Launching EC2 Machine and SSH using Putty

Lab Details

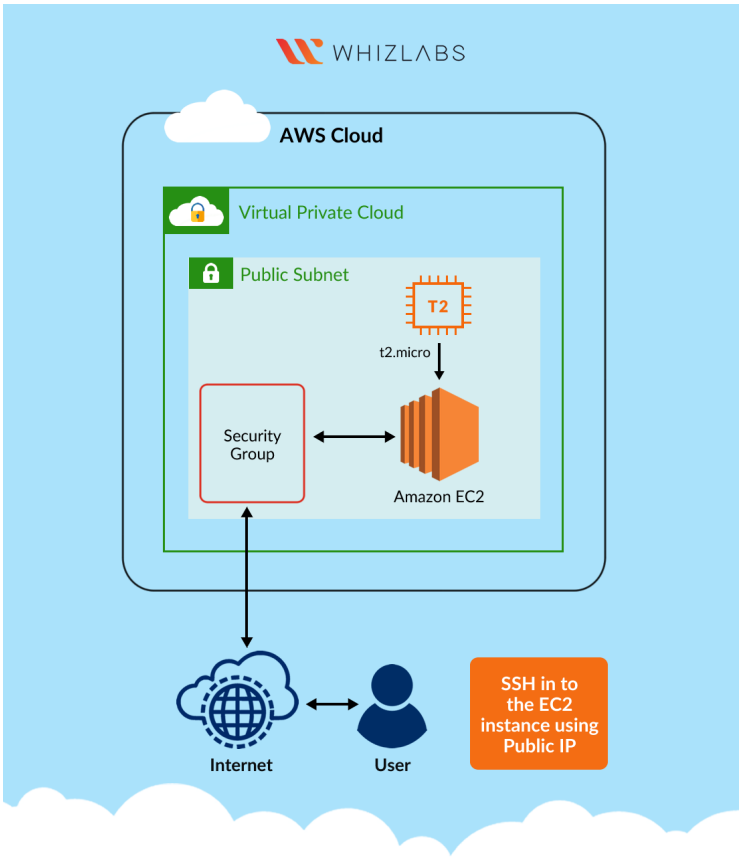
1. This lab walks you through the steps to launch and configure a virtual machine in the Amazon cloud.
2. You will practice using Amazon Machine Images (AMI) to launch an Amazon EC2 Instance.
3. You will use key pairs for SSH authentication to log into your instance.
4. Duration: **30 minutes**
5. AWS Region: **US East (N. Virginia) us-east-1**

Introduction

Lab Tasks

1. Log into AWS Management Console.
2. Launch an Amazon Linux Instance from an Amazon Linux AMI 2
3. Find your instance in the AWS Management Console.
4. SSH into your instance for Mac Users.
5. SSH into your instance for Windows Users.
6. Run a few other helpful commands.

Architecture Diagram



Launching Lab Environment

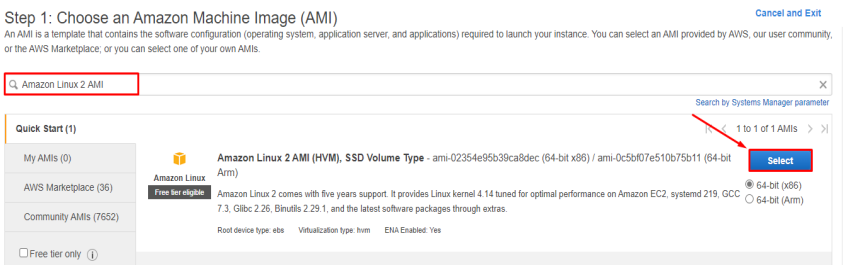
1. Make sure to sign out of the existing AWS Account before you start a new lab session (if you have already logged into one). Check **FAQs and Troubleshooting for Labs** (https://play.whizlabs.com/site/task_support/faqs-and-troubleshooting) , if you face any issues.
2. Launch lab environment by clicking on Start Lab. This will create an AWS environment with the resources required for this lab.
3. Once your lab environment is created successfully, Open Console will be active. Click on Open Console. This will open your **AWS Console Account** for this lab in a new tab.

Note : If you have completed one lab, make sure to sign out of the AWS account before starting a new lab. If you face any issues, please go through **FAQs and Troubleshooting for Labs** (https://play.whizlabs.com/site/task_support/faqs-and-troubleshooting).

Steps

Launching an EC2 Instance

1. Make sure you are in the **US East (N. Virginia) us-east-1 Region**.
2. Navigate to EC2 by clicking on the **Services** menu in the top, then click on EC2 in the Compute section.
3. Click on **Launch Instance**
4. **Search and Choose Amazon Linux 2 AMI:**

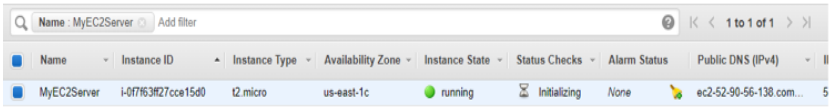


5. **Choose an Instance Type:** select t2.micro Free tier eligible and then click on **Next: Configure Instance Details**
6. **Configure Instance Details:** No need to change anything in this step, Click on **Next: Add Storage**
7. **Add Storage:** No need to change anything in this step, Click on **Next: Add Tags**
8. **Add Tags:** Click on **Add Tag**
   - Key : *Name*
   - Value : *MyEC2Server*
   - Click on **Next: Configure Security Group**
9. Configure Security Group:
   - To add **SSH:**
     - Choose Type: SSH
     - Source: Anywhere (From ALL IP addresses accessible).
   - After that, click on **Review and Launch**
10. **Review and Launch :** Review all settings and click on **Launch**.

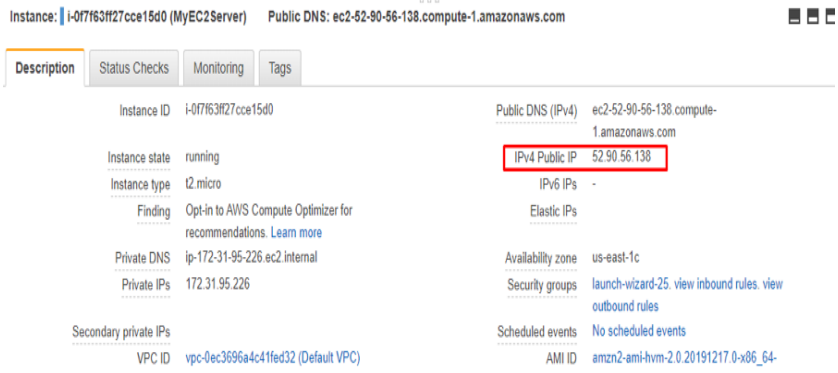
Start Lab

Open Console

11. **Key Pair :** Create a new key pair and click on Download Key Pair. After that, click on Launch Instances.
12. **Launch Status:** Your instance is now launching. Click on the instance ID and wait for complete initialization of the instance until the status change to running.



13. Note the IPv4 Public IP Address of the EC2 instance. A sample is shown in the screenshot below.



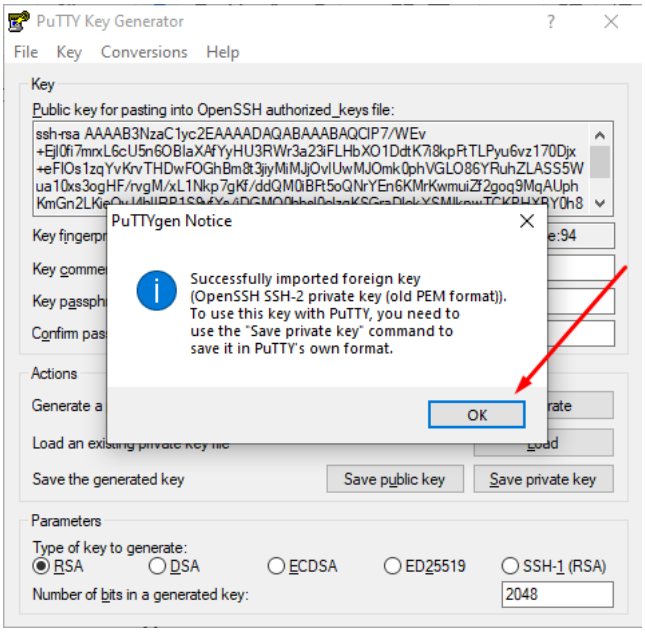
SSH into EC2 Instance

For MAC Users

1. Open the terminal.
2. Navigate to the location where your **.pem key** is downloaded and stored on your local machine.
3. To update **Permissions**, run the following command
   - **chmod 400 keypairname.pem** (Enter your key pair name)
4. To SSH and connect to the EC2 Instance, enter the following command:
   - Syntax: **ssh -i keypairname.pem ec2-user@publicIPAddress** (enter the public address you saved earlier)
   - Sample: **ssh -i keypairname.pem ec2-user@107.21.198.65**
   - Up next, type **yes** and then hit **enter.** You will be successfully logged on to the EC2 Instance.

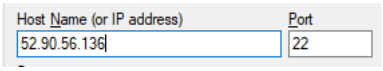
For Windows Users

1. Download putty and puttygen from this link : https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html (https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html)
2. To convert your key pair .pem to .ppk:
   - Open PuTTYgen.
   - Click on Load.
   - Click on **All files** to show your .pem file and select the **.pem file**.
   - You will get a success message if done correctly.

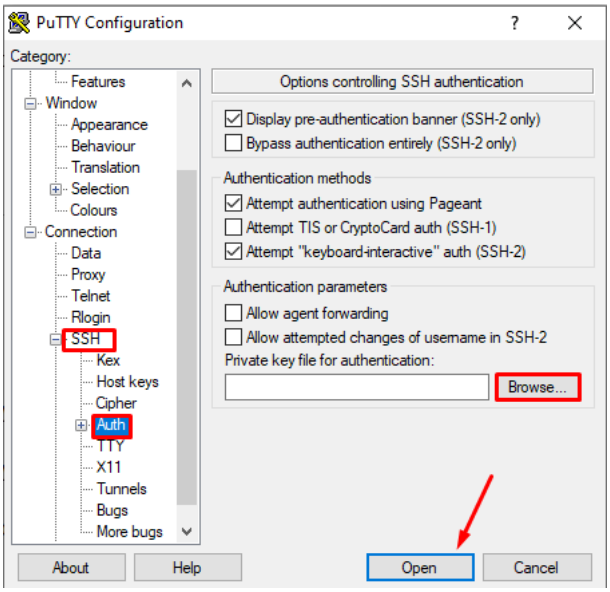


- Click on **Save Private Key**.
- Enter *keypairname* and **Save**.
- **keypairname.ppk** file will be saved to your local machine.

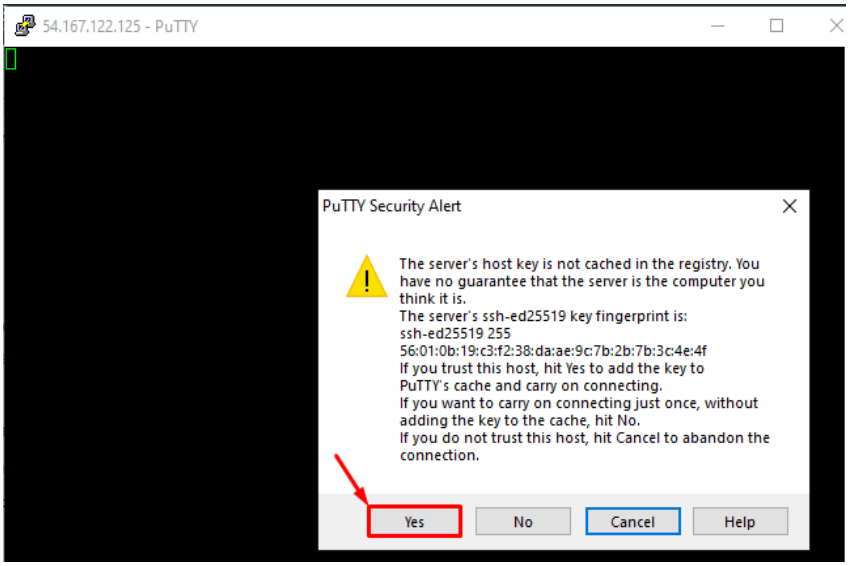
3. Navigate to the EC2 instance page and get the public IP of the machine.
4. Open PuTTY Desktop app
   - Host Name : Enter the public IP address



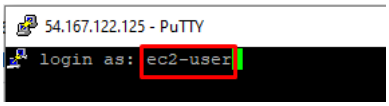
   - Click SSH , select Auth and click on Browse... to select the private key (.ppk) that you converted from the .pem file.
   - Click on Open .



   - Select Yes to connect to the machine.



5. If you are using Linux AMI other than Ubuntu for the lab:
    - Enter user name: **ec2-user** and hit Enter.



6. If you are using Ubuntu AMI for the lab:
    - Enter user name: **ubuntu** and hit Enter.
7. You will see the console after a successful login.

Running Commands

1. Switch to root user: **sudo -s**
2. Run updates using the following command:
    - **yum -y update**
3. To find your current working directory, enter the command **pwd**
4. Enter the **exit** command to log out of Putty.

Completion and Conclusion

1. You have successfully launched an EC2 Instance.
2. You have logged into an EC2 instance as a MAC User.
3. You have logged into an EC2 instance as Windows User.
4. You ran a few other helpful commands.

Validation Test

1. Once the lab steps are completed, please click on the Validate button on the right side panel.
2. This will validate the resources in the AWS account and shows you whether you have completed this lab successfully or not.
3. Sample output :

Lab Validation

Lab validation status	
status	success
Lab user info	
1	You have created 1 EC2 instance in this lab.
Lab task status	
Ec2 : 1	
EC2 instance creation status	success
Select Amazon Linux 2 AMI status	success
Creation of keypair for EC2 instance status	success
Assigning public IP for EC2 instance status	success
Enable SSH port in security group status	success
SSH status to your EC2 instance	success
Lab usertask complete details	
Ec2 : 1	

End Lab

1. Sign out of the AWS Account.
2. You have successfully completed the lab.
3. Once you have completed the steps, click on End Lab from your whizlabs dashboard.