

TASK 2

DEPLOY A VIRTUAL MACHINE & INSTALL WEB SERVER

GOAL :

Launch an EC2/Compute Engine VM and configure Apache / nginx web server.

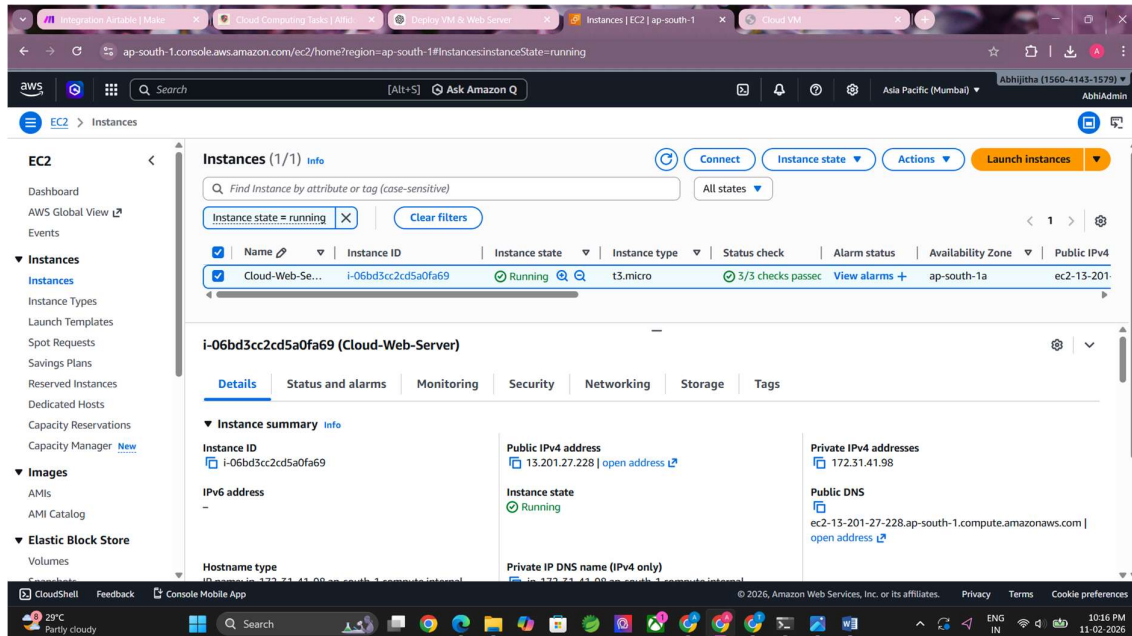
Requirements

- Create VM instance (Ubuntu)
- Configure firewall rules (port 80)
- Install Apache or nginx
- Display a custom “Hello from Cloud VM” page

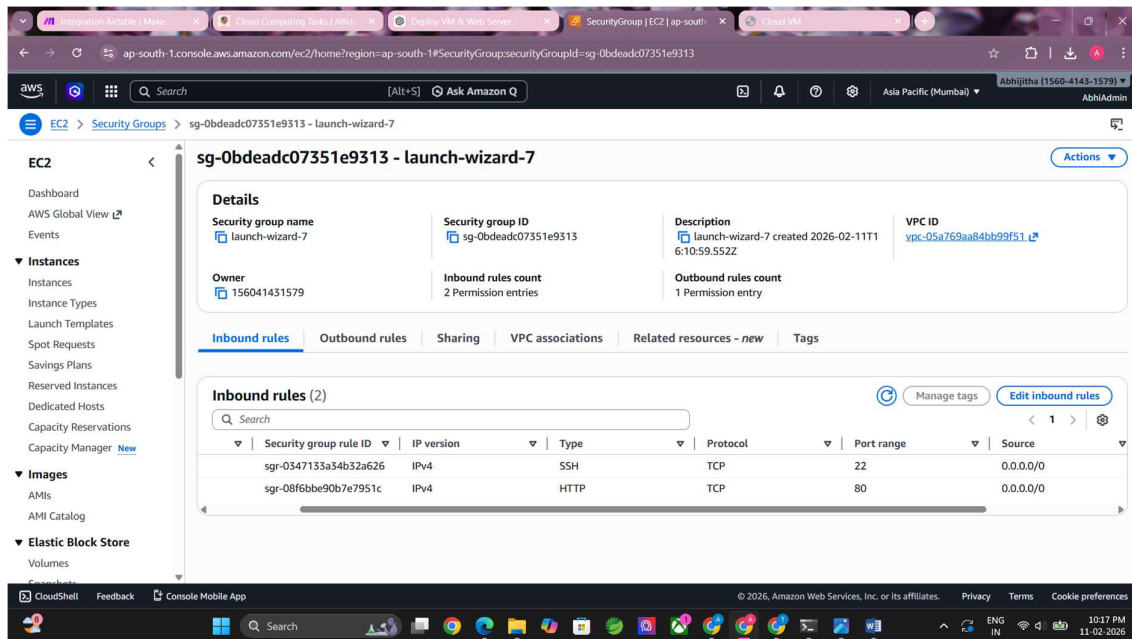
Deliverables

1. Public VM IP with live page
2. Commands used & screenshots

1 . EC2 Instance Running :



2 . Security Group Inbound Rules :



3 .Terminal – Apache Installed & Running :

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.26100.7623]
(c) Microsoft Corporation. All rights reserved.

D:\4 th sem B.Tech IT\Cloud\PemKeys\cloud>ssh -i cloud.pem ec2-user@13.201.27.228

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Amazon Linux 2023

https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-172-31-41-98 ~]$ sudo yum update -y
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-41-98 ~]$ sudo yum install httpd -y
Last metadata expiration check: 0:00:43 ago on Wed Feb 11 16:29:18 2026.
Dependencies resolved.

=====
Package                                Architecture Version                                Repository                                Size
=====
Installing:
httpd                                  x86_64    2.4.66-1.amzn2023.0.1                    amazonlinux                                47 k
Installing dependencies:
apr                                    x86_64    1.7.5-1.amzn2023.0.4                    amazonlinux                                129 k
apr-util                              x86_64    1.6.3-1.amzn2023.0.2                    amazonlinux                                97 k
apr-util-ldap                         x86_64    1.6.3-1.amzn2023.0.2                    amazonlinux                                13 k
generic-logos-httpd                  noarch    18.0.0-12.amzn2023.0.3                  amazonlinux                                19 k
httpd-core                           x86_64    2.4.66-1.amzn2023.0.1                    amazonlinux                                1.4 M
httpd-filesystem                     x86_64    2.4.66-1.amzn2023.0.1                    amazonlinux                                13 k
httpd-tools                          x86_64    2.4.66-1.amzn2023.0.1                    amazonlinux                                81 k
libbrotli                             x86_64    1.0.9-4.amzn2023.0.2                    amazonlinux                                315 k
mailcap                              noarch    2.1.49-3.amzn2023.0.3                  amazonlinux                                33 k
Installing weak dependencies:
apr-util-openssl                     x86_64    1.6.3-1.amzn2023.0.2                    amazonlinux                                15 k
mod_http2                            x86_64    2.0.27-1.amzn2023.0.3                  amazonlinux                                166 k
mod_lua                              x86_64    2.4.66-1.amzn2023.0.1                    amazonlinux                                60 k
=====
```

```
C:\Windows\System32\cmd.exe
Verifying      : mod_http2-2.0.27-1.amzn2023.0.3.x86_64      12/13
Verifying      : mod_lua-2.4.66-1.amzn2023.0.1.x86_64      13/13

Installed:
apr-1.7.5-1.amzn2023.0.4.x86_64          apr-util-1.6.3-1.amzn2023.0.2.x86_64
apr-util-lmdb-1.6.3-1.amzn2023.0.2.x86_64  apr-util-openssl-1.6.3-1.amzn2023.0.2.x86_64
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch  httpd-2.4.66-1.amzn2023.0.1.x86_64
httpd-core-2.4.66-1.amzn2023.0.1.x86_64  httpd-filesystem-2.4.66-1.amzn2023.0.1.noarch
httpd-tools-2.4.66-1.amzn2023.0.1.x86_64  libbrotli-1.0.9-4.amzn2023.0.2.x86_64
mailcap-2.1.49-3.amzn2023.0.3.noarch      mod_http2-2.0.27-1.amzn2023.0.3.x86_64
mod_lua-2.4.66-1.amzn2023.0.1.x86_64

Complete!
[ec2-user@ip-172-31-41-98 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-41-98 ~]$ sudo systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service + /usr/lib/systemd/system/httpd.service.
[ec2-user@ip-172-31-41-98 ~]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)
   Active: active (running) since Wed 2026-02-11 16:30:17 UTC; 27s ago
     Docs: man:httpd.service(8)
   Main PID: 22730 (httpd)
   Status: "Total requests: 0; Idle/Busy workers 100/0; Requests/sec: 0; Bytes served/sec: 0 B/sec"
    Tasks: 177 (limit: 1067)
   Memory: 13.3M
      CPU: 96ms
   CGroup: /system.slice/httpd.service
           └─22730 /usr/sbin/httpd -DFOREGROUND
             └─22832 /usr/sbin/httpd -DFOREGROUND
               └─22837 /usr/sbin/httpd -DFOREGROUND
                 └─22840 /usr/sbin/httpd -DFOREGROUND
                   └─22866 /usr/sbin/httpd -DFOREGROUND

Feb 11 16:30:17 ip-172-31-41-98.ap-south-1.compute.internal systemd[1]: Starting httpd.service - The Apache HTTP Server.
Feb 11 16:30:17 ip-172-31-41-98.ap-south-1.compute.internal systemd[1]: Started httpd.service - The Apache HTTP Server.
Feb 11 16:30:17 ip-172-31-41-98.ap-south-1.compute.internal httpd[22730]: Server configured, listening on: port 80

[ec2-user@ip-172-31-41-98 ~]$ cd /var/www/html
[ec2-user@ip-172-31-41-98 html]$ pwd
/var/www/html
[ec2-user@ip-172-31-41-98 html]$ sudo nano index.html
```

4. Terminal – Custom Page Created :

```
C:\Windows\System32\cmd.exe
Verifying      : mod_http2-2.0.27-1.amzn2023.0.3.x86_64      12/13
Verifying      : mod_lua-2.4.66-1.amzn2023.0.1.x86_64      13/13

Installed:
apr-1.7.5-1.amzn2023.0.4.x86_64          apr-util-1.6.3-1.amzn2023.0.2.x86_64
apr-util-lmdb-1.6.3-1.amzn2023.0.2.x86_64  apr-util-openssl-1.6.3-1.amzn2023.0.2.x86_64
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch  httpd-2.4.66-1.amzn2023.0.1.x86_64
httpd-core-2.4.66-1.amzn2023.0.1.x86_64  httpd-filesystem-2.4.66-1.amzn2023.0.1.noarch
httpd-tools-2.4.66-1.amzn2023.0.1.x86_64  libbrotli-1.0.9-4.amzn2023.0.2.x86_64
mailcap-2.1.49-3.amzn2023.0.3.noarch      mod_http2-2.0.27-1.amzn2023.0.3.x86_64
mod_lua-2.4.66-1.amzn2023.0.1.x86_64

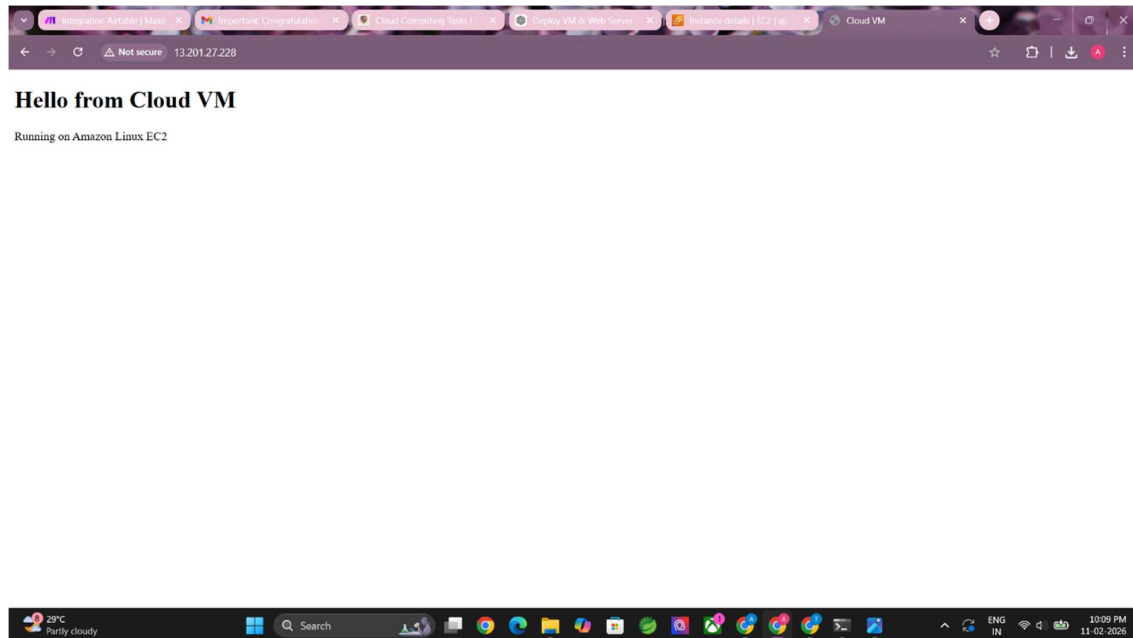
Complete!
[ec2-user@ip-172-31-41-98 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-41-98 ~]$ sudo systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service + /usr/lib/systemd/system/httpd.service.
[ec2-user@ip-172-31-41-98 ~]$ sudo systemctl status httpd
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Feb 11 16:30:17 ip-172-31-41-98.ap-south-1.compute.internal httpd[22730]: Server configured, listening on: port 80

[ec2-user@ip-172-31-41-98 ~]$ cd /var/www/html
[ec2-user@ip-172-31-41-98 html]$ pwd
/var/www/html
[ec2-user@ip-172-31-41-98 html]$ sudo nano index.html
```

5 . Browser – Live Website :

<http://13.201.27.228>



1 . PUBLIC VM IP :

13.201.27.228

2 . COMMANDS USED :

```
sudo yum update -y
```

```
sudo yum install httpd -y
```

```
sudo systemctl start httpd
```

```
sudo systemctl enable httpd
```

```
cd /var/www/html
```

```
sudo nano index.html
```