Launch Linux machine

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Create new EC2 Machine --

If any key pairs - delete

If any security groups - delete ( except default )

Observation:

Storage ( 30 gb for windows , 8 gb for linux )

Security Group ( RDP for windows, SSH for Linux )

AMI - Amazon Linux 2 ---> T2.micro --> No of instance 2 -- tag - MyLinux ---> Change security group Security group name - LinSG , Description - LinSG ( optional ) - Review launch -- Create new keypair -- download key pair -- View Instances

Observation - Two machines created.

Lets change the names to MyLinux-1, MyLinux-2

Credentials required for windows machines are (dns, username and password)

We use putty tool , to connect to linux machine.

And, putty requires ppk file ( Putty private key )

So, we need to convert .pem file to .ppk file.

We use puttygen to get the ppk file.

Download from google using the keywords "putty and puttygen"

Under alternate binary files

select putty.exe ( 64 bit )

select puttygen.exe ( 64 bit )

Open puttygen -- load -- Generate -- Save private key -- Save key without passphrase ( Yes ) -- Save

Credentials required for putty --

Hostname - username@dns ( We get this from ssh command )

select SSH -- Auth - selecy ppk file using browse option --> Open

username is - ec2-user ( We get this from ssh command )

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Now let’s connect to 2nd linux machine

We do not need to convert the pem to ppk, as both the machines have same pem file.

Right click on title bar of putty -- new session -- provide details -- change colors ( for easy identification )

Note: Both machines have different DNS names.

Terminate both the machines

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**What is Webserver?**

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A Web server is a program that uses HTTP (Hypertext Transfer Protocol) to serve the files that from Web pages to users, in response to their request.

Ex:

1) Apache HTTP Server

2) Internet Information Services (IIS)

3) nginx

4) httpd by Apache

What is httpd/HTTP?

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HTTP Daemon is a software program that runs in the background as a web server.

It waits for the incoming server requests. The daemon answers the request and serves the hypertext and multimedia documents over the Internet using HTTP.

**Creating Web Server**

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We need to install web package, it is called web server.

package is nothing but software.

Step 1: Launch Linux machine - Amazon Linux 2 ( Delete any keypair, and security groups except default ) Name - MyLinux, Security Group Name - LinuxSG , View Instances.

TO Connect to the machine

Open puttygen --- generate ppk file.

Open putty and connect to the machine.

**What is Yum repository**

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YUM Repositories are warehouses of Linux software.

Sometimes the software we want to install is not available in Linux OS default.

In such situations, we can use YUM Repositories.

We can install new software on Linux with

"yum install packagename" command from console.

Installing Web Package

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sudo su

yum update -y

yum install httpd -y

cd /var/www/html

echo "MyGoogle" > index.html

service httpd start

chkconfig httpd on ( This command will help to start httpd service automatically, whenever machine is restarted )

Now, Our Linux machine is webserver.

Now, Let’s test are we able to access the web pages?

Copy the public IP and paste in browser

We are unable to access?

Browser communicates using http port

We should also open http port

Let’s open http port

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IN AWS Dashboard, click on security groups

Select our security group ( LinuxSG ) ---> Inbound --> Edit --> Add rule

Select Type - HTTP -- Save.

Observation: We get two entries for HTTP port.

One for ipv4 and other for ipv6

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Now, Let’s test are we able to access the web pages?

Yes!!!

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Bootstrap scripts

When you launch an instance in Amazon EC2, you have the option of passing user data to the instance that can be used to perform common automated configuration tasks.

#!/bin/bash

sudo su

yum update -y

yum install httpd -y

cd /var/www/html

echo "MyGoogle-2" > index.html

service httpd start

chkconfig httpd on