

Cloud Deployment

- Today's goal is to deploy a real web server on cloud and learn practical server management.
- Launch the cloud instance (AWS Utho)
- Connect via SSH
- Install nginx
- Configure security groups for web access (port 80 by default for nginx)
- Extract and save log to a file
- Verify your webpage is accessible from the internet

Part 1: Launch Cloud Instance & SSH

- ◆ Create a Cloud Instance:

Create a cloud instance using aws free tier.

- ◆ Connect via SSH:

Using putty for windows. Private keys are used to connect via SSH. The first step is to copy the public ip address. Then open the putty paste ip address in the hostname. Click on ssh navigate to auth then to credential and browse the path where ppk file is stored, select it and click on session to give a name to session and save it. After the select the session and click on load lastly on open. It will pop up the dialogue box and accept it. Then the terminal will open asking for username. Enter the username, it will start the cloud server.

Part 2: Install Docker && Nginx

Step 1: update system

Command: sudo apt update && sudo apt upgrade -y is to update and upgrade the system before installing docker and nginx.

Command: sudo apt install docker.io

Step 2: Install nginx

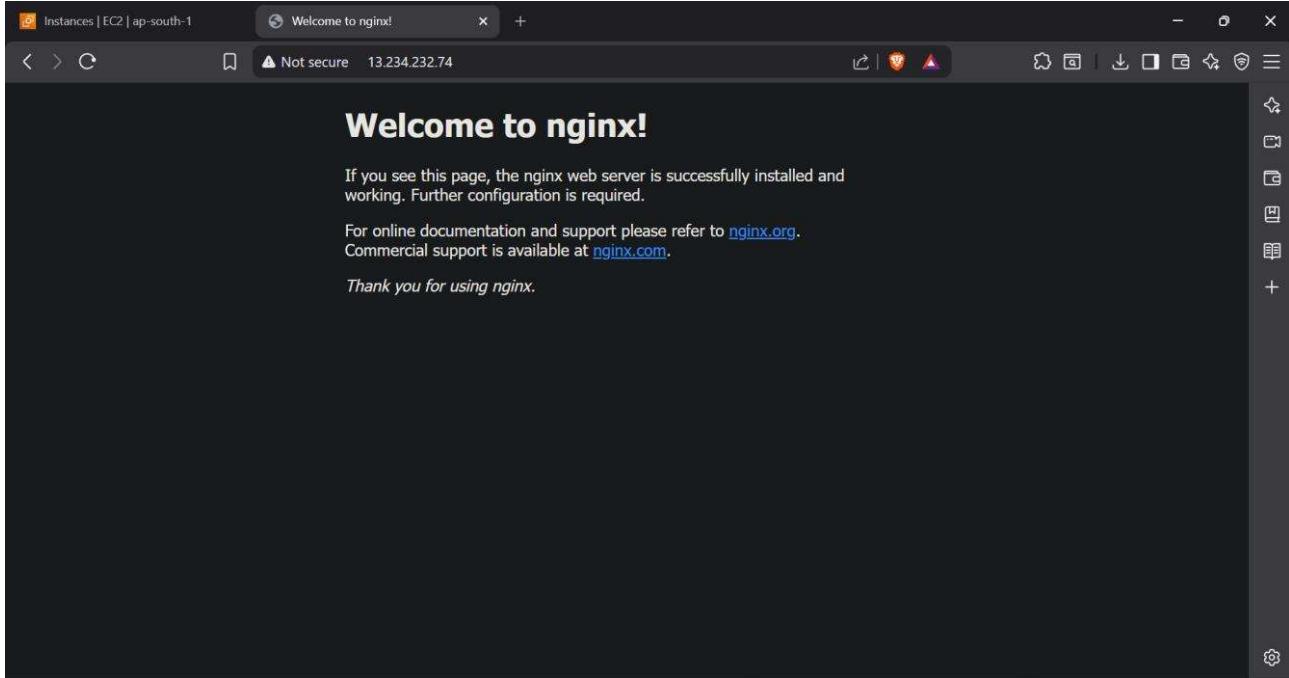
Command: sudo apt install nginx. This command will install the nginx service.

Verify nginx is running command to be used is systemctl status nginx, which will display whether the server is running or not.

Part 3: Security Group Configuration

The security group configuration is to go to the instance page and then click on security the tab then click on the security groups link, it will take to the other page, then click on edit inbound rules. Add a new rule with port range 80 in description, write nginx and save rules. Go back to the instance

page then click on connect and click on ec2 instance to copy the public ipv4 address. Open browser past the address in the search and hit enter it will pop welcome to nginx page.



Part 4: Extract nginx logs

Step 1: view Nginx logs

Command: tail -f /var/log/nginx/access.log

Step 2: save log to the file

Command: tail -f /var/log/nginx/access.log | tee nginx-log.txt

Step 3: Download log file to your local machine

Command: scp -i "fd_practice_linux.pem" ubuntu@ec2-13-234-232-74.ap-south-1.compute.amazonaws.com:/home/ubuntu/nginx-logs.txt.

```
rohan@MSI MINGW64 ~/downloads
$ scp -i "fd_practice_linux.pem" ubuntu@ec2-15-207-51-101.ap-south-1.compute.amazonaws.com:/home/ubuntu/nginx-log.txt .
nginx-log.txt          100% 1544     19.9KB/s   00:00
```