9-9-25 lab notes

Goal: Construct an EC2 instance

Sign in to AWS Console using your credentials (account ID, IAM username, & password). Once you reach the AWS Console screen, click on the Search bar at the upper left hand side of the screen and type in “EC2”. Finally, select the appropriate option.

Step 1- Make a security group for your instance:

Once in the EC2 dashboard, select “Security groups” (SG) on the left. Next, look for "Create security group” and click on it. (ALWAYS look for orange buttons for action)

In “Create security group”:

1. **Basic details** = Enter a SG name (no spaces needed), with the option of adding a “-sg” at the end for identification purposes. Describe the SG in the Description field (your SG name works just fine!)

2. **VPC** = remains in “default”.

3. **Inbound rules** = Add a rule and select “HTTP” from the **Type** drop-down. The **protocol** changes to TCP with a **Port range** of 80. Change the **Source** to “Anywhere-IPv4” (0.0.0.0/0 should pop up under **Source**). In **Description** (optional), create a descriptor.

4. **Outbound rules** = DO NOT TOUCH!

5. **Tags** (optional) = Add key value pairs for novel/organizational means.

6. Hit that orange button (**Create security group**)

7. Finally, wait for the green banner message on the next page (indicating a successful SG generation).

Step 2- Generate EC2 instance:

From the EC2 dashboard, select **Instances**. Next, **Launch instances** (orange button again).

In **Launch an instance** section:

1. In the **Name and tags** section, name your instance.

2. **Application and OS Images section (Amazon Machine Image)**, SKIP THIS SECTION!! (Default works just fine)

3. **Instance type** = Remains as default

4. **Key pair** = From “Key pair name” dropdown, select the **default value** “Proceed without a key pair (Not recommended)”.

5. **Network settings** = From **Firewall** (**security groups**), choose “select existing security group”.

6. **Common security groups** = click the dropdown and select the security group you just created previously (NEVER choose launch-wizard-1).

7. **Configure storage** = Skip this section and leave defaults

8. **Advanced details** = Expand this section and scroll all the way to the bottom. **User data** (optional) field is where you would paste a script for your instance.

9. Hit that orange button (**Launch instance**)

10. **Instances** = Look for your new instance (“Running”, next to it) and select it for details. Next, look for the **Public DNS** and click the double squares icon to copy the website URL.
11. Finally, open a new browser tab, type “http://” and paste the DNS URL right behind it. The webpage/server should be generated successfully.

Cleanup- Teardown instructions:

1. From the EC2 dashboard, select **Instances**. Next, select the checkbox of the Instance to be torn down.

2. **Instance state** = select Terminate (delete) instance. Immediately, a new Terminate (delete) instance window should pop up. Verify that the targeted instance is in the Instance ID window.

3. Next, click the orange button [**Terminate (delete)**]. Once the green banner appears, you are in the clear. Finally, the Instance state should reflect the changes (“Terminated” ”after a few minutes).

4. **Network & Security** = Select **Security Groups**. Choose the SG to be torn down. (NEVER choose the default SG…Big problems).
5. **Actions** = “Delete security groups”. A new Delete security groups window should launch.The correct security group should populate the window. Once verified, click the orange button (**Delete**). Finally, refresh the AWS console a few times to confirm deletion.

6. Teardown COMPLETE!!.