Introduction to Amazon Elastic Compute Cloud (EC2)

Level: **Fundamental**

Amazon EC2 Amazon Web Services

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End Lab

Open Console

Validation

Lab Credentials

User Name

Whiz_User_45200.61044272

Password

33bc40c8-799d-4ab2-8ff8-98d16f42ec17

Access Key

AKIA2VQ5WFSQ6HEAU3HH

Secret Key

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

Support Documents

Need help?

How to use Hands on Lab

Troubleshooting Lab

FAQs

Cloud Architect

Compute

Lab Steps

Task 1: Launching Lab Environment

1. Launch the lab environment by clicking on Start Lab. Please wait until the lab environment is provisioned. It will take less than 2 minutes to provision the lab environment.
2. Once the Lab is started, you will be provided with ***IAM user name***, ***Password***, **AccessKey** and ***Secret Access Key***.
3. Click on the Open Console, AWS Management Console will open in a new tab.
4. In the AWS sign in page, the Account ID will be present by default.
    - Leave the Account ID as default. Do not remove or change the Account ID otherwise you cannot proceed with the lab.
5. Copy and paste the ***IAM user name*** and ***Password*** into AWS Console. Click on **Sign in** to log into the AWS Console.

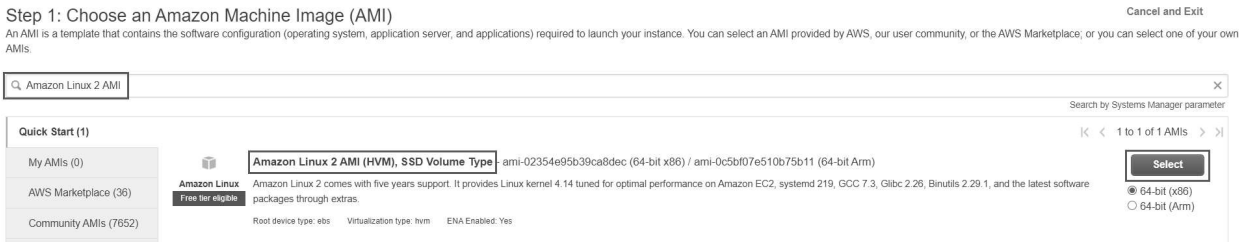
Note : If you face any issues, please go through **FAQs and Troubleshooting for Labs.**

Task 2 : Launching an EC2 Instance

1. Make sure you are in **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. Navigate to **Instances** on the left panel and click on **Launch instances.**
4. **Choose an Amazon Machine Image (AMI):** Search for **Amazon Linux 2 AMI** in the search box and click on the **select** button.



5. **Note: if there are two AMI's present for Amazon Linux 2 AMI, choose any of them.**
6. **Choose an Instance Type:** select t2.micro Free tier eligible and then click on the Next: Configure Instance Details
7. **Configure Instance Details:** No need to change anything in this step, click on Next: Add Storage

   Note: Ignore the warning in the IAM Role selection section

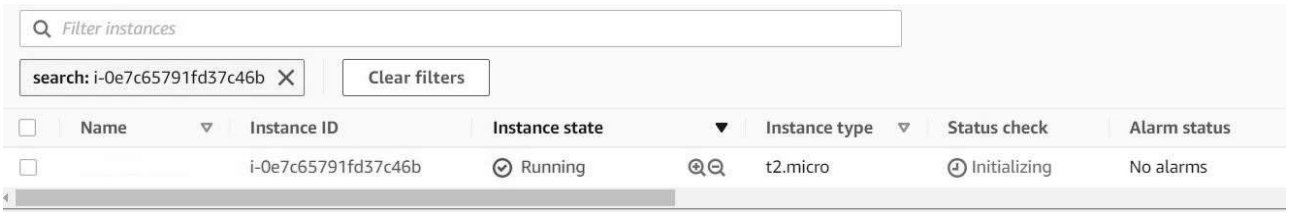
8. **Add Storage:** No need to change anything in this step, click on Next: Add Tags
9. **Add Tags:** Click on Add Tag
   - Key : Enter ***Name***
   - Value : Enter ***MyEC2Server***
   - Click on Next: Configure Security Group
10. **Configure Security Group:**
    - Assign a security group : Select **Create a new security group**
    - Security group name : Enter ***MyEC2Server_SG***
    - Description : Enter ***Security Group to allow traffic to EC2***
    - To add **SSH**,

- Choose Type: SSH
- Source: Select Anywhere **(From ALL IP addresses accessible).**

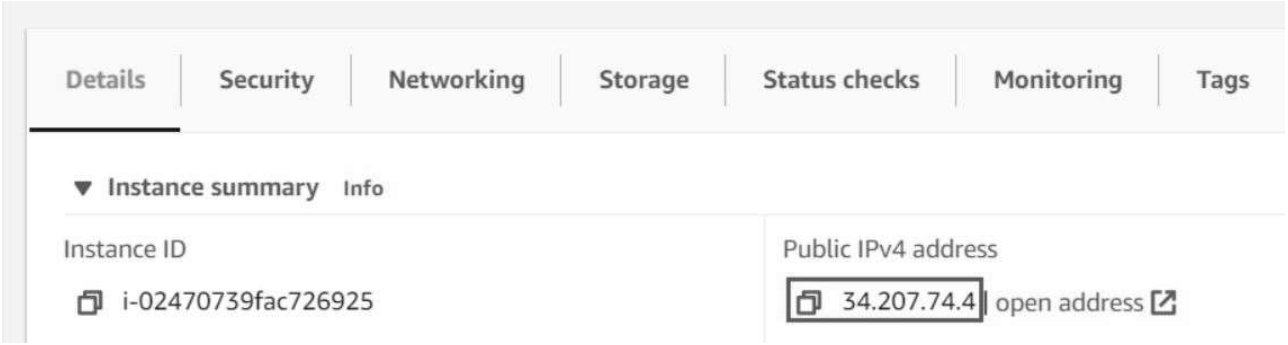
- For **HTTP,**
  - Click on **Add Rule**
  - Choose Type: **HTTP**
  - Source: Select Anywhere **(From ALL IP addresses accessible).**

- After that, click on **Review and Launch**

11. **Review and Launch :** Review all settings and click on **Launch**.
12. **Key Pair :** Select **Create a new key pair**
    - Key pair type : Select **RSA**
    - Key pair name : Enter ***MyEC2Key***
    - click on **Download Key Pair** , and store it on your local machine, Click on **Launch Instances**.
13. **Launch Status:** Your instance is now launching, Click on the instance ID and wait for complete initialization of instance till status change to **Running.**

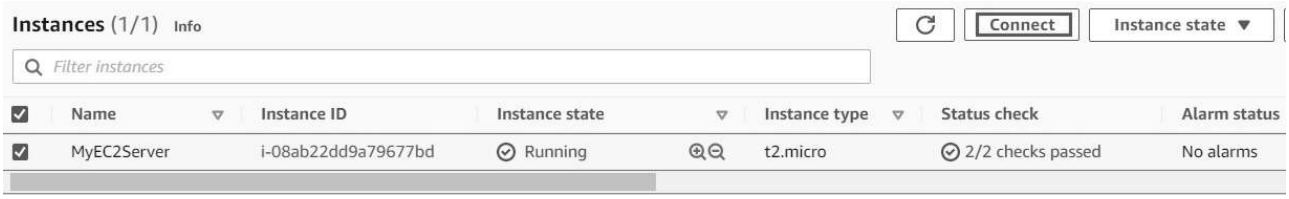


8. Note down the sample IPv4 Public IP Address of the EC2 instance. A sample is shown in the screenshot below.

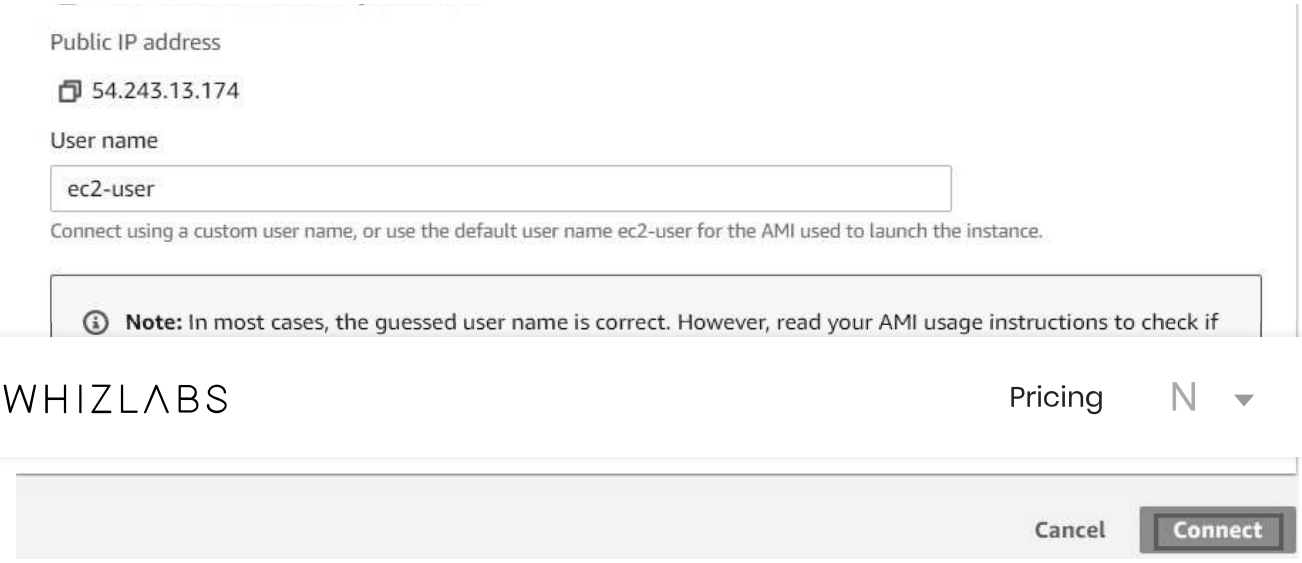


Task 3 : SSH into EC2 Instance

1. Select your EC2 instance(**MyEC2Server**) and click on the **Connect** button.



2. Select **EC2 Instance Connect** option and click on **Connect** button.(Keep everything else as default)



3. A new tab will open in the browser where you can execute the CLI Commands.

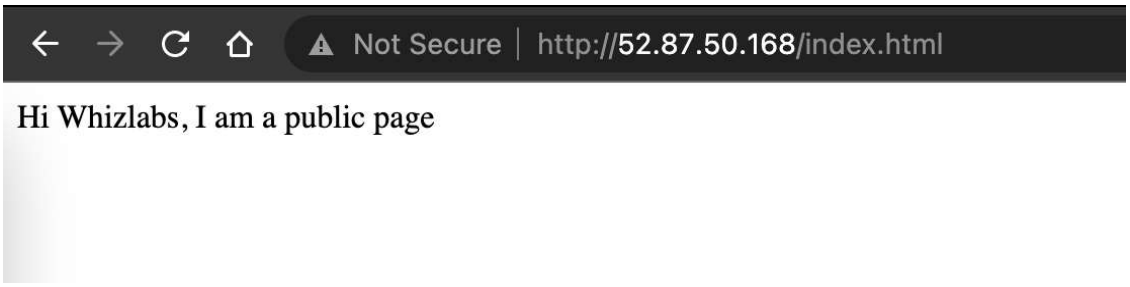
Task 4: Install an Apache Server

1. Switch to root user: **sudo su**
2. Now run the updates using the following command:
    - **yum -y update**
3. Once completed, lets install and run an apache server
    - Install the Apache web server:
        - **yum install httpd -y**
    - Start the web server
        - **systemctl start httpd**
    - Now enable httpd:
        - **systemctl enable httpd**

- Check the webserver status
    - **systemctl status httpd**
- You can see Active status is running.
- You can test that your web server is properly installed and started by entering the **public IPv4 address** of your **EC2 instance** in the address bar of a web browser. If your web server is running, then you see the Apache test page. If you don't see the Apache test page, then verify whether you followed the above steps properly and check your inbound rules for the security group that you created.

Task 5 : Create and publish the page

1. To add the contents into index.html file using echo, copy and paste the below command to shell.
    - **echo "<html>Hi Whizlabs, I am a public page</html>" > /var/www/html/index.html**
2. Restart the webserver by using the following command:
    - **systemctl restart httpd**
3. Now enter the file name, ***/index.html*** after the **public IPv4 Address** which you got when you created the ec2 instance in the browser, and you can see your HTML content.
    - Make sure **URL Protocol** is **http** not https.
    - Syntax: **http://<Your_Public_IPv4_Address>/index.html**
    - Sample URL: **http://52.87.50.168/*index.html***
    - **Note:** If the index.html page is not loading, try removing **s** from the link, it should be HTTP.



6. If you can see the above text in the browser, then you have successfully completed the lab

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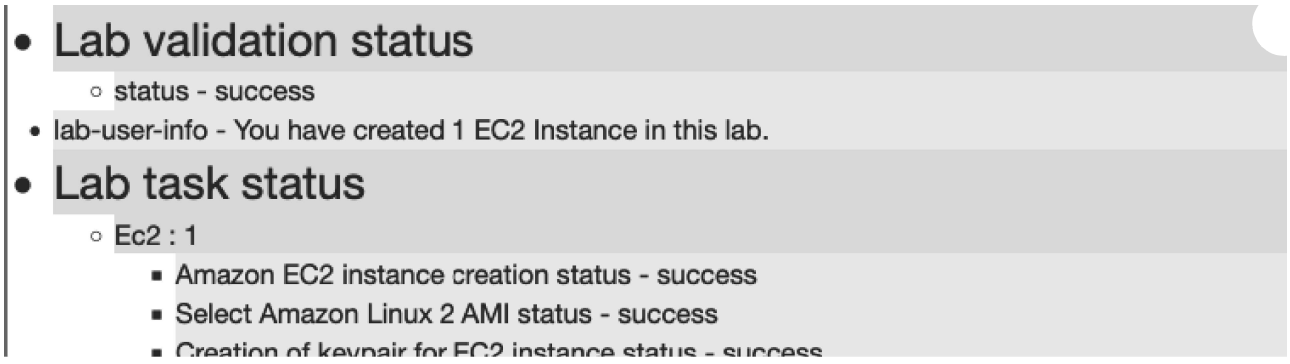
Task 6 : Validation Test

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



- 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
- Install Apache webserver status - success
- Add HTML page in server status - success

- **Lab usertask complete details**
  - Ec2 : 1
    - 1 - You have Launched an EC2 instance with id i-0b147b535df38161a.
    - 2 - You have selected Amazon Linux 2 Kernel 5.10 AMI 2.0.20211201.0 x86_64 HVM gp2 AMI and t2.micro as Instance type.
    - 3 - You have created a security group with ID sg-0b532ba36c2dee442.
    - 4 - The Ports are:
      {1: 'Port 80 with Cidrlp block 0.0.0.0/0', 2: 'Port 22 with Cidrlp block 0.0.0.0/0'}
    - 5 - You have enabled SSH port for this instance.
    - 6 - Your IPv4 Public IP is 52.207.220.72.
    - 7 - The Keypair of the EC2 instance is whiz_ec2.
    - 8 - You have successfully installed Apache/2.4.51.
    - 9 - You have successfully added the HTML page index.html

Completion and Conclusion

1. You have successfully created and launched Amazon EC2 Instance.
2. You have successfully logged into the EC2 instance by SSH.
3. You have successfully created a webpage and published it.

End Lab

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