

Why do we need to host html/txt file to web browser?

We host HTML and TXT files on a web server so that they can be delivered over the internet and interpreted by a web browser.

This process enables users to view web pages and read text files remotely, regardless of their physical location.

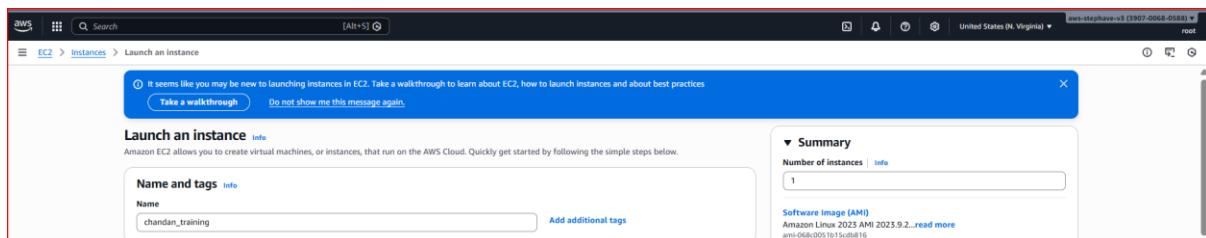
## Login to AWS console

The screenshot shows the AWS Console Home page. On the left, there's a sidebar with 'Recently visited' services: EC2, AWS Artifact, IAM, S3, AWS Application Migration Service, Billing and Cost Management, Trusted Advisor, and ElastiCache. Below this is a 'View all services' link. To the right, there's a 'Applications' section with a 'Create application' button, a 'Cost and usage' section with an 'Upgrade plan' button, and other links like 'Console Mobile App', 'CloudShell', 'Feedback', and 'Cookie preferences'. The top bar includes a search bar, a 'United States (N. Virginia)' dropdown, and a 'root' user indicator.

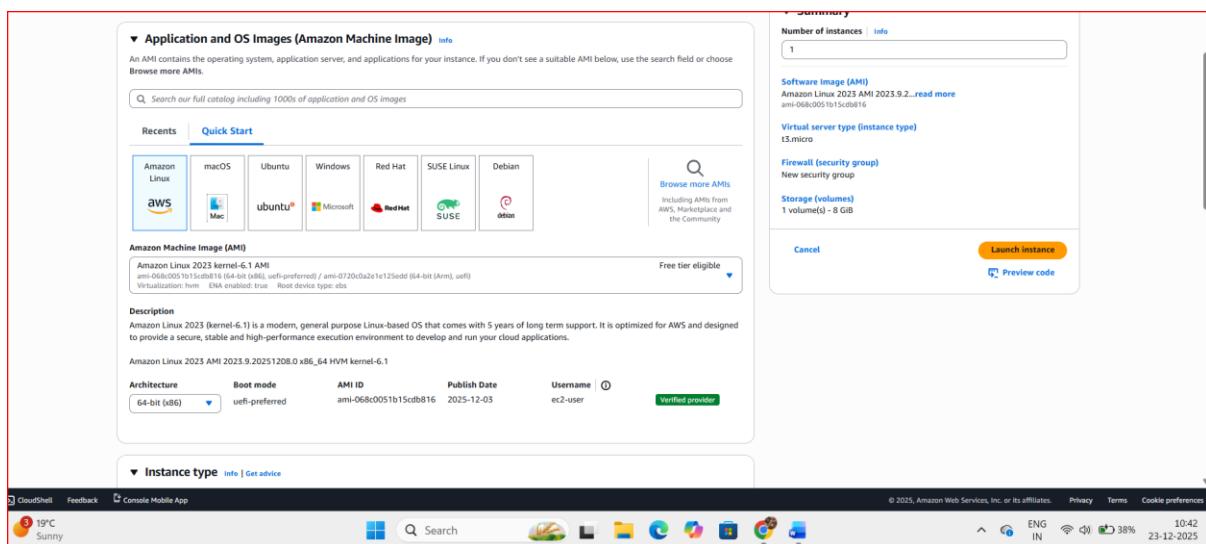
Select EC2 and click on Launch Instance

The screenshot shows the EC2 Compute page. On the left, there's a sidebar with 'EC2' selected, followed by 'Dashboard', 'EC2 Global View', 'Events', 'Instances' (with sub-options like 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Capacity Manager'), 'Images' (with sub-options like 'AMIs', 'AMI Catalog'), and 'Elastic Block Store' (with sub-option 'Volumes'). The main content area features a large banner for 'Amazon Elastic Compute Cloud (EC2)' with the subtext 'Create, manage, and monitor virtual servers in the cloud.' Below the banner, there's a 'Benefits and features' section with a heading 'EC2 offers ultimate scalability and control' and a list of bullet points: 'Highest level of control of the entire technology stack, allowing full integration with all AWS services', 'Widest variety of server size options', 'Widest availability of operating systems to choose from including Linux, Windows, and macOS', and 'Global scalability'. To the right, there are three call-to-action buttons: 'Launch a virtual server' (highlighted in orange), 'View dashboard', and 'Get started walkthroughs'. Below these are sections for 'Additional actions' (with links to 'View running instances' and 'Migrate a server') and 'Pricing (US)'. The bottom of the page includes standard AWS footer links: 'CloudShell', 'Feedback', 'Console Mobile App', '© 2025, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

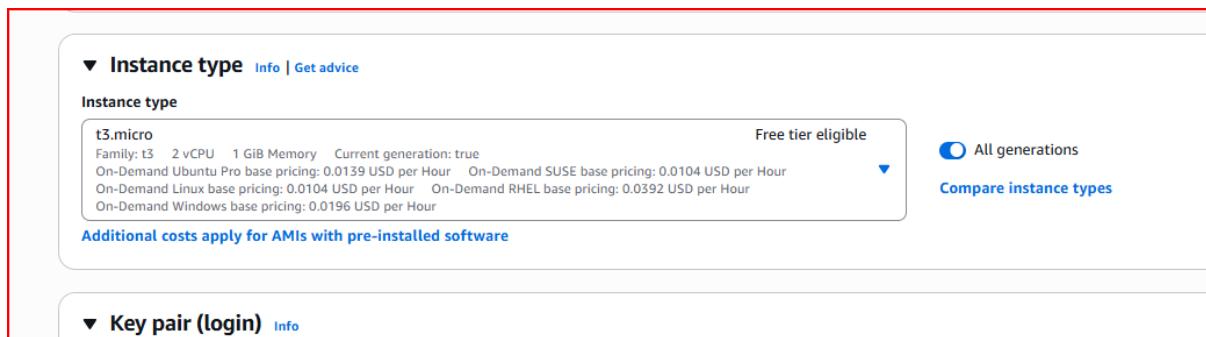
Give the name for your instance. Here we have named it as Chandan\_Training



Select an operating system. For e.g select Amazon Linux.



In instance type, Select t3.micro (Free tier eligible)



Click on Create Key pair

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

Select [Create new key pair](#)

Enter keypair name which you can easily remember->key pair type- keypair file format. For this one I have selected .pem and click on create key pair

**Create key pair** X

**Key pair name**  
Key pairs allow you to connect to your instance securely.

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

**Key pair type**

RSA RSA encrypted private and public key pair

ED25519 ED25519 encrypted private and public key pair

**Private key file format**

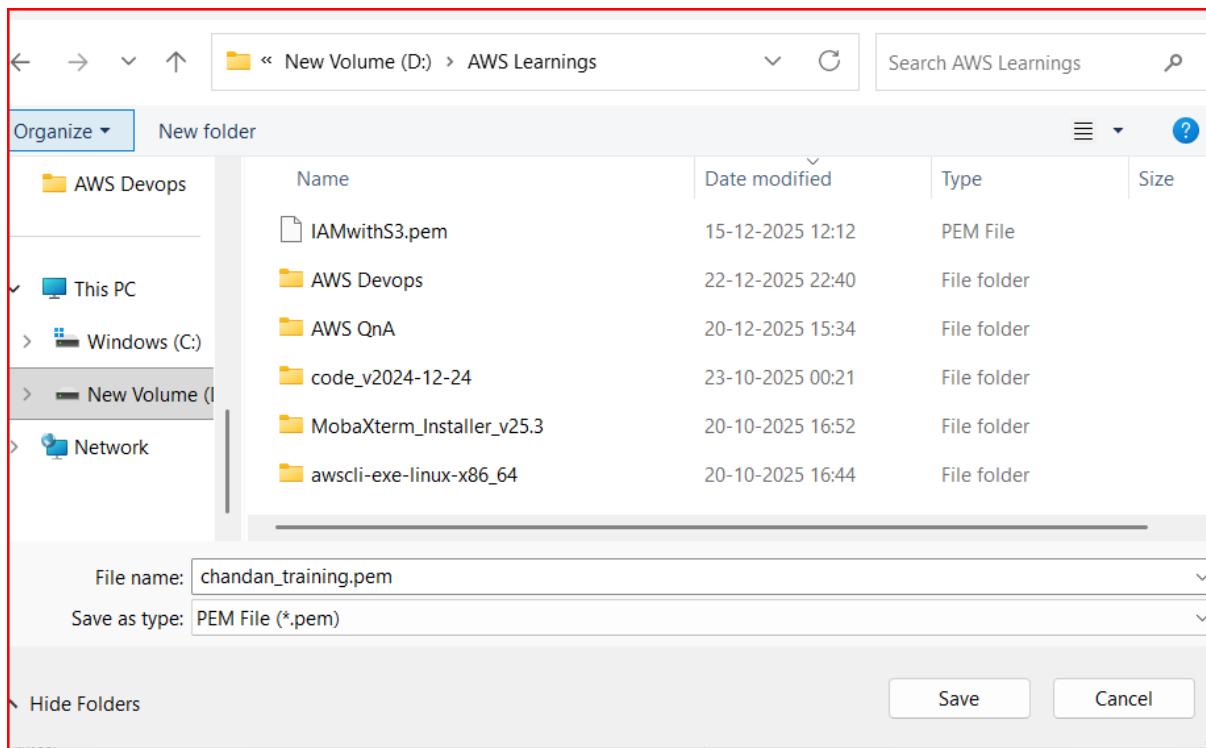
.pem For use with OpenSSH

.ppk For use with PuTTY

**⚠️** When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more ↗](#)

[Cancel](#) [Create key pair](#)

Key get generated and save it on your drive folder. Key pair get saved.



## Network Setting

You can enable all ports for learning purpose where port allowed traffic

**Network settings**

**Network** | [Info](#) | [Edit](#)

vpc-0bafe695f6f748f16

**Subnet** | [Info](#)

No preference (Default subnet in any availability zone)

**Auto-assign public IP** | [Info](#)

Enable

**Firewall (security groups)** | [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group    Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

- Allow SSH traffic from Anywhere  
Helps you connect to your instance
- Allow HTTPS traffic from the internet  
To set up an endpoint, for example when creating a web server
- Allow HTTP traffic from the internet  
To set up an endpoint, for example when creating a web server

**Warning:** Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Note:- Security group either you can create new or select existing group if available.

[AWS [Security Groups](#) are virtual firewalls for EC2 instances, controlling inbound/outbound traffic via stateful rules (allow by default for responses) based on protocol, port, and source/destination]

## Storage Configuration

Storage configuration in AWS EC2 involves choosing from several options to meet different requirements for persistence, performance, and scalability. The primary storage types are **Amazon Elastic Block Store (EBS)** and **Instance Store**, which can be complemented by other AWS storage services like Amazon S3, EFS, and FSx.

The screenshot shows the 'Configure storage' section of the AWS EC2 instance creation wizard. It displays the following details:

- Root volume: 8 GiB gp3, 3000 IOPS, Not encrypted.
- Add new volume button.
- Click refresh to view backup information: Tags determine if the instance will be backed up by Data Lifecycle Manager policies.
- File systems: 0 x File systems.
- Advanced link.

## Click on Launch Instance

The screenshot shows the 'Summary' section of the AWS EC2 instance creation wizard, summarizing the configuration:

- Firewall (security groups): Create security group selected.
- Software Image (AMI): Amazon Linux 2023 AMI 2023.9.2... (ami-068c0051b15cd816).
- Virtual server type (instance type): t3.micro.
- Firewall (security group): New security group.
- Storage (volumes): 1 volume(s) - 8 GiB.
- Launch instance button highlighted.

Other sections visible include Firewall (security groups), Configure storage, and Advanced details.

To verify instance status go EC2-> View All Instances -> You will be able to see your new instance.

The screenshot shows the AWS EC2 Instances page. The left sidebar has sections for Dashboard, EC2 Global View, Events, Instances (selected), Images, Elastic Block Store, Network & Security, and more. The main area displays 'Instances (2) info' with a table. The table has columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, Public IPv4 DNS, Public IPv4, Elastic IP, and IPv6 IPs. Two rows are listed:

- IAMwithS3**: Instance ID i-09b59479fc21c10, Stopped, t3.micro, View alarms +, us-east-1f, ec2-35-175-201-57.co..., 35.175.201.57
- chandan\_training**: Instance ID i-036a6f7742ad8cf22, Running, t3.micro, Initializing, View alarms +, us-east-1f, ec2-35-175-201-37.co..., 35.175.201.37

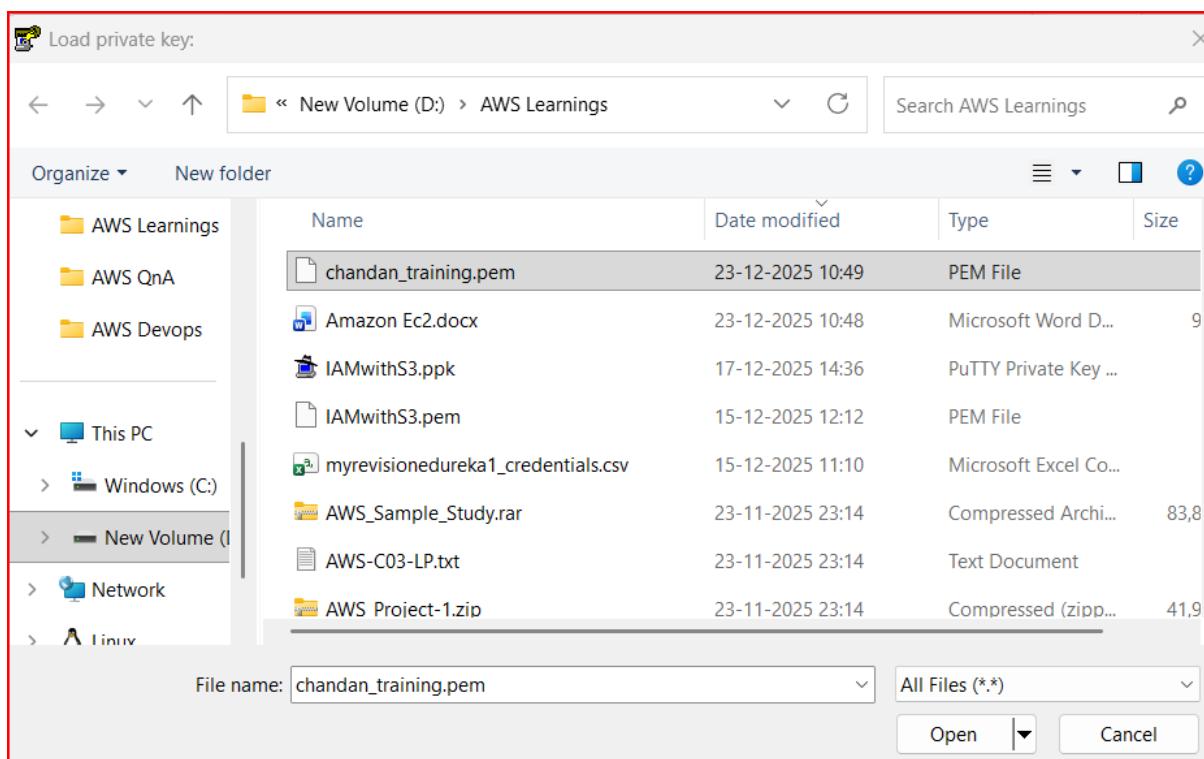
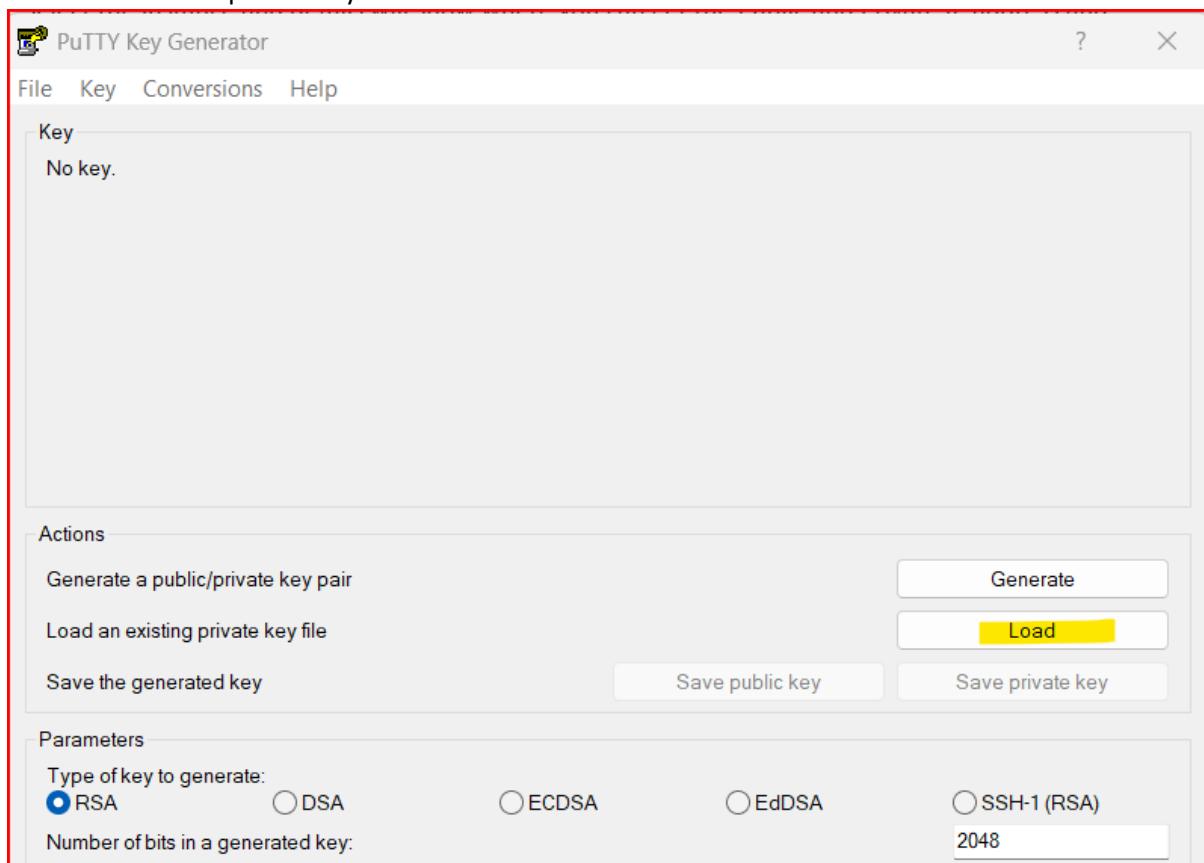
Select the instance and details will show where you can get the Public and Private IP address and other details related to your instance.

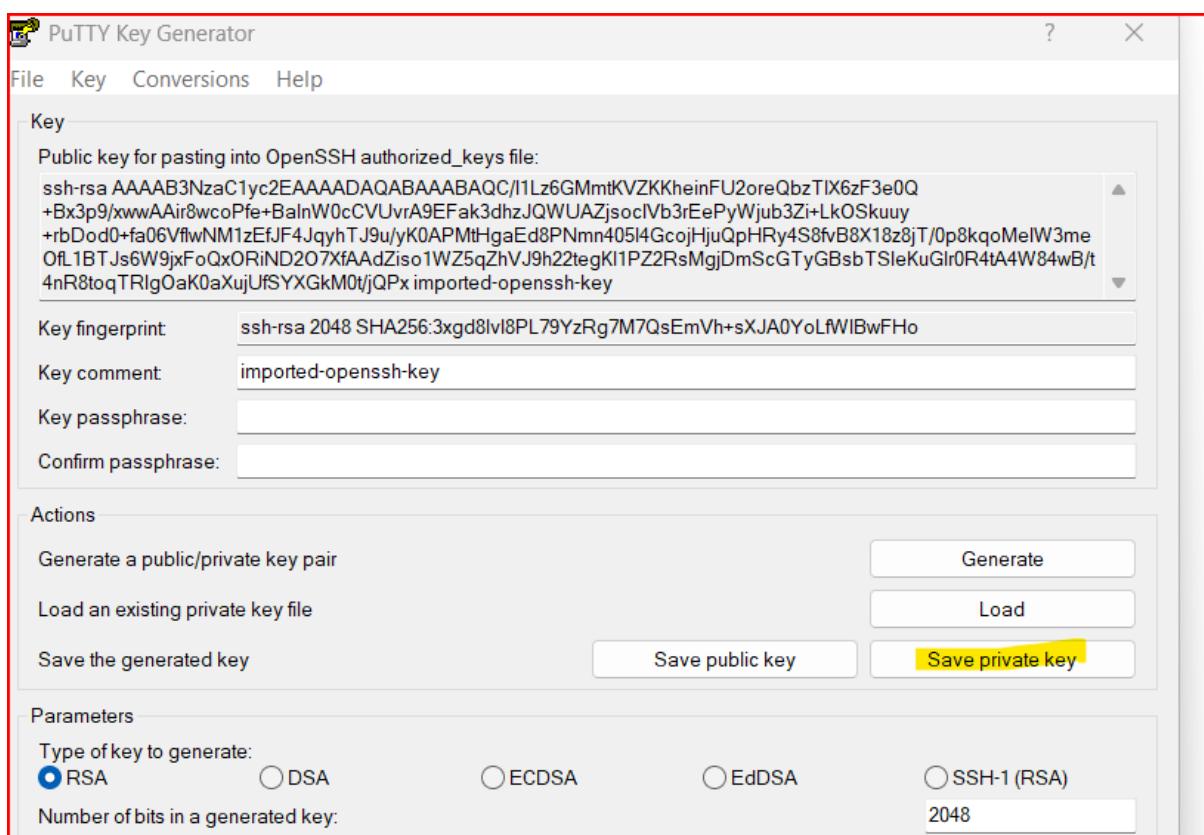
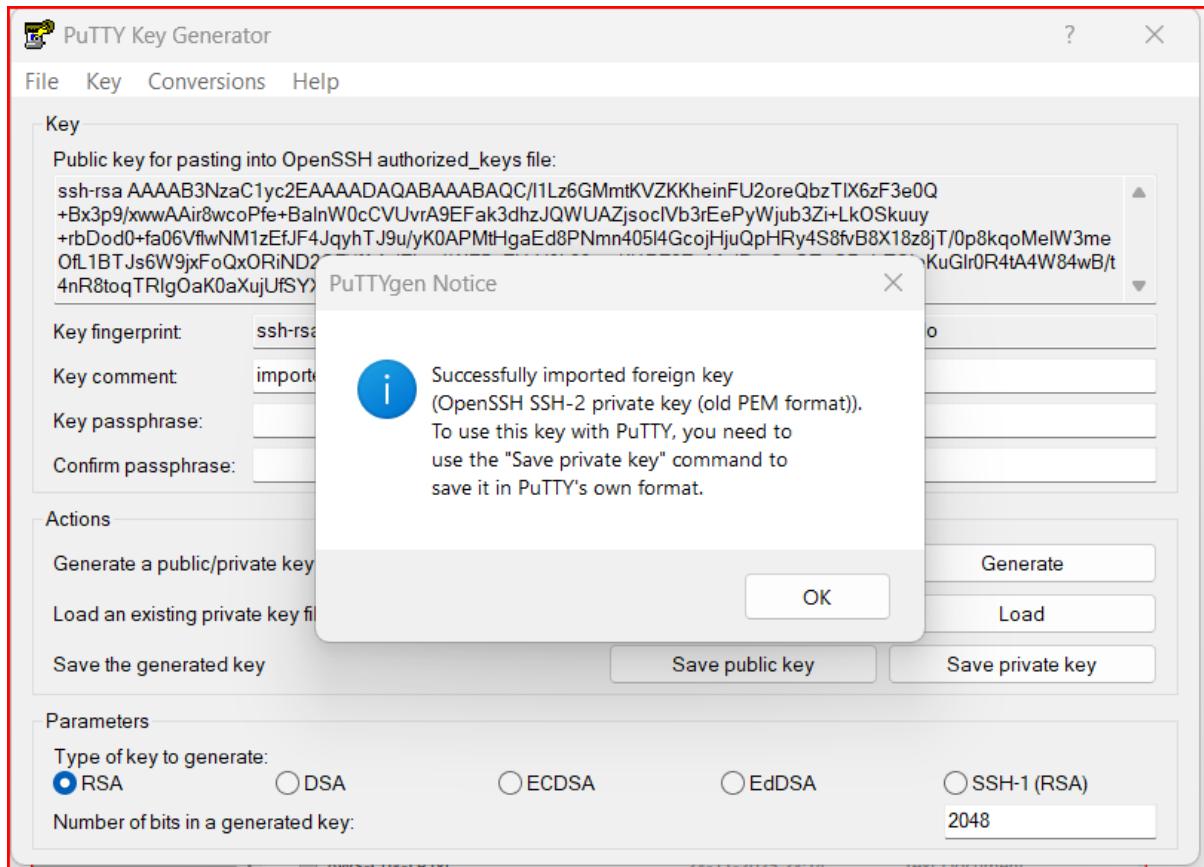
The screenshot shows the 'Details' tab of the EC2 Instance Details page for instance chandan\_training (Instance ID i-036a6f7742ad8cf22). The page includes tabs for Details, Status and alarms, Monitoring, Security, Networking, Storage, and Tags. The 'Instance summary' section shows the instance ID, IP address (35.175.201.37), state (Running), and private IP (172.51.71.130). It also lists the public DNS name (ec2-35-175-201-37.compute-1.amazonaws.com) and the instance's own DNS name (ip-172-51-71-130.ec2.internal). Other sections include Public IPv4 address, Private IPv4 addresses, and Public DNS.

Get Public IP or DNS name to connect it through internet. Also note the Instance Id to connect through CLI.

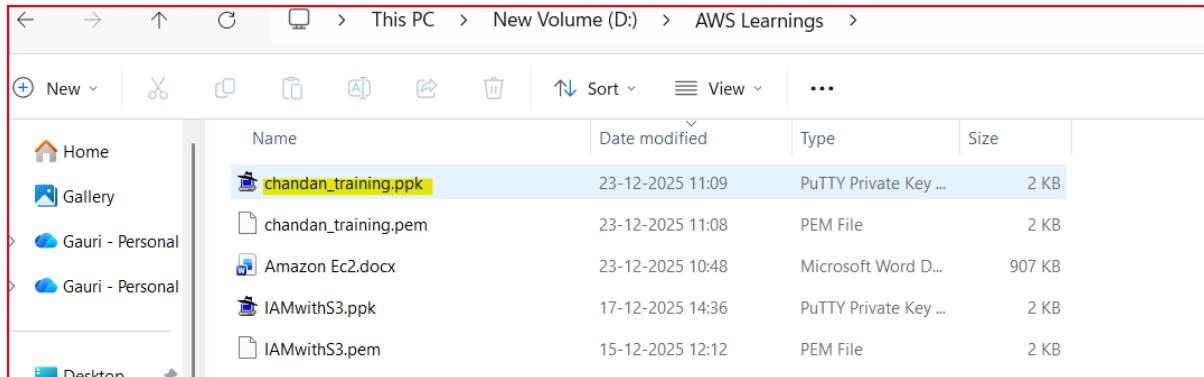
Download PuTTy through <https://www.putty.org> and install it. In your task bar of your local system, search for PuTTygen and select it. PuTTygen dialogue box appears, then select Load option. Search for the key pair file which would be in the .pem format and open it.

Click on “Load”, make file type as “All Files”, select the downloaded .pem file to convert it to .ppk file, and click on “Save private key”.



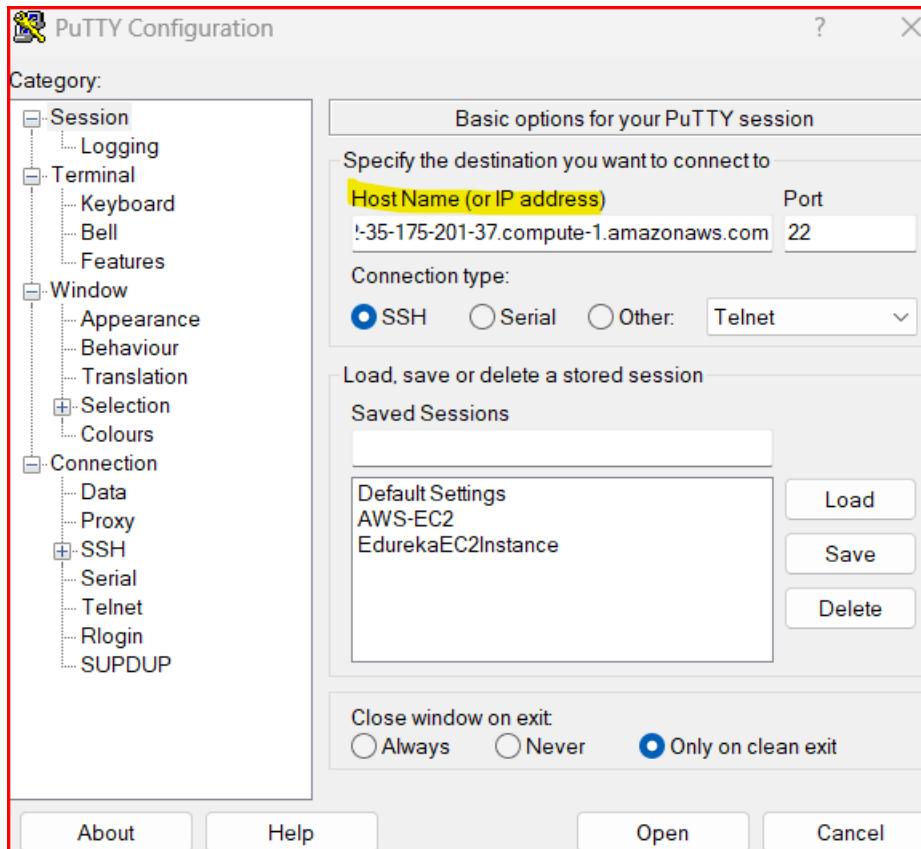


While saving the key change the file extension name from .pem to .ppk and key will be saved in .ppk format

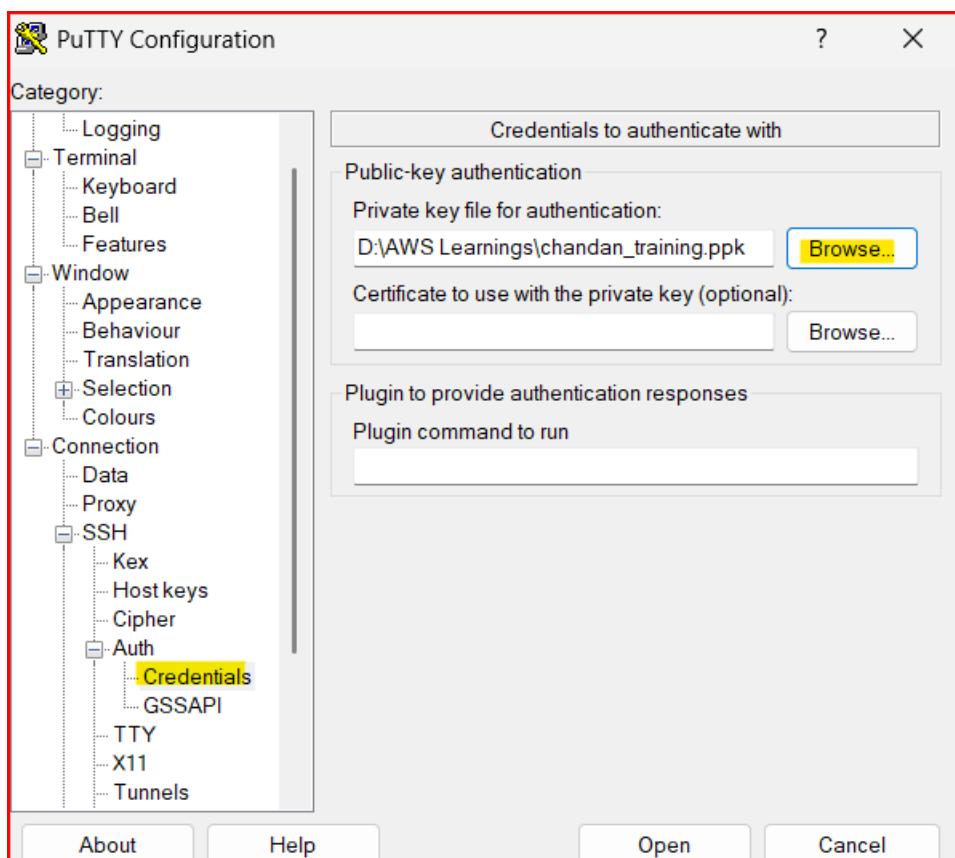
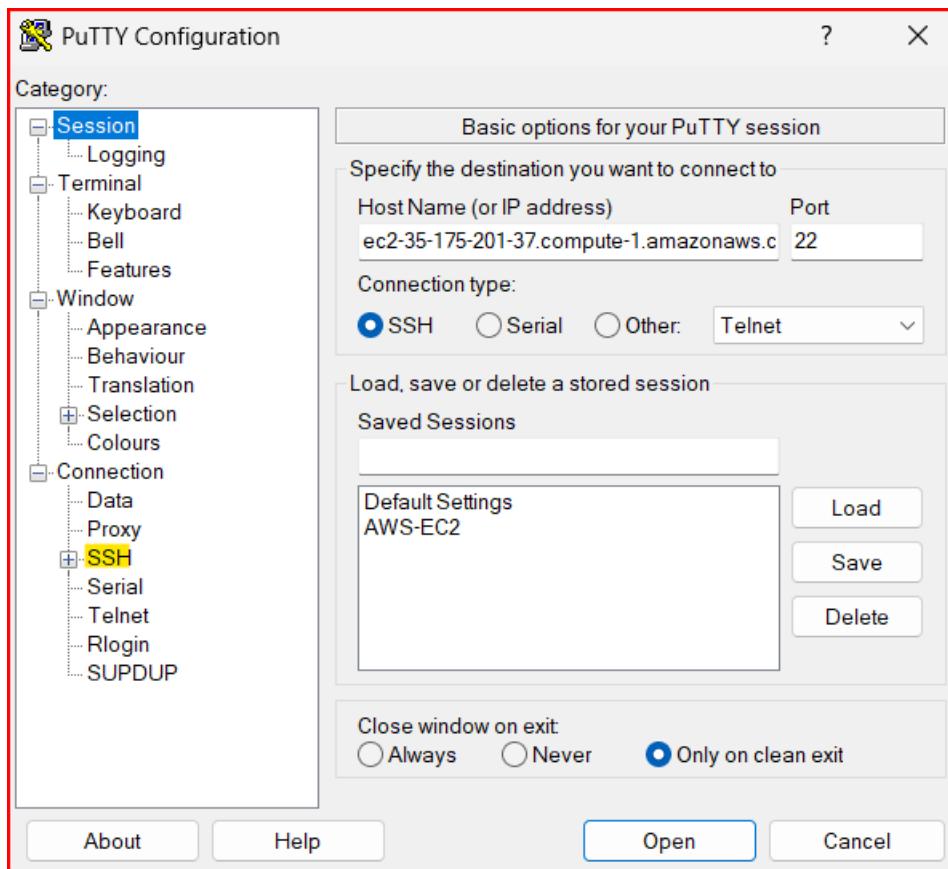


Now we are going to connect the EC2 instance through SSH. For this first copy the DNS name or Public IP.

Open he Putty app and paste the copied Instance DNS/ IP address in Host name.



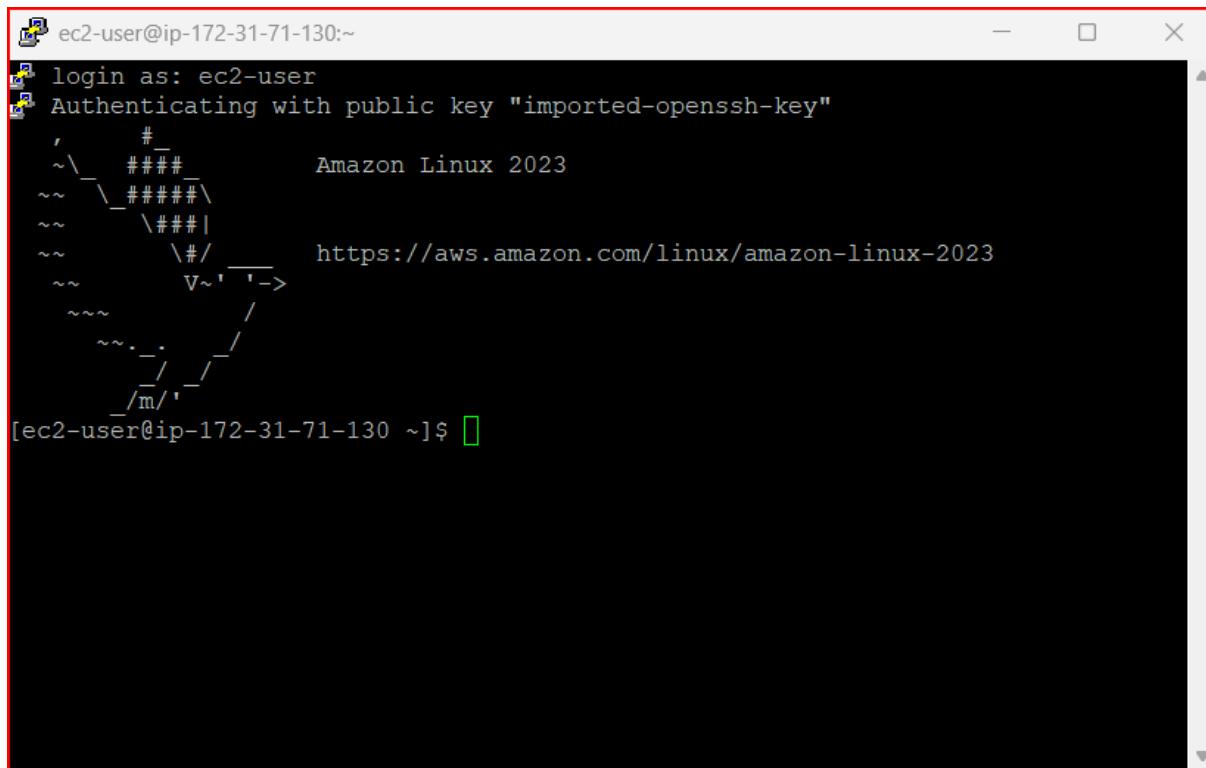
Click on highlighted SSH-> AUTH-> Credential-> Browse private key-> Click to Open



Below terminal will open



To login and start working with your instance type the User Name of instance. For Amazon Linux user will be ec2-user and for ubuntu user name will be ubuntu



To get your user name you can click on connect

The screenshot shows the AWS EC2 Instances page. There are two instances listed:

| Name             | Instance ID         | Instance state | Instance type | Status check      | Alarm status                  | Availability Zone | Public IPv4 DNS         | Public IPv4 IP | Elastic IP | IPv6 IPs |
|------------------|---------------------|----------------|---------------|-------------------|-------------------------------|-------------------|-------------------------|----------------|------------|----------|
| IAMwithSS3       | i-09b5947f9fc21c10  | Stopped        | t3.micro      | -                 | <a href="#">View alarms +</a> | us-east-1f        | -                       | -              | -          | -        |
| chandan_training | i-036a6f7742ad8cf22 | Running        | t3.micro      | 3/3 checks passed | <a href="#">View alarms +</a> | us-east-1f        | ec2-35-175-201-37.co... | 35.175.201.37  | -          | -        |

Below the table, the details for the selected instance 'i-036a6f7742ad8cf22 (chandan\_training)' are shown:

**Details** | Status and alarms | Monitoring | Security | Networking | Storage | Tags

The screenshot shows the 'Connect' dialog box for the instance 'i-036a6f7742ad8cf22 (chandan\_training)'. The 'EC2 Instance Connect' tab is selected.

**Connection type:**

- Connect using a Public IP  
Connect using a public IPv4 or IPv6 address
- Connect using a Private IP  
Connect using a private IP address and a VPC endpoint

**Username:**  
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ec2-user.

**Note:** In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

We have successfully connected to our Amazon Linux Instance using SSH

Now I followed the same and launched a ubuntu instance and able to login via SSH.

NOW we need to install the apache server in our Ubuntu instance. For this enter the below command

## Sudo apt update

```
Last login: Wed Dec 24 05:14:38 2025 from 18.206.107.27
ubuntu@ip-172-31-74-59:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [175 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [378 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [7312 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [10.5 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 kB]
Get:13 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21.5 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [71.4 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 kB]
Fetched 1044 kB in 1s (963 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
68 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

**sudo apt install apache2**

```
ubuntu@ip-172-31-74-59:~$ sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.58-1ubuntu8.8).
0 upgraded, 0 newly installed, 0 to remove and 68 not upgraded.
ubuntu@ip-172-31-74-59:~$ █
```

## Start Apache

**sudo systemctl start apache2**

**sudo systemctl enable apache2**

```
ubuntu@ip-172-31-74-59:~$ sudo systemctl start apache2
ubuntu@ip-172-31-74-59:~$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
ubuntu@ip-172-31-74-59:~$ █
```

## Check

**sudo systemctl status apache2**

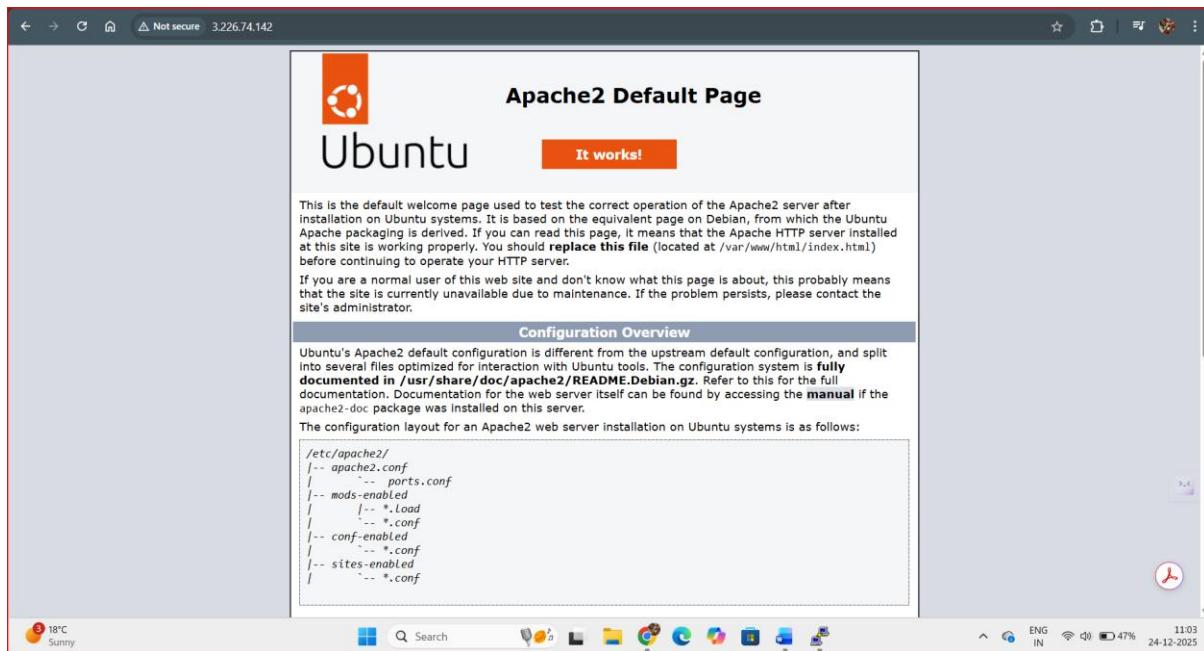
```
ubuntu@ip-172-31-74-59:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Wed 2025-12-24 04:51:46 UTC; 39min ago
     Docs: https://httpd.apache.org/docs/2.4/
 Main PID: 551 (apache2)
    Tasks: 55 (limit: 1017)
   Memory: 7.6M (peak: 8.4M)
      CPU: 168ms
     CGroub: /system.slice/apache2.service
             └─551 /usr/sbin/apache2 -k start
                 ├─552 /usr/sbin/apache2 -k start
                 ├─554 /usr/sbin/apache2 -k start

Dec 24 04:51:46 ip-172-31-74-59 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Dec 24 04:51:46 ip-172-31-74-59 systemd[1]: Started apache2.service - The Apache HTTP Server.
ubuntu@ip-172-31-74-59:~$ █
```

To check apache server is running enter this url into your browser

<http://Public IP address:80>

Note:- Public IP address is your EC2 ip address



## Go to website folder

This is the **only folder Apache reads by default:**

**cd /var/www/html**

Create your first website file

The default website file is:

**index.html**

Create and open it in vim:

Create a directory I have given the folder name Chandan

**mkdir Chandan**

**Where it was created:** In your **home directory**

creating a new folder on your computer

**cd chandan/**

Create a Text file :- vim hello.txt

```
ubuntu@ip-172-31-74-59:~$ mkdir chandan
ubuntu@ip-172-31-74-59:~$ cd chandan/
ubuntu@ip-172-31-74-59:~/chandan$ vim hello.txt
ubuntu@ip-172-31-74-59:~/chandan$
```

pressed i to go into **INSERT mode**

**Enter the comments and save**

Press ESC to exit from insert mode.

To save and quit type :wq and hit enter.

File get saved in your folder

```
Last login: Wed Dec 24 05:26:15 2025 from 58.84.62.215
ubuntu@ip-172-31-74-59:~$ cd chandan/
ubuntu@ip-172-31-74-59:~/chandan$ vim hello.txt
ubuntu@ip-172-31-74-59:~/chandan$ █
```

Find where your text file is saved

```
ubuntu@ip-172-31-74-59:~/chandan$ pwd  
/home/ubuntu/chandan  
ubuntu@ip-172-31-74-59:~/chandan$ █
```

Text file name

```
ubuntu@ip-172-31-74-59:~/chandan$ pwd  
/home/ubuntu/chandan  
ubuntu@ip-172-31-74-59:~/chandan$ ls  
hello.txt  
ubuntu@ip-172-31-74-59:~/chandan$
```

Move the text file to Apache web directory

Apache only serves files from **/var/www/html**.

Run

```
sudo mv /home/ubuntu/myfolder/test.txt /var/www/html/
```

```
ubuntu@ip-172-31-74-59:~/chandan$ sudo mv /home/ubuntu/chandan/hello.txt /var/www/html/  
ubuntu@ip-172-31-74-59:~/chandan$
```

Now the file is in the correct web location.

### Set correct permissions (**VERY IMPORTANT**)

Apache must be able to read the file.

```
ubuntu@ip-172-31-74-59:~/chandan$ sudo mv /home/ubuntu/chandan/hello.txt /var/www/html/  
ubuntu@ip-172-31-74-59:~/chandan$ sudo chmod 644 /var/www/html/hello.txt  
ubuntu@ip-172-31-74-59:~/chandan$
```

### Verify Apache is running

```
ubuntu@ip-172-31-74-59:~/chandan$ sudo systemctl status apache2  
● apache2.service - The Apache HTTP Server  
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)  
   Active: active (running) since Wed 2025-12-24 04:51:46 UTC; 1h 11min ago  
     Docs: https://httpd.apache.org/docs/2.4/  
    Main PID: 551 (apache2)  
       Tasks: 55 (limit: 1017)  
      Memory: 8.2M (peak: 8.7M)  
        CPU: 272ms  
       CGroup: /system.slice/apache2.service  
           ├─551 /usr/sbin/apache2 -k start  
           ├─552 /usr/sbin/apache2 -k start  
           └─554 /usr/sbin/apache2 -k start  
  
Dec 24 04:51:46 ip-172-31-74-59 systemd[1]: Starting apache2.service - The Apache HTTP Server...  
Dec 24 04:51:46 ip-172-31-74-59 systemd[1]: Started apache2.service - The Apache HTTP Server.  
ubuntu@ip-172-31-74-59:~/chandan$
```

Get your server's Public IP

```
curl ifconfig.me
```

```
Dec 24 04:51:46 ip-172-31-74-59 systemd[1]: Started apache2.service - The Apache HTTP Server.  
ubuntu@ip-172-31-74-59:~/chandan$ curl ifconfig.me  
3.226.74.142ubuntu@ip-172-31-74-59:~/chandan$
```

### Open the text file in browser

Now open **any browser** and type:

```
http://3.226.74.142/hello.txt
```

### **(Important for EC2) Check Security Group**

If page doesn't open:

1. Go to **AWS EC2 → Security Groups**
2. Edit **Inbound Rules**
3. Ensure this exists:

**Type Port Source**

HTTP 80 0.0.0.0/0

Steps to check if a web browser is running

Sudo lsof -l -P -n | grep LISTEN

Check the file permission also by - sudo chmod 644 /var/www/html/hello.txt

If all inbound rule of the security group are as expected and file permission given then below is the result you will get.

