ASSIGNMENT -V

WORKING AND IMPLEMENTATION OF INFRASTRUCTURE AS A SERVICE

Launch Your Amazon EC2 Instance.

Write the shell script in the User Data box.

The script will: • Install an Apache web server (httpd)

• Configure the web server to automatically start on boot

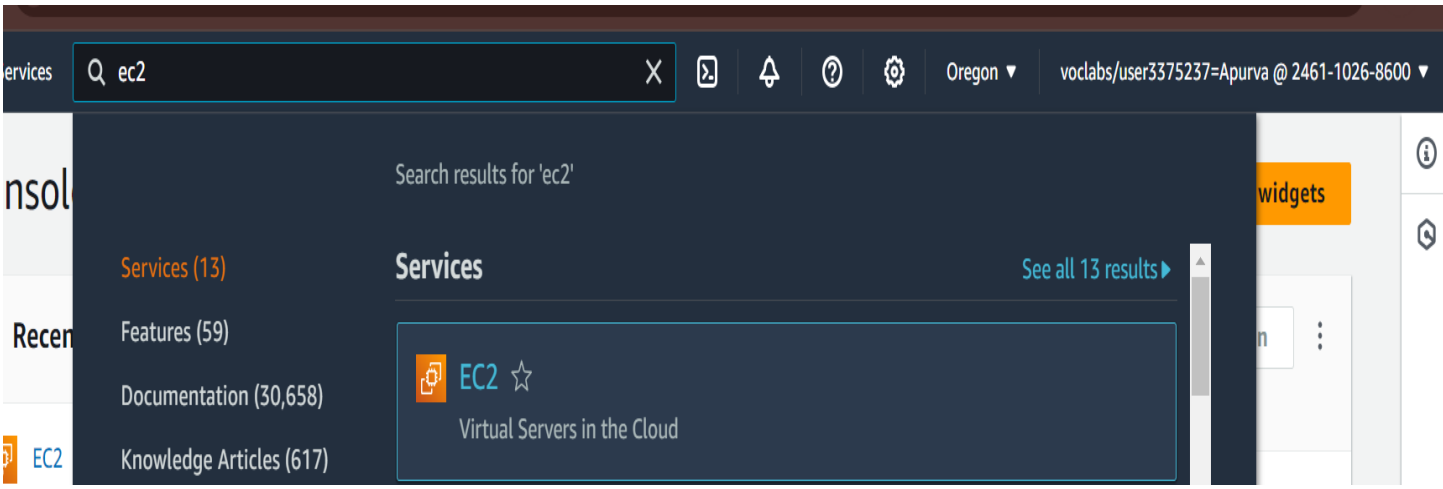
• Run the Web server once it has finished installing

• Create a simple web page

Step 1: Launch Your Amazon EC2 Instance

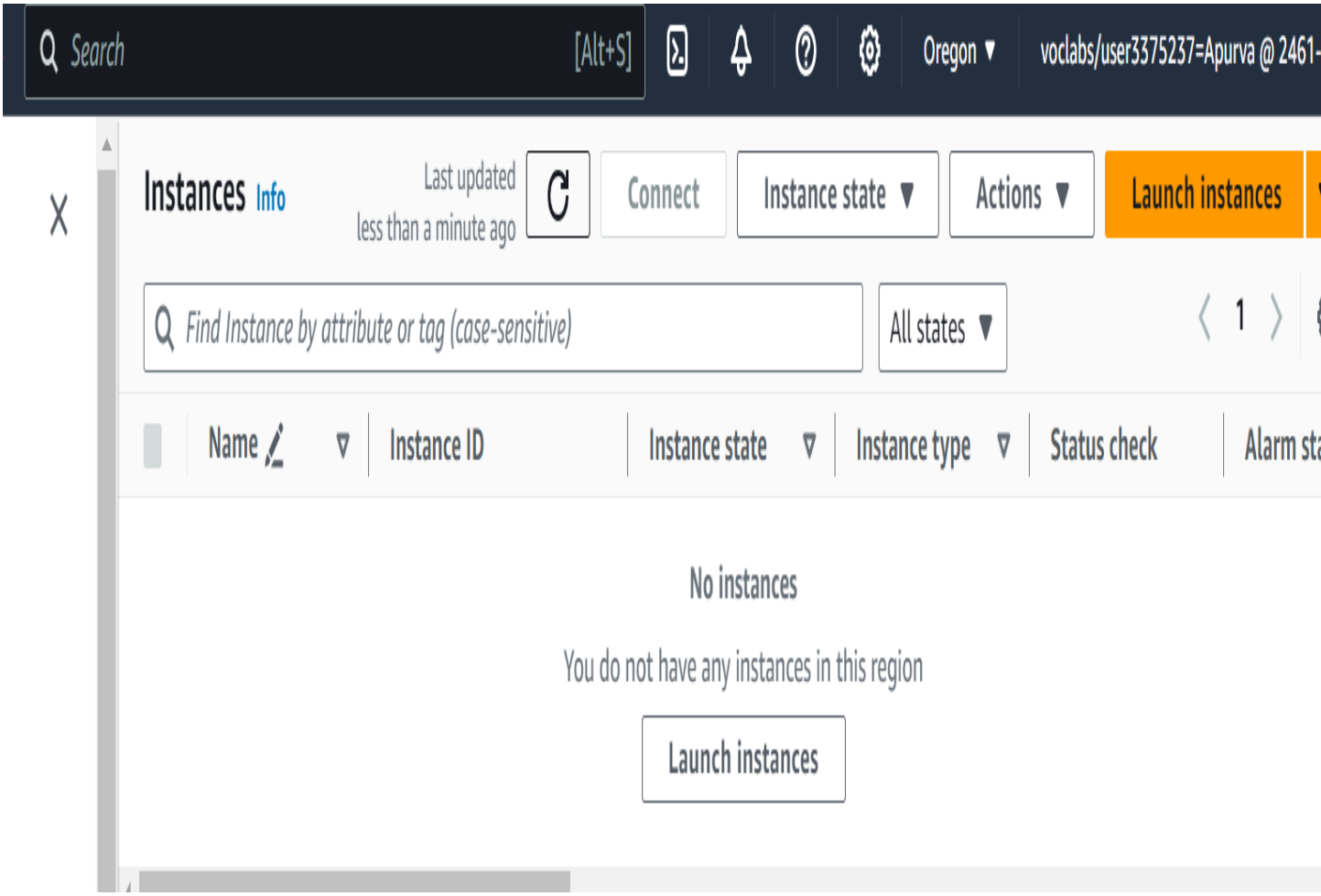
1. Open the AWS Management Console:

   - Go to Services > EC2.

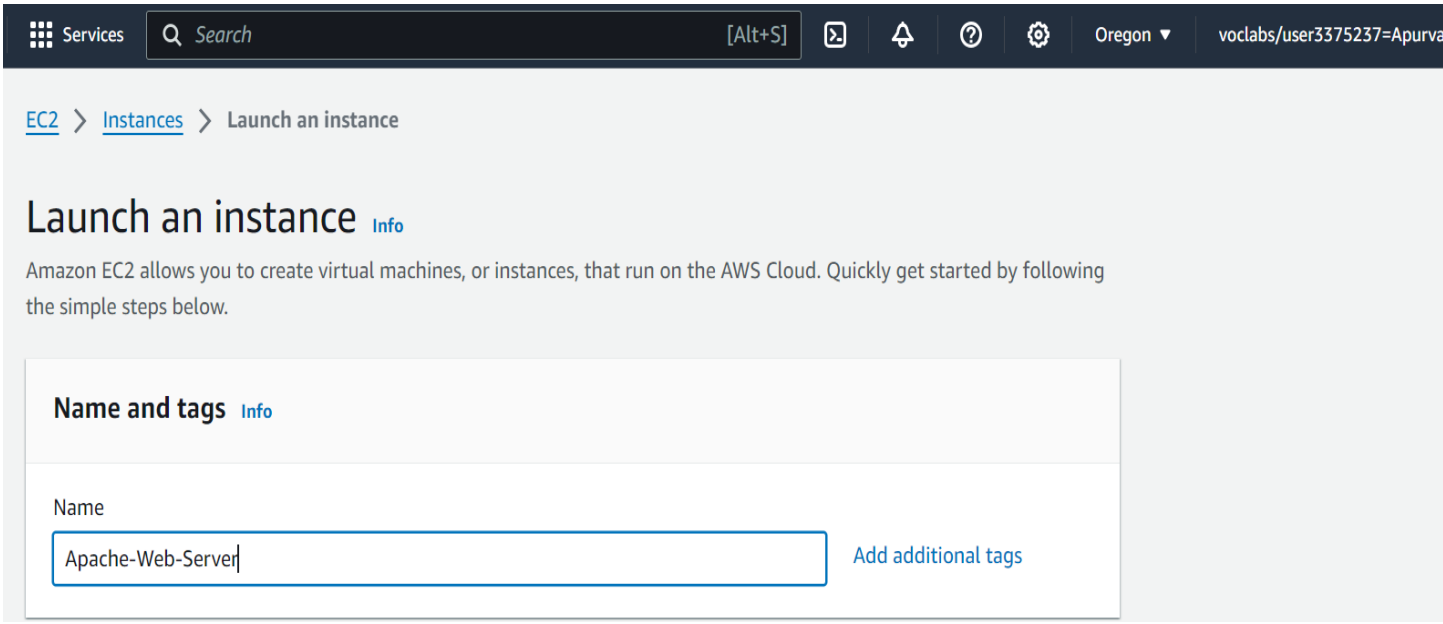


2. Launch an EC2 Instance:

- Click on Launch Instance.

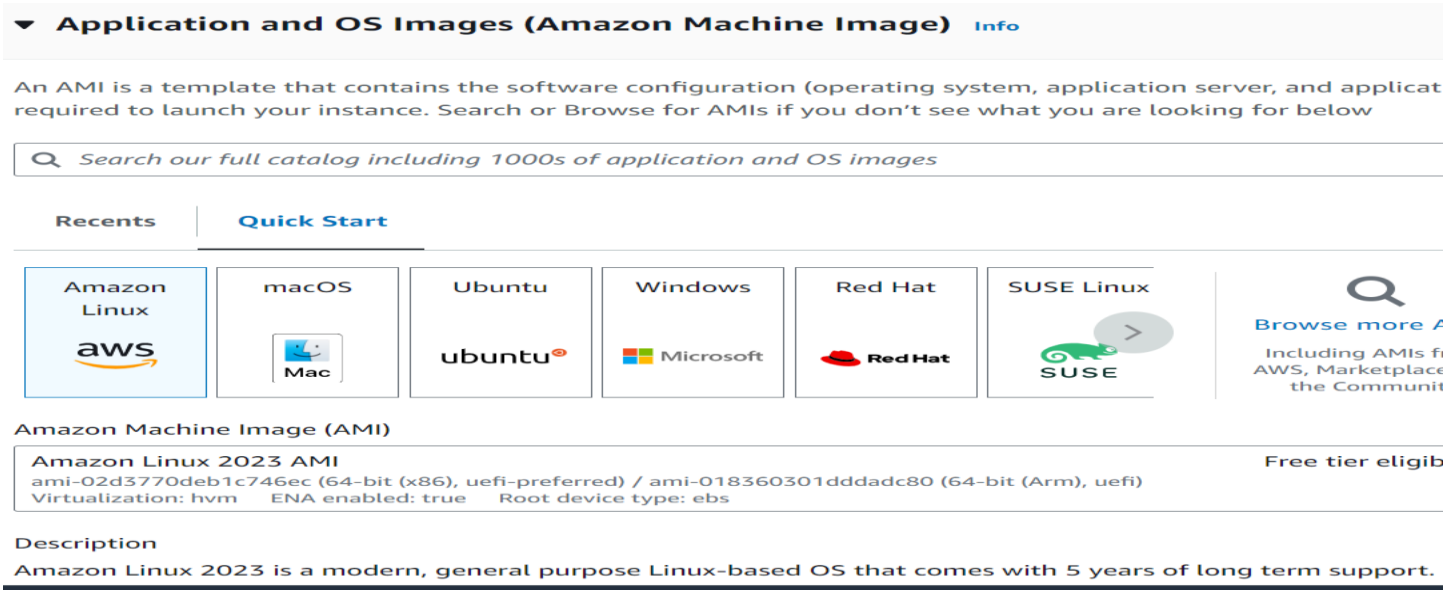


- Name: Enter a name for your instance, e.g., "Apache-Web-Server".



3. Choose an AMI:

- Select Amazon Linux 2023 AMI.

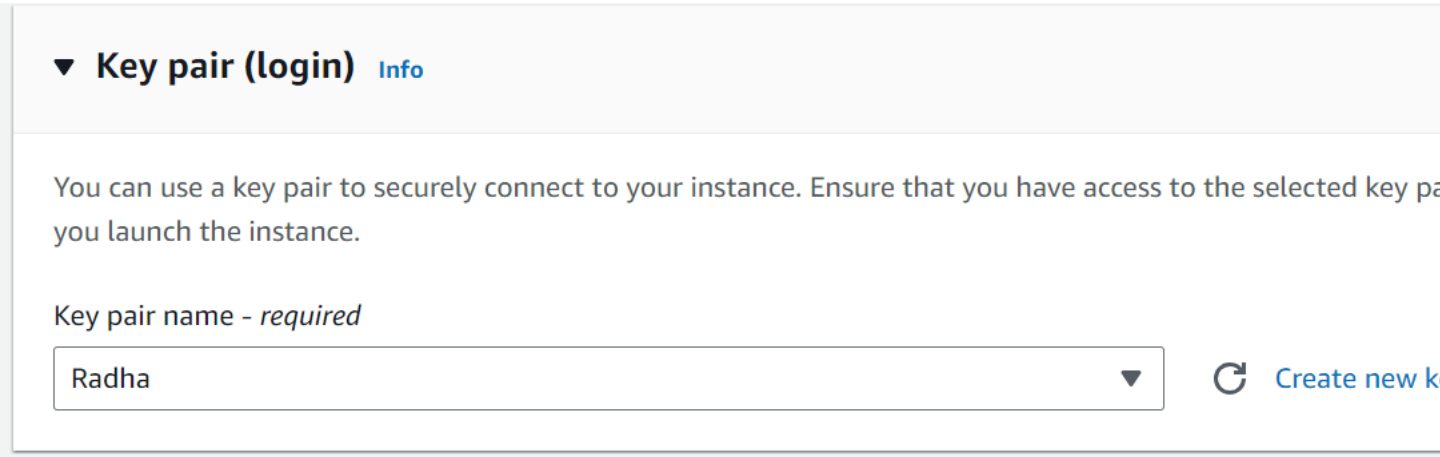


4. Select Instance Type:

- Choose the instance type, e.g., t2.micro(eligible for the free tier).

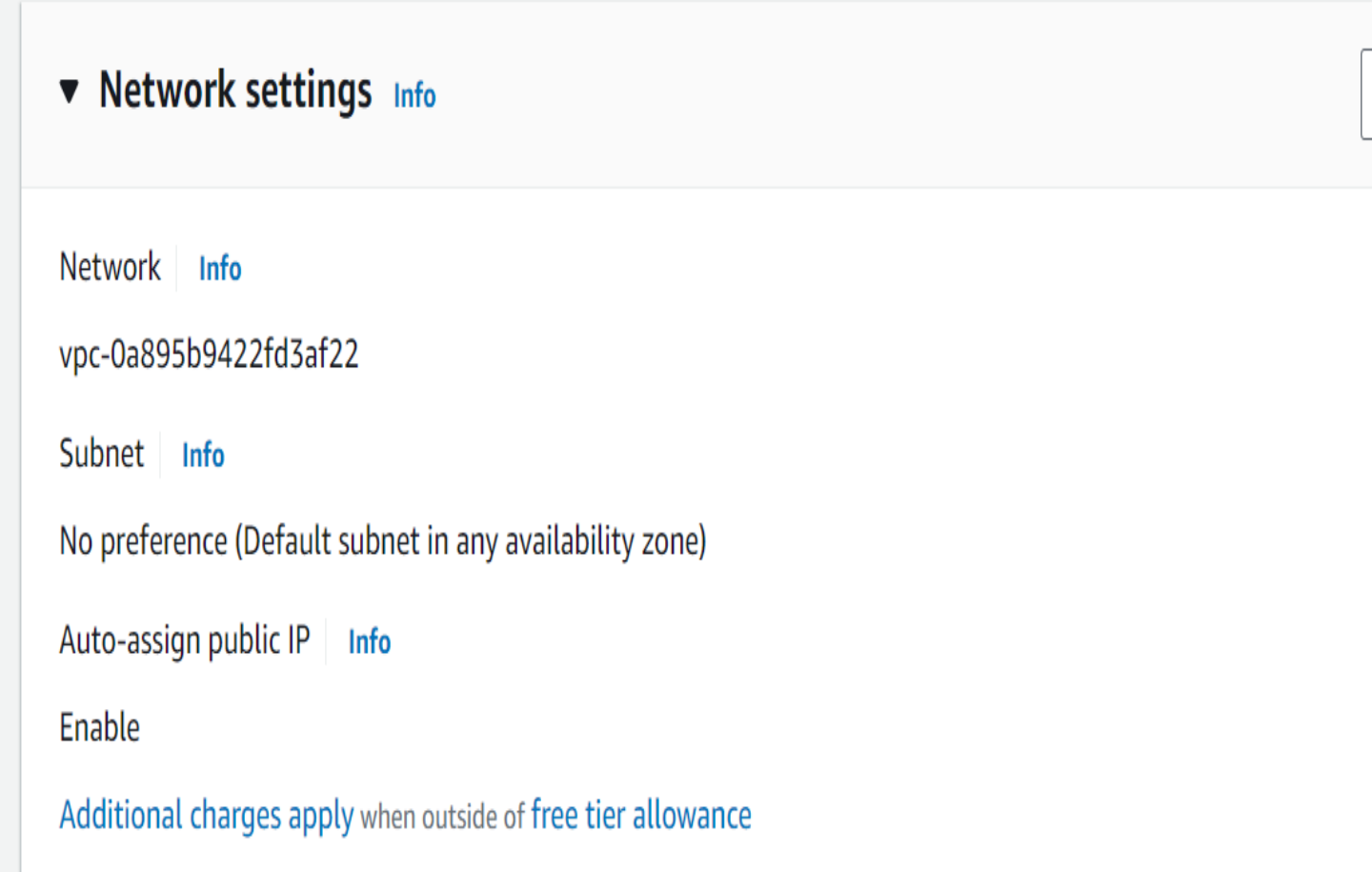
5. Configure Key Pair:

- If you don't have a key pair, create one. Otherwise, select an existing key pair.



6. Configure Network Settings:

- Ensure that your instance is in the default VPC and choose the default subnet.



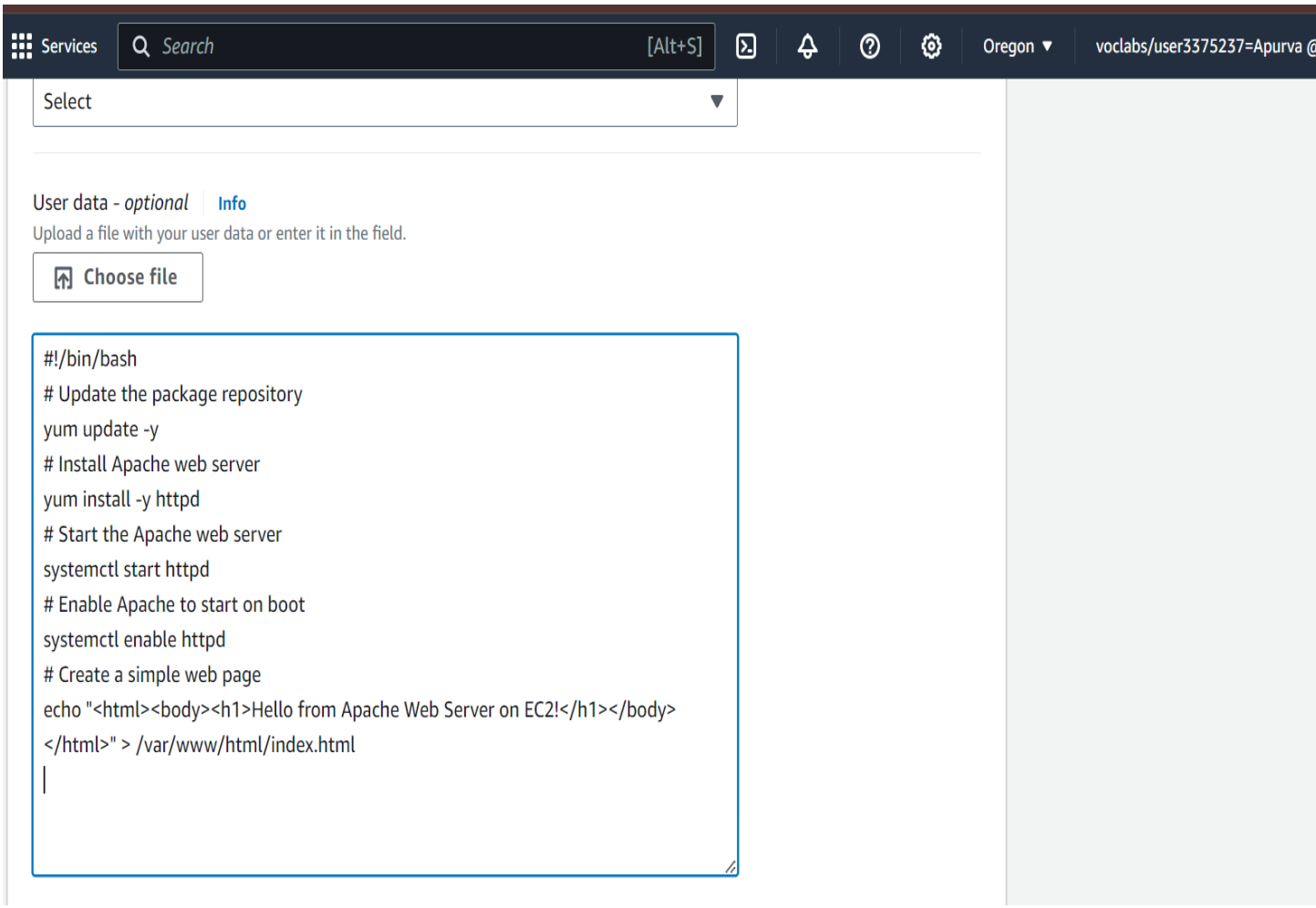
7. Add User Data (Shell Script):

- Scroll down to Advanced details.

- In the User data section, enter the following script:

```
#!/bin/bash
```

```
    # Update the package repository
    yum update -y
    # Install Apache web server
    yum install -y httpd
    # Start the Apache web server
    systemctl start httpd
    # Enable Apache to start on boot
    systemctl enable httpd
    # Create a simple web page
    echo "<html><body><h1>Hello from Apache Web Server on EC2!</h1></body></html>" > /var/www/html/index.html
```

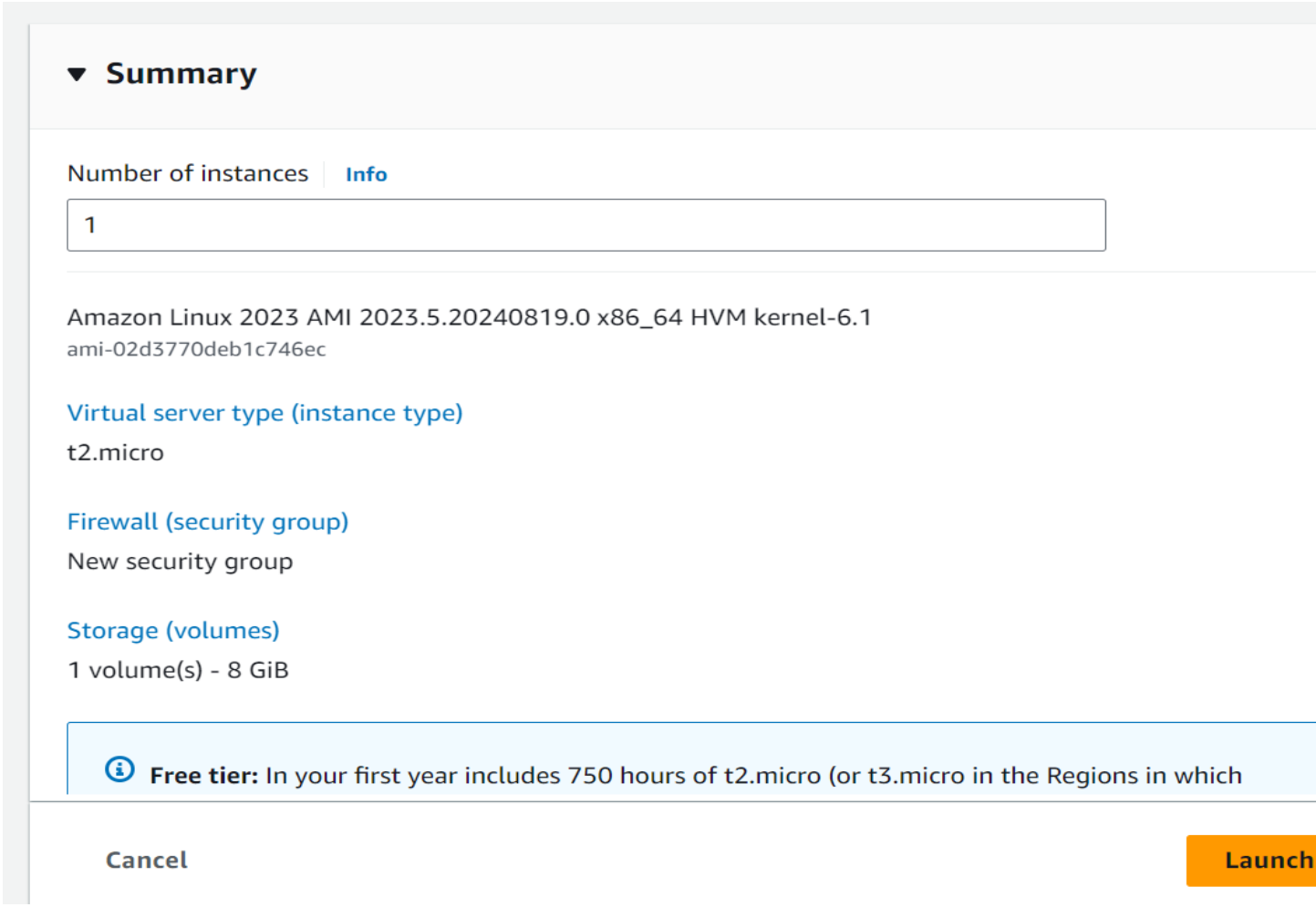


8. Configure Storage:

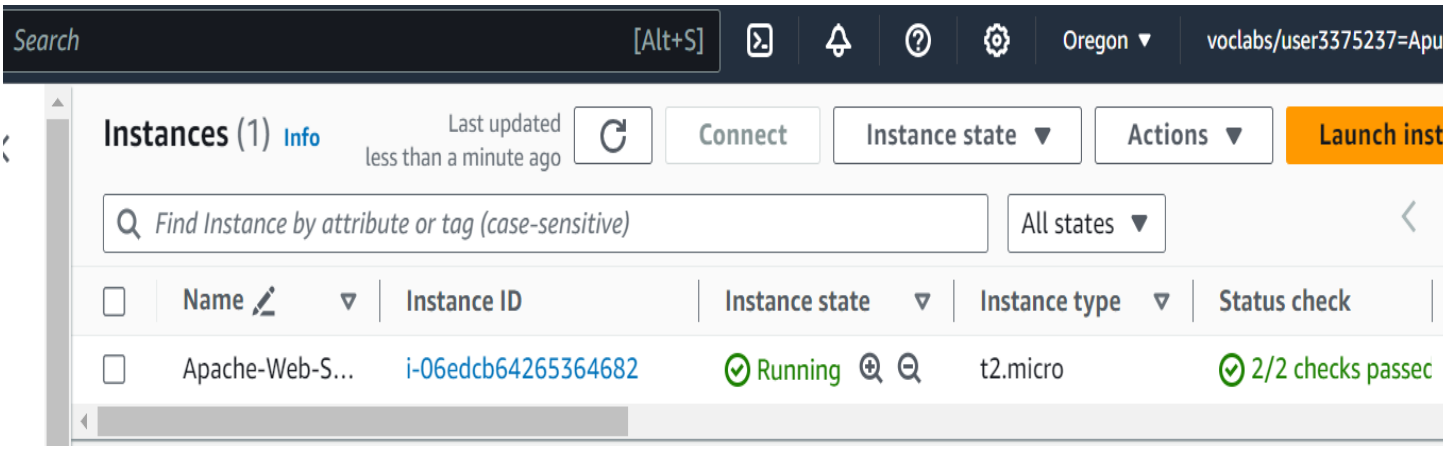
- Set the storage options as required. The default is 8 GiB of General Purpose SSD (gp2).

9. Launch the Instance:

- Review the configuration and click Launch Instance.



- Wait for the instance to enter the running state.



Step 2: Update Your Security Group

1. Go to Security Groups:

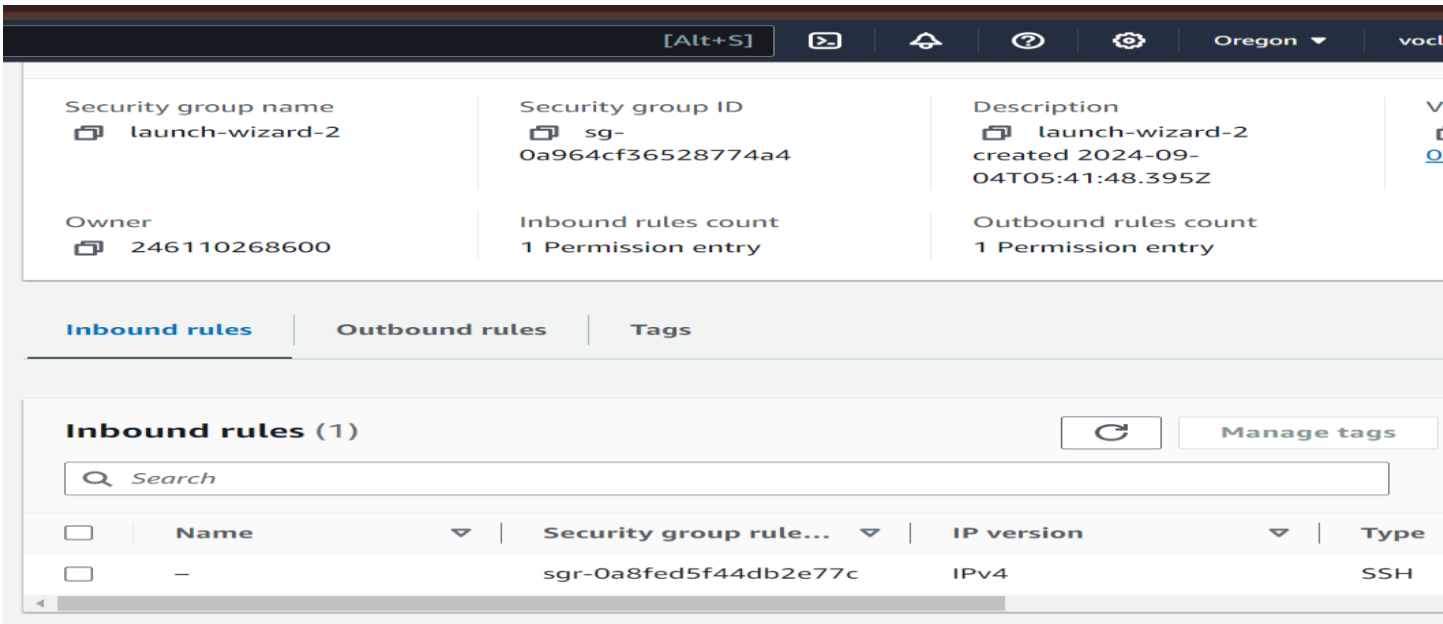
   - In the EC2 console, select Security Groups from the left-hand menu.

2. Select the Security Group:

   - Select the security group associated with your instance.

3. Edit Inbound Rules:

   - Click on Edit inbound rules.



4. Add HTTP Access:

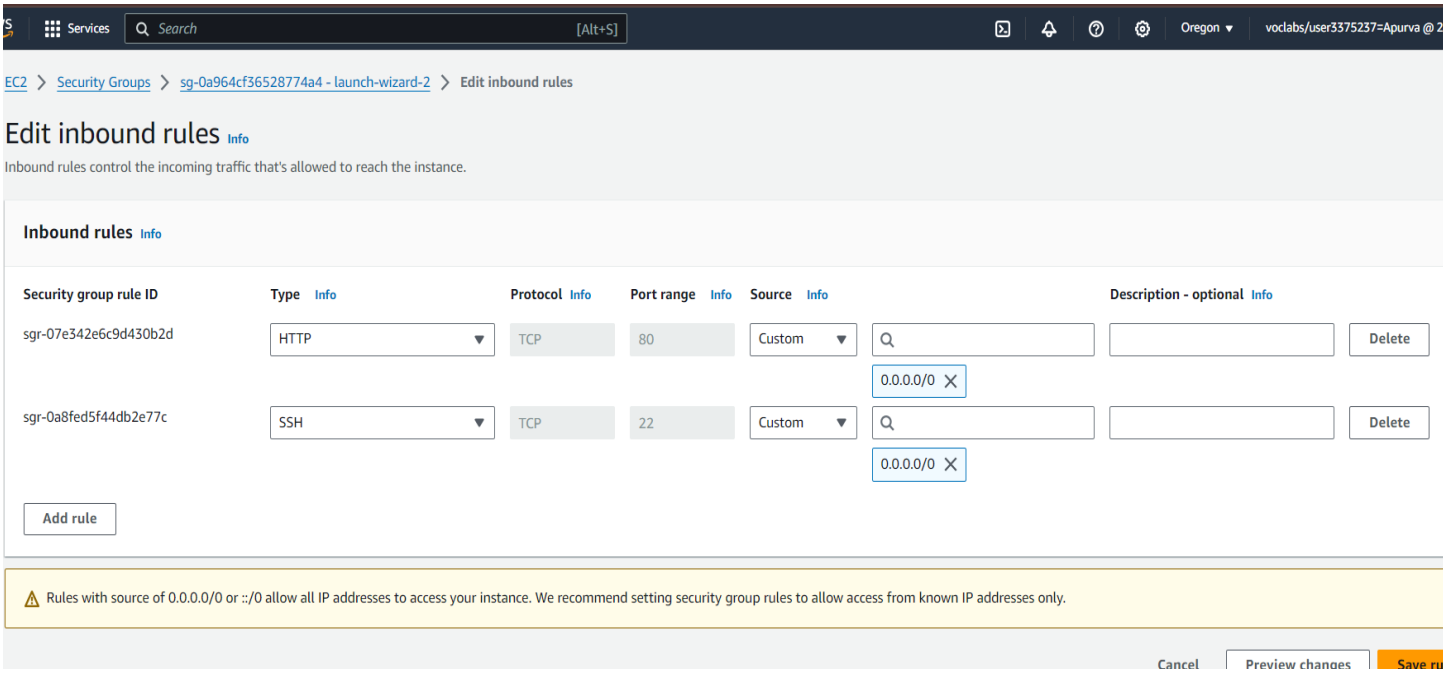
- Click Add Rule and configure:

- Type: HTTP

- Protocol: TCP

- Port Range: 80

- Source: Anywhere (0.0.0.0/0) to allow public access.



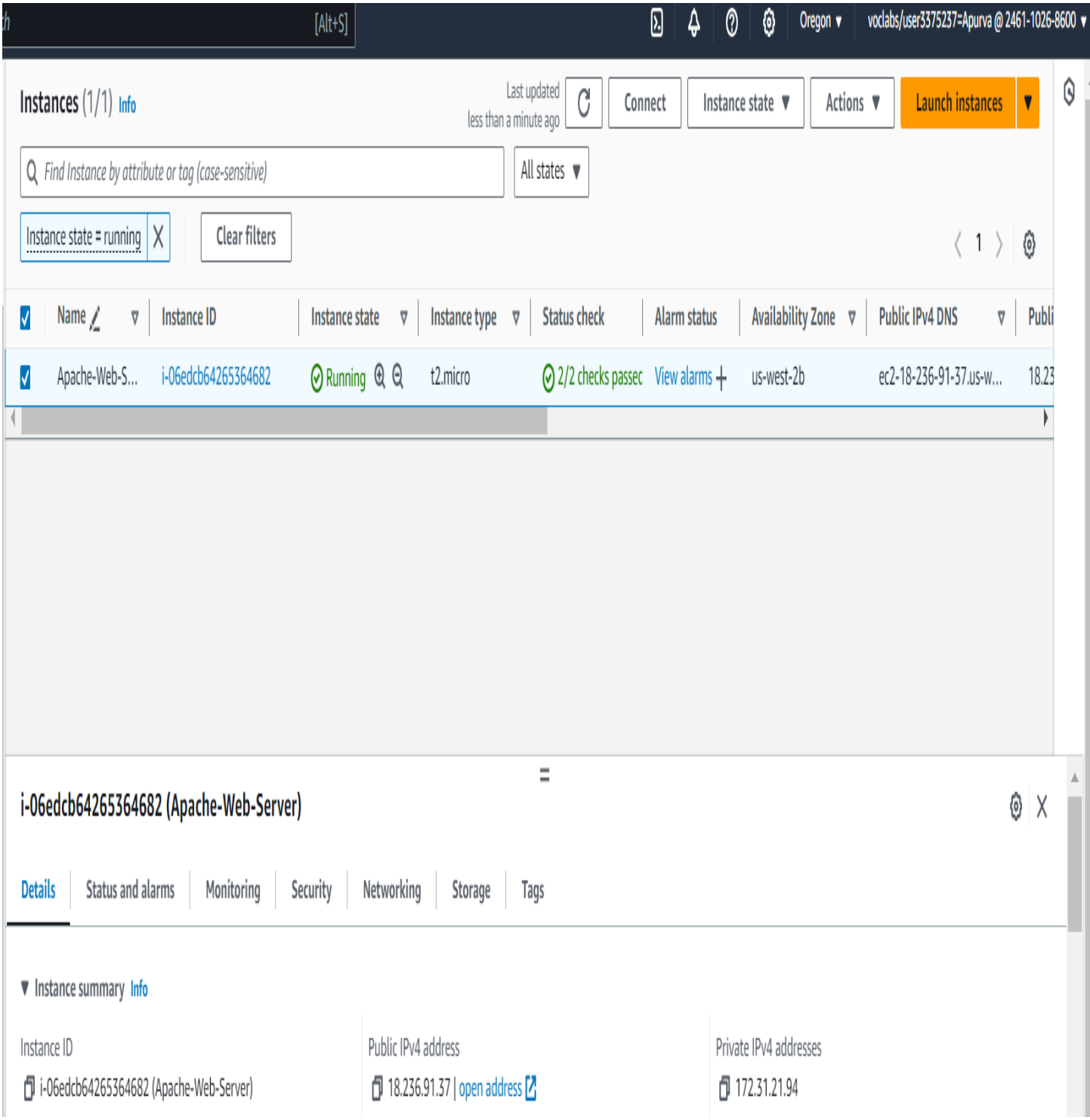
5. Save Rules:

- Click Save rules to apply the changes.

Step 3: Access the Web Server

1. Get the Public IP Address:

   - In the EC2 dashboard, select Instances.



- Find your running instance and copy the Public IPv4 address.

2. Access the Web Page:

- Open a web browser and enter the following URL:

http://<Public_IP_Address>

- Replace ‘18.236.91.37’ with the actual IP address of your EC2 instance.

- You should see the message: "Hello from Apache Web Server on EC2!"

Hello from Apache Web Server on EC2!