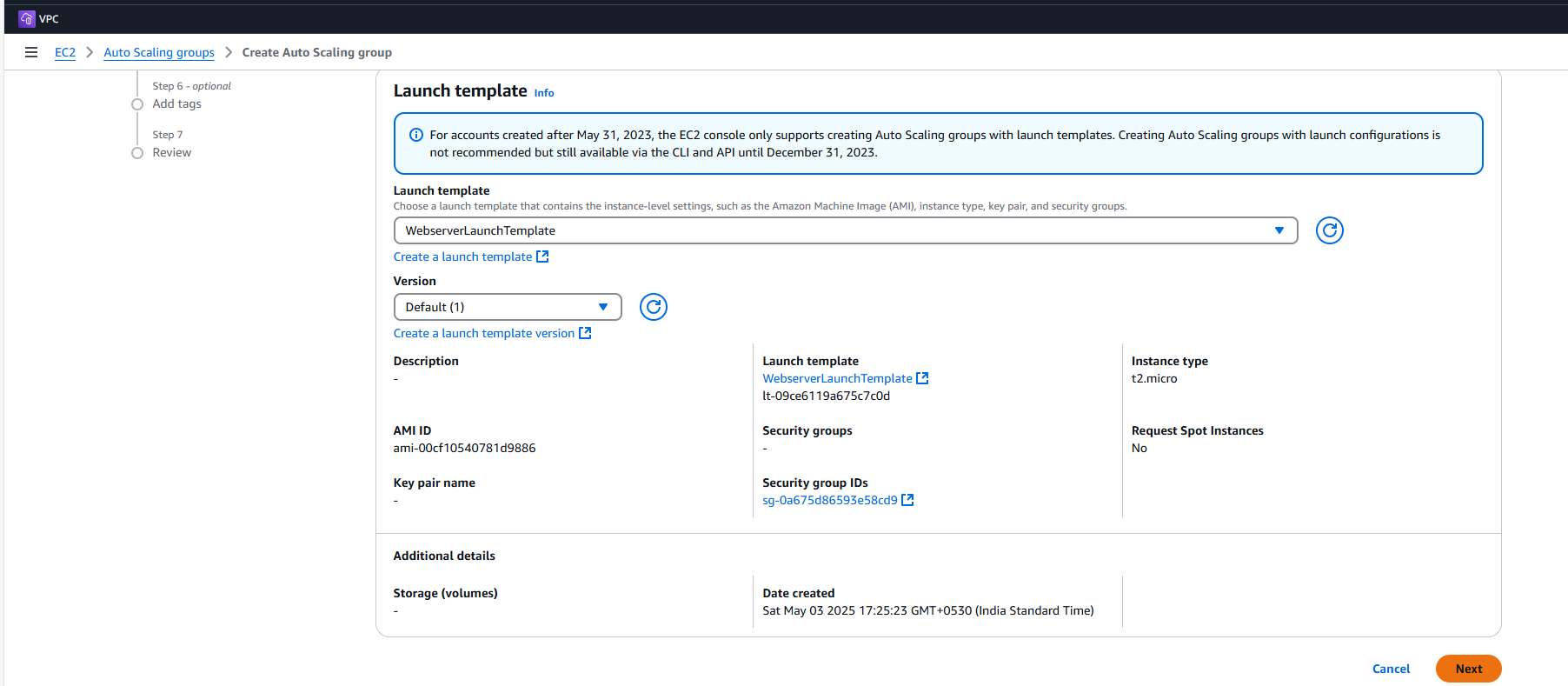
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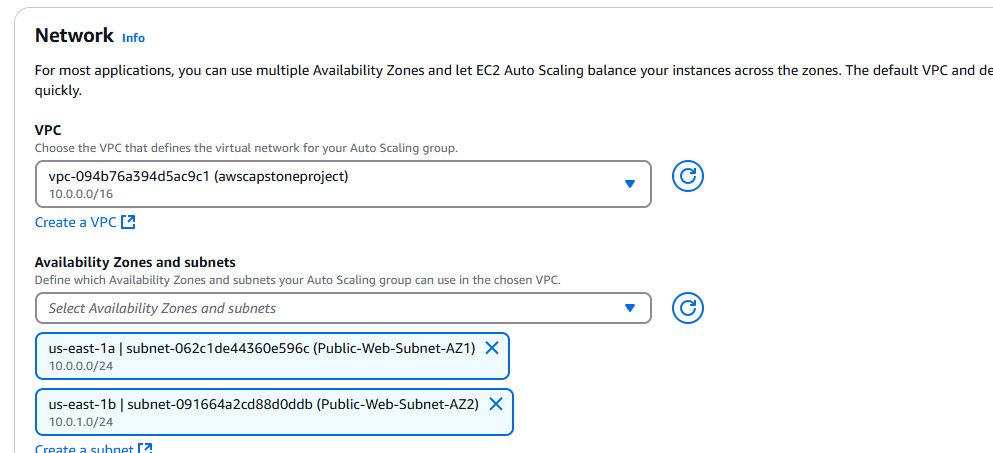
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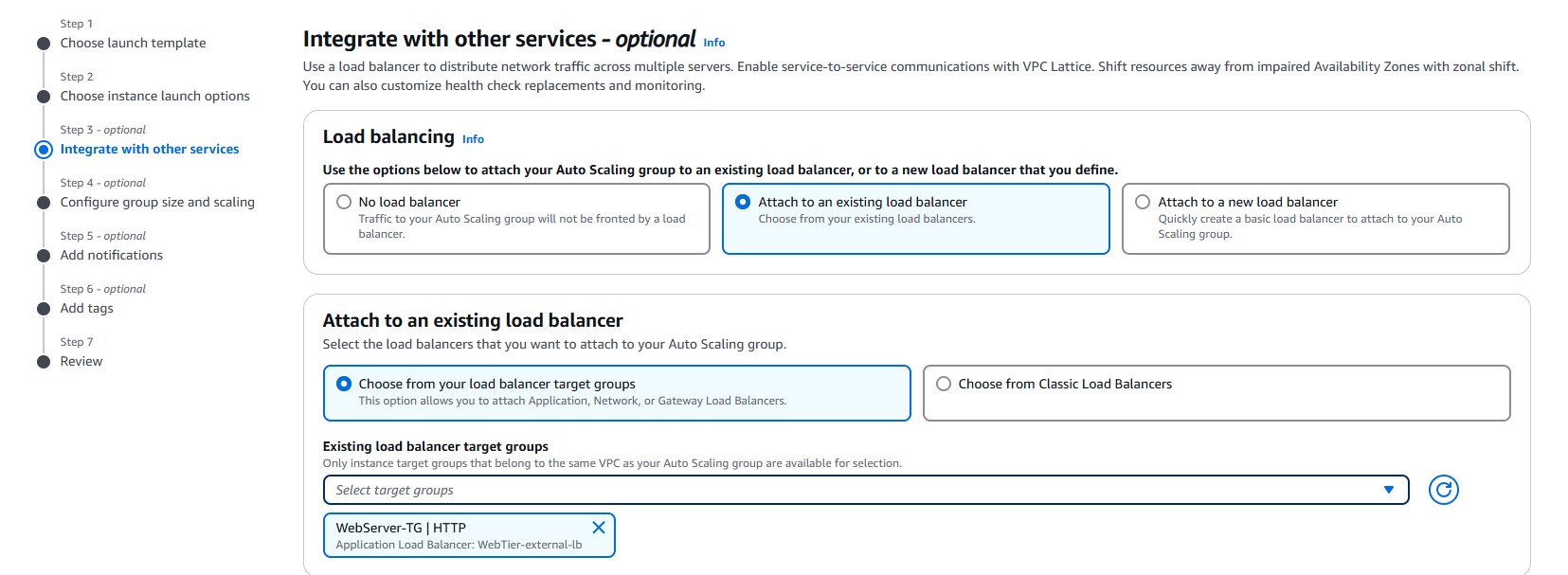
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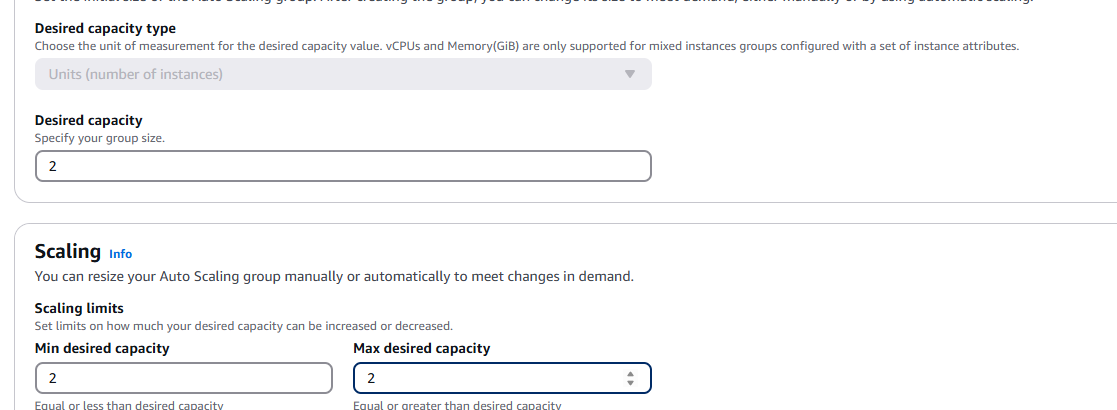
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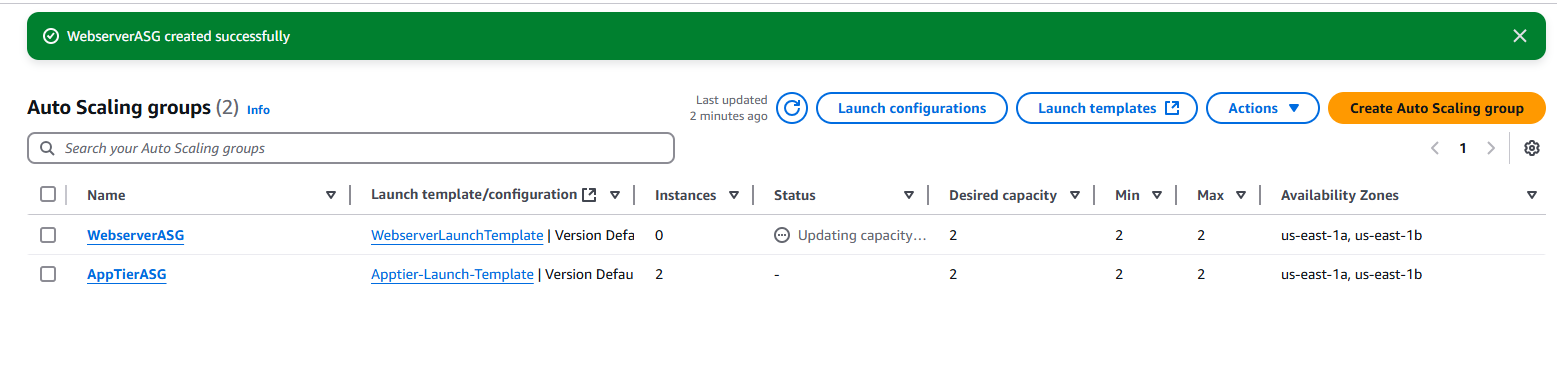
**Create AutoScaling group**

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