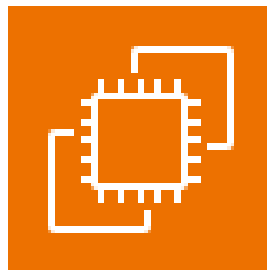




AWS Solution Architect Training with AWS Cloud Practitioner Global Certification Training

Trainer: Aravindraj.G- N minds Academy

Configure SFTP to Linux Web Server in AWS



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Objective

EC2 (Elastic Compute Cloud) is a core service provided by Amazon Web Services (AWS) that enables users to rent virtual servers in the cloud to run applications, store data, or handle computational workloads.

Use Cases for EC2 Linux Instances:

- **Web and Application Hosting:** Run Apache web servers or other Linux-based web applications in the cloud.
- **Database Servers:** Host SQL Server databases with EC2 Linux instances, using SSH or EC2 for more control.
- **Remote Desktop Applications:** Set up SSH (Remote Desktop Services) for remote access to Linux desktops in the cloud.
- **Development and Testing:** Create development environments with linux OS to test php,MySQL or other Linux-based applications.

SFTP- Secure File Transfer Protocol

SFTP (Secure File Transfer Protocol) is a secure network protocol that allows users to transfer files over a secure, encrypted connection. It is a more secure alternative to FTP (File Transfer Protocol) and is commonly used to upload, download, and manage files on remote servers.

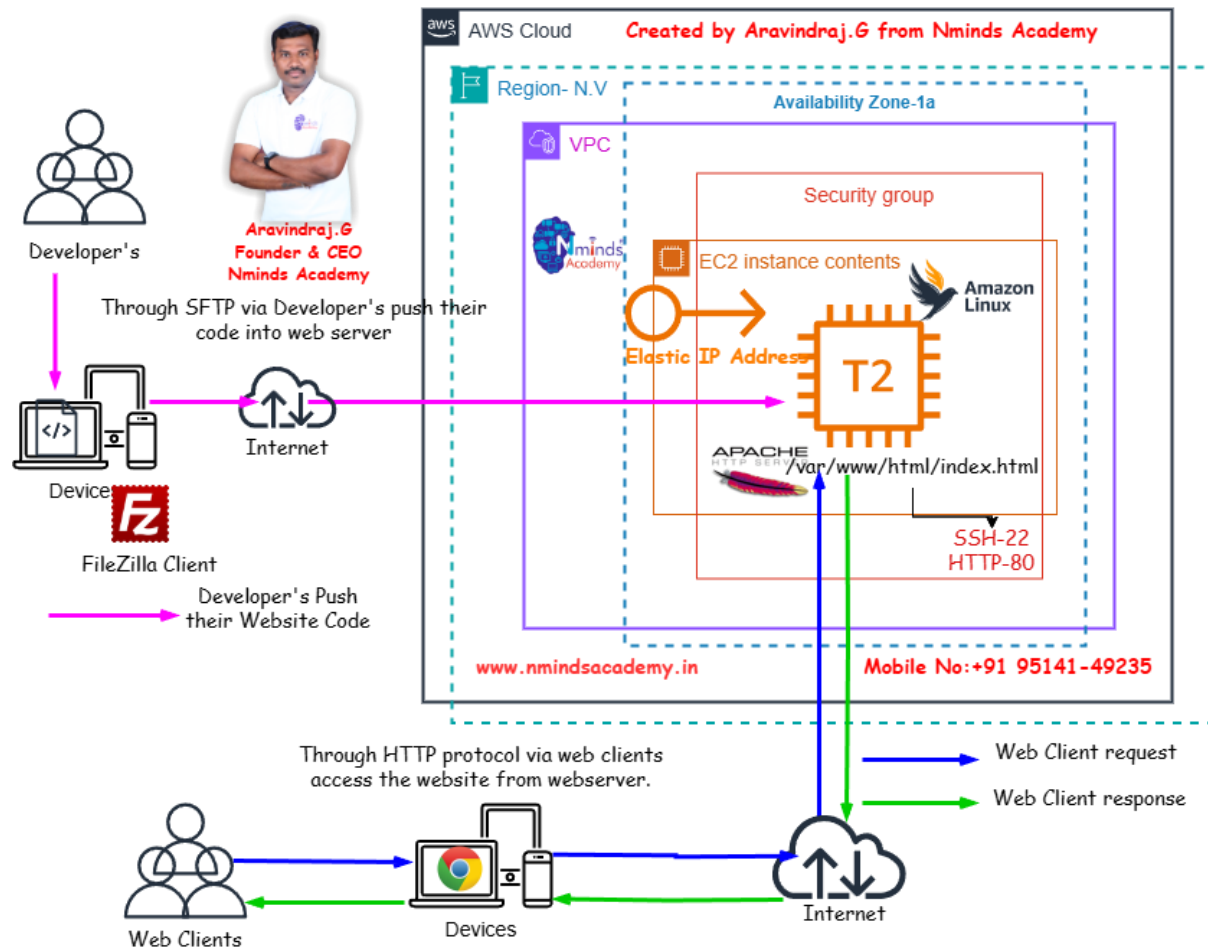
Here are the key uses and advantages of SFTP:

1. **File Transfer:** SFTP allows secure transfer of files between a local and a remote computer over a network. It ensures that the data is encrypted during transmission, protecting it from eavesdropping or tampering.
2. **File Management:** Besides transferring files, SFTP also allows users to perform file management tasks such as renaming, deleting, and moving files on the remote server.
3. **Secure Authentication:** SFTP uses SSH (Secure Shell) for authentication, which provides a stronger level of security compared to FTP's traditional username/password system. It often supports public key authentication, adding an extra layer of security.
4. **Encryption:** The main advantage of SFTP over FTP is encryption. All data sent over SFTP is encrypted, ensuring that sensitive information (like passwords and files) is protected during transmission.
5. **Firewall-Friendly:** SFTP operates over a single port (usually port 22), making it easier to use behind firewalls and NAT (Network Address Translation) devices compared to FTP, which uses multiple ports.



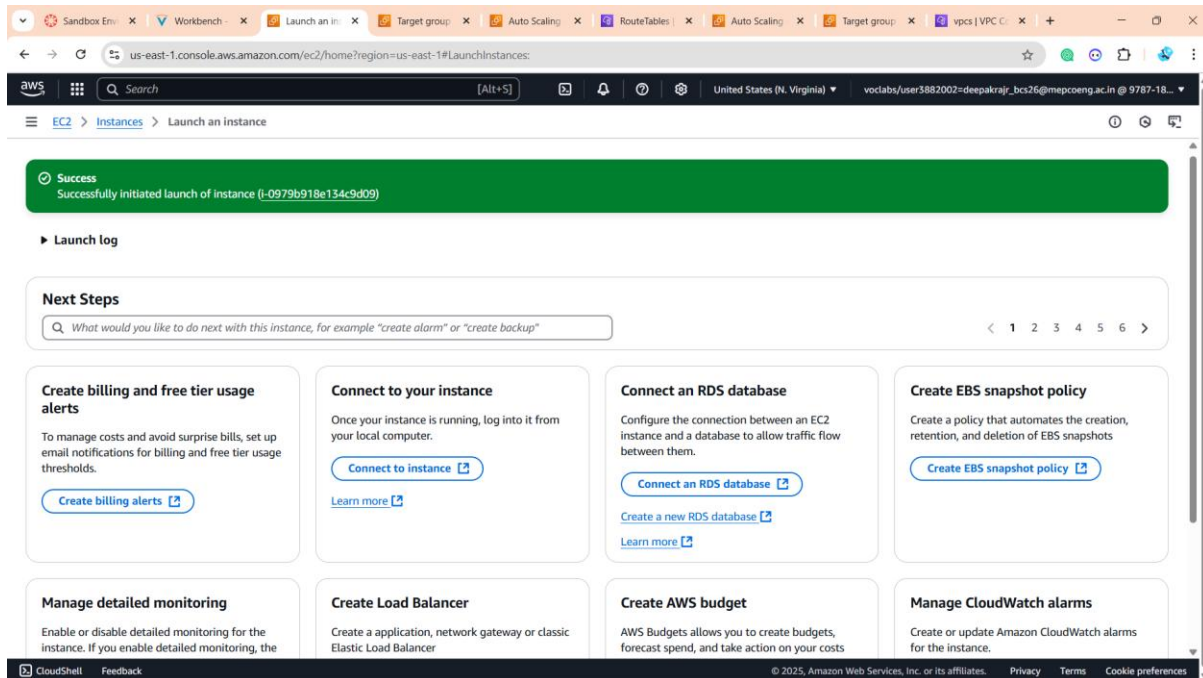
Topology

How to Configure Developer's push their website code by using SFTP Protocol in Linux Server with AWS EC2 with Elastic IP Address

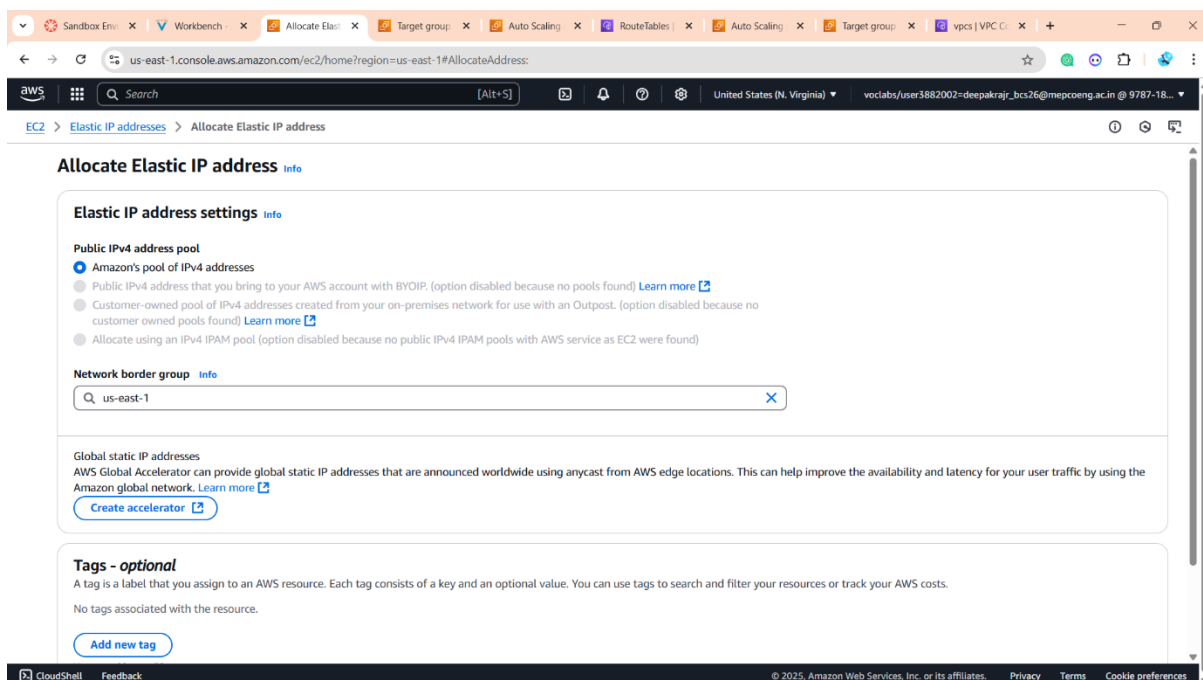


Execution Tasks:

Step1: Launch an EC2 Linux Instance

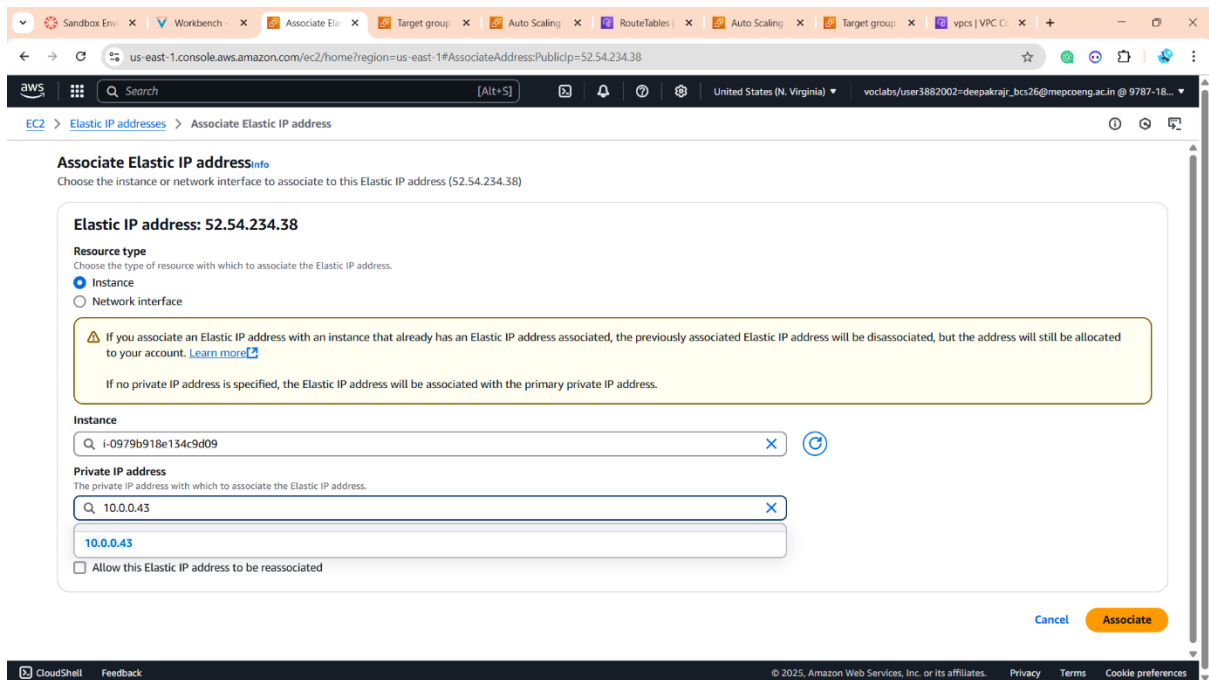


Step2: Associate an Elastic IP

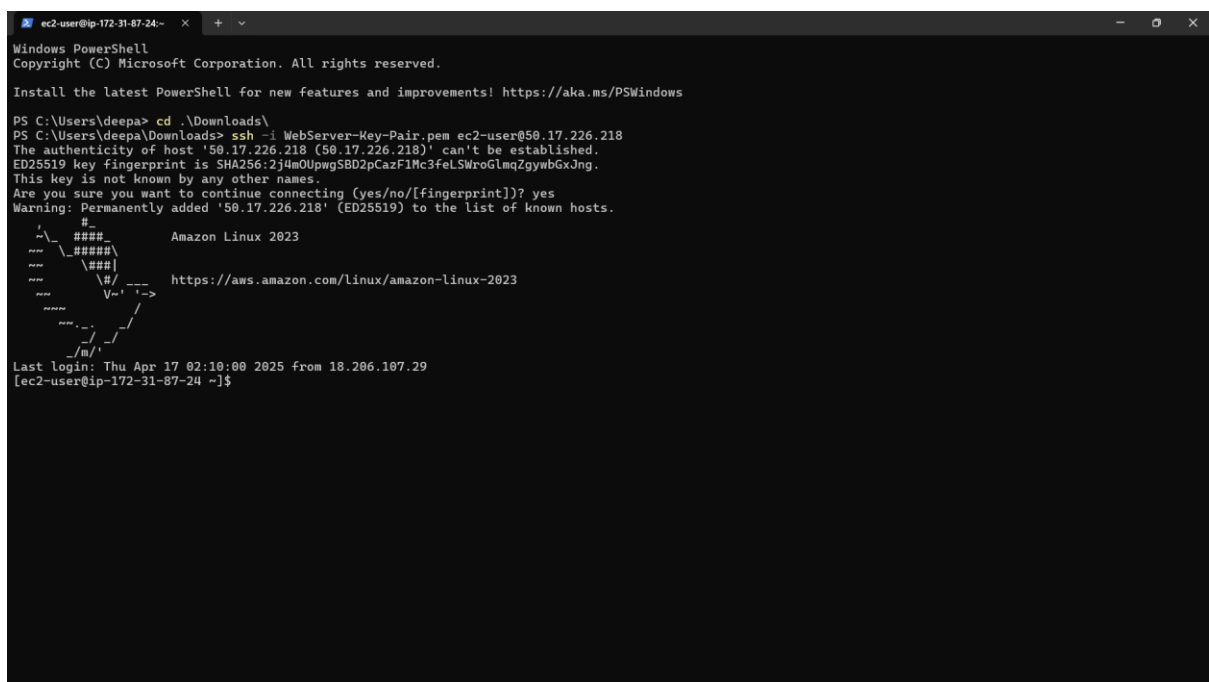


Step3: Associate with Instance





Step4: Connect to the Instance and Configure Apache



Step5: Create a Sample Web Page



```
ec2-user@ip-172-31-87-24 ~$  
Installing      : mod_httpd-2.0.27-1.amzn2023.0.3.x86_64          9/12  
Installing      : mod_lua-2.4.62-1.amzn2023.x86_64             10/12  
Installing      : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch 11/12  
Installing      : httpd-2.4.62-1.amzn2023.x86_64              12/12  
Running scriptlet: httpd-2.4.62-1.amzn2023.x86_64              12/12  
Verifying       : apr-1.7.5-1.amzn2023.0.4.x86_64             1/12  
Verifying       : apr-util-1.6.3-1.amzn2023.0.1.x86_64        2/12  
Verifying       : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64 3/12  
Verifying       : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch 4/12  
Verifying       : httpd-2.4.62-1.amzn2023.x86_64              5/12  
Verifying       : httpd-core-2.4.62-1.amzn2023.x86_64         6/12  
Verifying       : httpd-filesystem-2.4.62-1.amzn2023.noarch    7/12  
Verifying       : httpd-tools-2.4.62-1.amzn2023.x86_64        8/12  
Verifying       : libbrotli-1.0.9-4.amzn2023.0.2.x86_64       9/12  
Verifying       : mailcap-2.1.49-3.amzn2023.0.3.noarch        10/12  
Verifying       : mod_httpd-2.0.27-1.amzn2023.0.3.x86_64      11/12  
Verifying       : mod_lua-2.4.62-1.amzn2023.x86_64            12/12  
=====
```

WARNING:
A newer release of "Amazon Linux" is available.

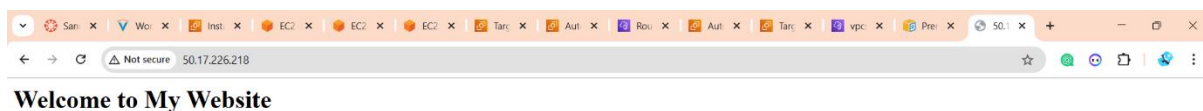
Available Versions:
Version 2023.7.20250414:
Run the following command to upgrade to 2023.7.20250414:
dnf upgrade --releasever=2023.7.20250414

Release notes:
<https://docs.aws.amazon.com/linux/al2023/release-notes/relnotes-2023.7.20250414.html>

=====

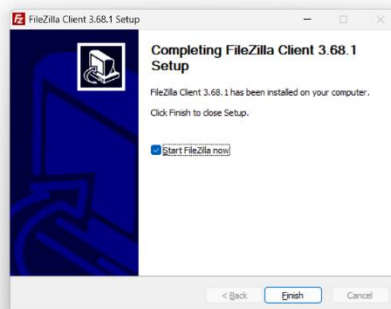
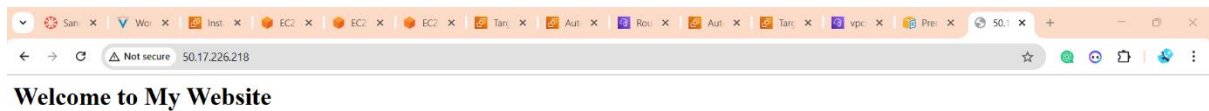
```
Installed:  
apr-1.7.5-1.amzn2023.0.4.x86_64      apr-util-1.6.3-1.amzn2023.0.1.x86_64      apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64  
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch  httpd-2.4.62-1.amzn2023.x86_64      httpd-core-2.4.62-1.amzn2023.x86_64  
httpd-filesystem-2.4.62-1.amzn2023.noarch      httpd-tools-2.4.62-1.amzn2023.x86_64      libbrotli-1.0.9-4.amzn2023.0.2.x86_64  
mailcap-2.1.49-3.amzn2023.0.3.noarch      mod_httpd-2.0.27-1.amzn2023.0.3.x86_64      mod_lua-2.4.62-1.amzn2023.x86_64  
Complete!  
[ec2-user@ip-172-31-87-24 ~]$ sudo systemctl start httpd  
[ec2-user@ip-172-31-87-24 ~]$ sudo systemctl enable httpd  
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.  
[ec2-user@ip-172-31-87-24 ~]$
```

Step6: From a browser, navigate to public IP of instance to see the webpage.



Step7: Configure SFTP Connection





Step10: Test Web Client Access

