Challenge Lab: EC2 Instance Exercise

Duration

This lab takes approximately **55 minutes** to complete.

Launch Your Lab Environment

1. At the top of these instructions, click ☐ Start Lab ☐ to launch this lab.

   A Start Lab panel opens displaying the lab status.

2. Wait until you see the message "**Lab status: ready**", then click the **X** to close the Start Lab panel.

   This lab a creates a new AWS account for you where you will create the resources needed to launch an EC2 instance and run a simple web application.

Your Challenge

- Create an **Amazon Linux EC2 instance** to run a simple **web application**. The general requirements are as follows:

  - Use the **AWS console** to launch the instance.
  - Use an **Amazon Linux AMI** and a **T3 instance type** with a size that is smaller than *medium*.
  - Launch the instance in a **new VPC** and a **new subnet**, and **auto-assign** its public IP address.
  - While creating your instance, in the *user data*, install and start the **httpd service** as your web server. Provide write permission to users to the web server's document root directory (**/var/www/html**).
  - Use a **General Purpose SSD (gp2)** volume type for the root volume.
  - Configure the instance and create the necessary resources to allow you to **connect to it using SSH**.
  - Capture a screenshot of the EC2 instance's **System Log** showing that the *httpd service* was successfully installed.

- Test your web server by deploying the simple web page below to it.

  - Open a SSH session to your EC2 instance.
  - Open a text editor and copy and paste the following HTML code:

```
<!DOCTYPE html>
<html>
<body>

<h1>YOUR-NAME's re/Start Project Work</h1>

<p>EC2 Instance Challenge Lab</p>

</body>
</html>
```

  - Replace YOUR-NAME with your name and save the file as **projects.html**.
  - Place this file in the **/var/www/html** directory of your EC2 instance.
  - Open a web browser and navigate to this sample webpage. Capture a screenshot showing that the page was successfully returned and displayed.

- Submit the screenshots that you captured to your instructor.

Hints:

- You will need to create a key pair and download its private key file to allow you to remotely connect via SSH to your EC2 instance.
- You will need to create an internet gateway and properly configure the subnet's route table in your VPC **before you launch your instance**.
- Make sure that you have the right security group settings. In particular, you should allow for HTTP traffic.
- Use the public IP address of the instance to access your webpage.