A circuit board

Description automatically generated

AWS EC2 Lab

using the ec2 platform IN AWS

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***Purpose***

This lab dealt with the creation and management surrounding amazon EC2 services. Amazon EC2 instances are virtual servers that can be used to run applications in AWS. They’re highly configurable and customizable to boot and serve as a highly workable platform. By completing this lab, we’d learn how to create, secure, and access the EC2 instance created.

***Screenshots***

The first step in the process is to navigate to the EC2 setup wizard. Then after some beginner’s setup, select the first options given.

Graphical user interface, text, application, email

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Graphical user interface

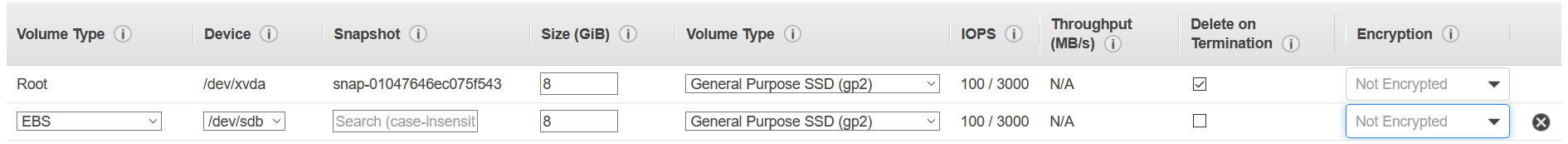
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After a couple steps, we add this user code to allow us to test out the machine later in the lab. Simple HTML page.

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We add storage…



…and then the server gets it’s name, to distinguish it in the lists later.

Graphical user interface, text, application

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We also create a security group, with it’s own name.

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Crucially, we must download the SSH key pair during the creation of the EC2. It is not available for download after creation is completed.

Timeline

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Then we edit the security group to include HTML inbound rules, to allow us to see our test code from earlier.

Graphical user interface, text, application

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After going to the public IP in the instance page, we can see that the test code runs as intended.

Graphical user interface, application

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Now we move onto how to SSH into the EC2 machine, after we’ve created it. Before anything, we need to edit the security group rules to allow for SSH traffic. (This took some troubleshooting to pinpoint)

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First, we have to convert our key from a “.pem” format to a “.ppk” format, for use in PuTTY. We import the saved key from earlier into PuTTYgen, which will convert the formats.

Graphical user interface, text, application, email

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After this is completed, we go back into PuTTY to SSH into the machine. To do this, we first paste the public IP address of the instance into PuTTY, and then go into the sidebar menu’s “Auth” section under “SSH” to add our converted key.

Graphical user interface, application

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After the setup is complete, we simply open the SSH connection, and voila.

Text

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***Problems***

This lab… was a bit more challenging than the rest. I followed the directions to the T, but the part about adding the SSH rules to the security groups was not specified. If you tried to SSH into the machine without those rules, you got this:

Graphical user interface, application

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Obviously, not good. Once I experimented a bit and did some research into how PuTTY connects to these machines, I realized I was not allowing the packets through in the first place. From there it was easy though. The instructions were precise and clear to follow in the end.

***Conclusion***

While being a bit tricky to set up in the beginning, EC2 machines aren’t insanely difficult. Learned how to use the security groups, PuTTY keys, PuTTY gen, and other small skills. Not a bad lab.