Deploying a Static Website on EC2 with Apache2 (Ubuntu)

Hello Folks ! 👋 Wanted to share my recent learning experience 🚀 in deploying a static website on Amazon EC2 with Apache server.

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It's been an incredible learning curve and I wanted to share my the steps I followed, challenges I faced and steps I took to overcome them.

1️⃣ Launch an EC2 Instance

→ Log in to your AWS Management Console.

→ Navigate to the EC2 service.

→ Click on "Launch Instance" and select "Ubuntu Server" as the operating system.

→ Choose an instance type (t2.micro is recommended for this assignment).

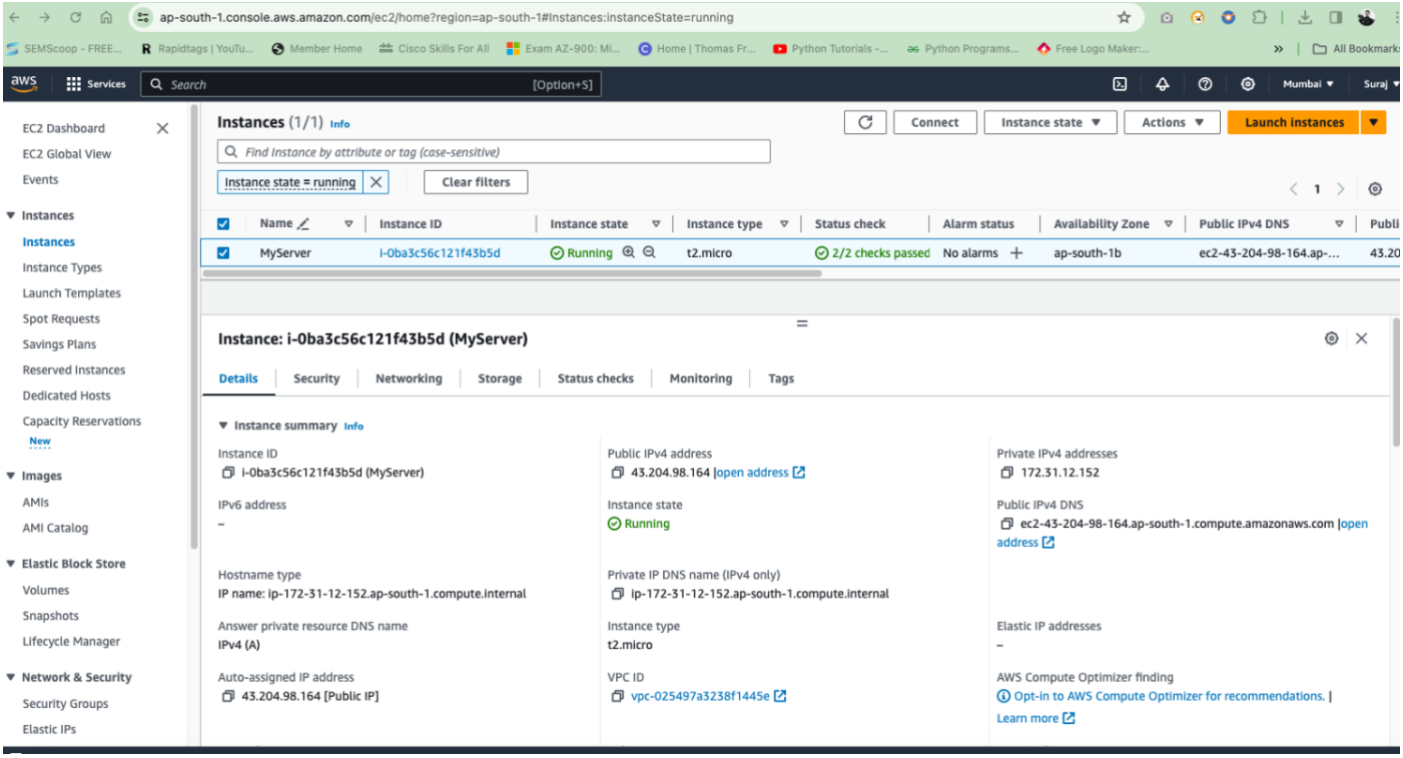
→ Select an existing key pair or create a new one to connect to your instance via SSH. Save the key pair file (.pem) securely

→ Configure instance details, such as the number of instances and network settings.

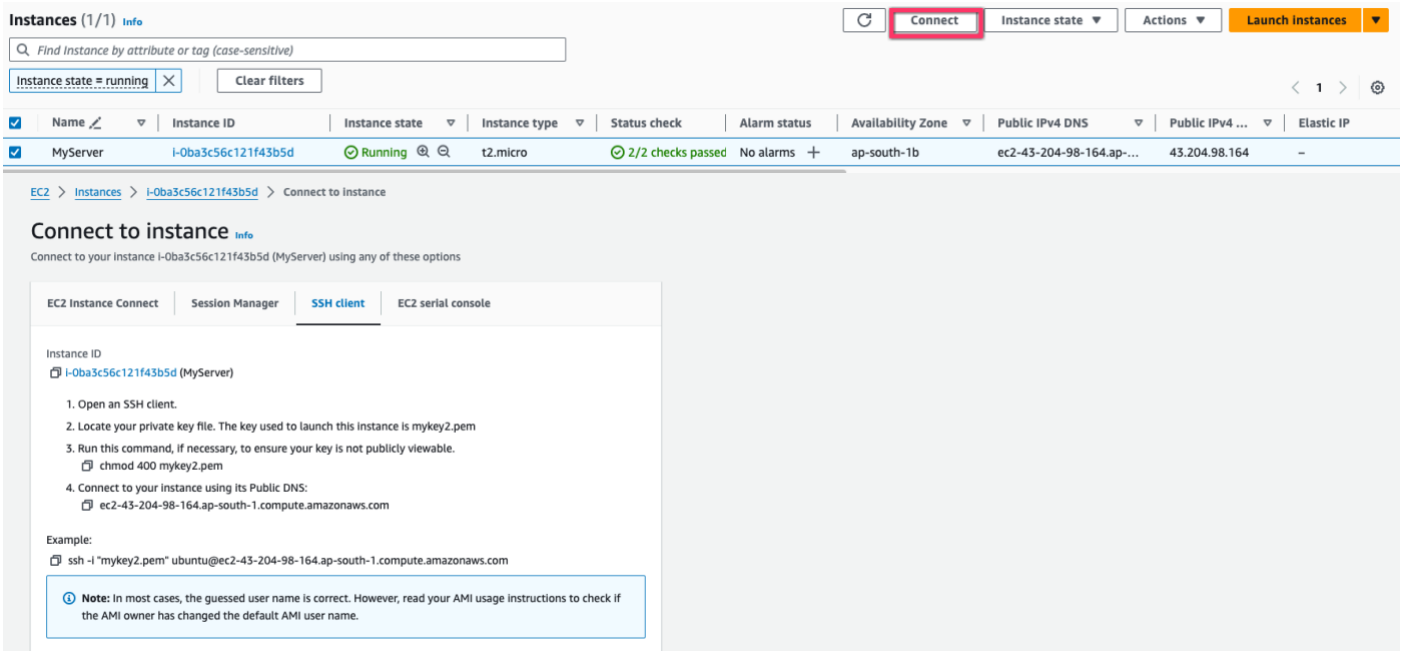
→ Add storage if needed (default settings should be sufficient for this assignment).

→ Add tags if necessary (optional but can help in identifying your instance later). → Configure security groups to allow HTTP (port 80) and SSH (port 22) inbound traffic.

→ Review the settings and click "Launch.



2 Connect to the EC2 Instance



→ Open a terminal on your local machine (Using Git bash)

→ Navigate to the directory where you saved the key pair file (.pem).

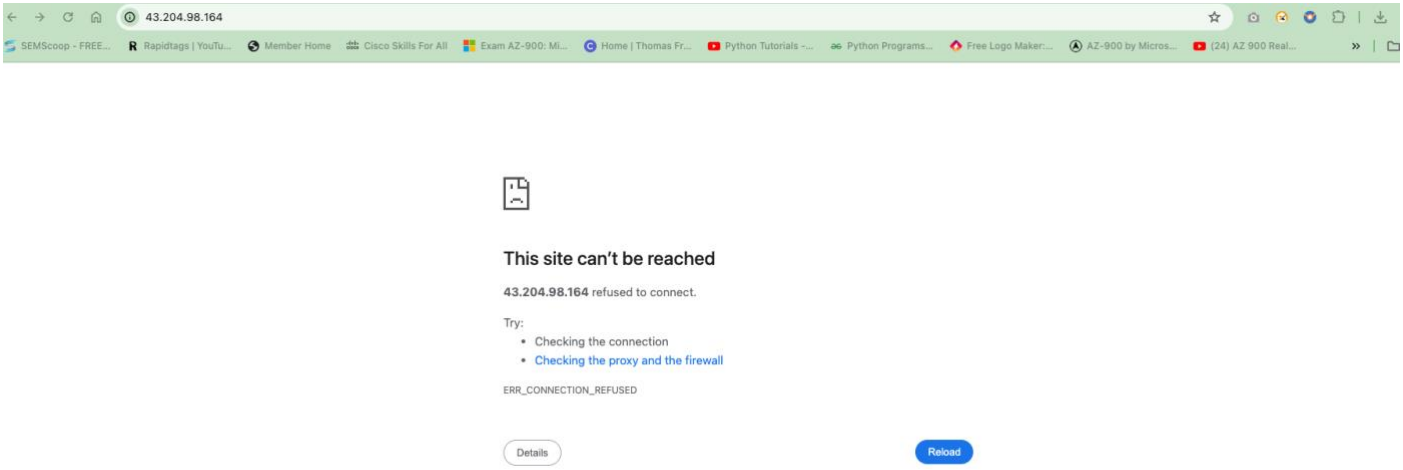
→ Change the permissions of the key pair file to prevent unauthorized access Command: chmod 400 YourKeyPair.pem

→ Connect to the EC2 instance using SSH:

Command: ssh -i YourKeyPair.pem ubuntu@your-ec2-instance-public-ip Example: ssh -i "mykey2.pem" ubuntu@ec2-43-204-98-164.ap-south-1.compute.amazonaws.com

```
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1012-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Mon Nov 27 19:28:53 UTC 2023

  System load:  0.0               Processes:             96
  Usage of /:   20.5% of 7.57GB   Users logged in:       0
  Memory usage: 21%               IPv4 address for eth0: 172.31.12.152
  Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


The list of available updates is more than a week old.
To check for new updates run: sudo apt update


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-12-152:~$ ls
ubuntu@ip-172-31-12-152:~$ pwd
/home/ubuntu
```

→ Access website through Public IPv4 address – Getting error msg 'This site can't be reached'



3 Install Apache2 WebServer

→ Install Java

Command: *sudo apt install openjdk-11-jre-headless*

→ Update the package repository and install Apache2 on your EC2 instance: Command: *sudo apt update*

(apt: Advanced Package Tool)

sudo apt install apache2

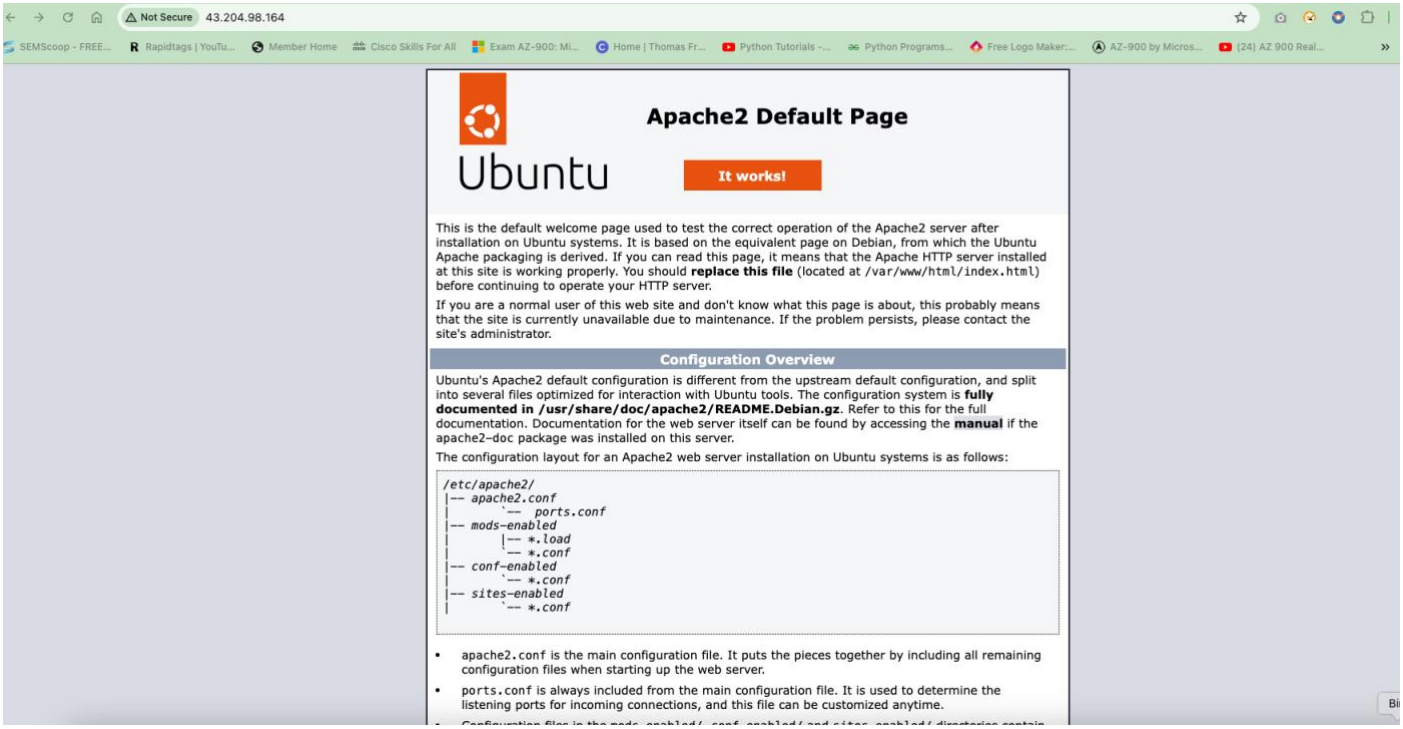
Start the Apache2 service:

Command: *sudo service apache2 start*

4. Enable Apache2 to start on system boot

Command: *sudo systemctl enable apache*

5. Access website by Public IPv4 address – getting Appache2 default page



4️⃣ Upload static website files

→ Create a directory to store your website files inside the Apache web root: Command: *sudo mkdir /var/www/html/my-website*

→ Transfer the provided index.html file to the EC2 instance. You can use SCP or SFTP.

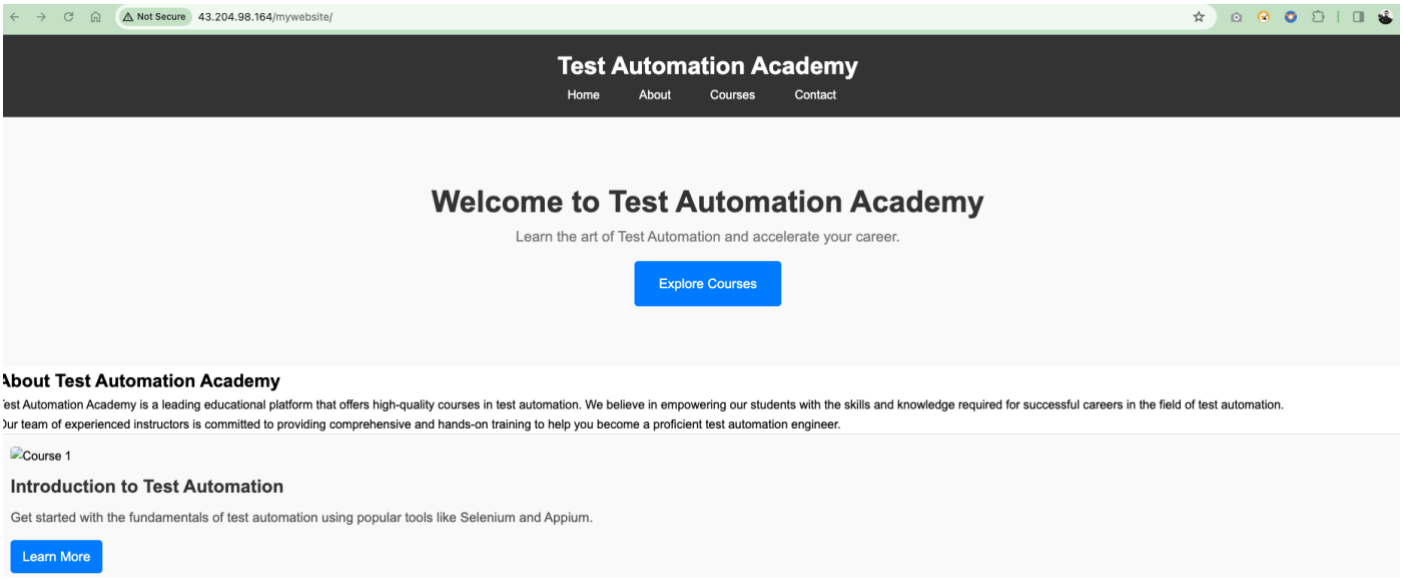
Using SCP: Command : *scp -i YourKeyPair.pem index.html ubuntu@your-ec2-instance-publicip:/var/www/html/mywebsite/*

****Challenge faced while transferring file:*

Was getting Permission Denied error. Executed below command to resolve the issue.

sudo chown -R root:ubuntu /var/www/html

→ Access website by Public IPv4 address. BOOM 💣 EXPECTED STATIC WEBSITE LOADED.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ur team of experienced instructors is committed to providing comprehensive and hands-on training to help you become a proficient test automation engineer.
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