Host a PHP website on an EC2 Instance in AWS.

Step 1 : Create an EC2 instance.

Sign-in into your AWS account and go to the EC2 service console.

Select **Launch Instance** option, provide name for your instance and select the machine image you want. I am using an Ubuntu image for this task.

Next select the Key-Pair that you will use to connect to your instance. While adding the security group to your instance make sure that it allows the inbound traffic on port 22 for SSH and port 80 for Apache server.

Click on **Launch Instance** to launch your instance. Once the instance is in running state, use any terminal to SSH into your EC2 Instance.

Step 2 : Set up an Apache2 server.

To host a website we need to setup an Apache2 server on our EC2 machine. As we are using Ubuntu distribution, we need to update and upgrade local packages so that we don't need to worry about versions of packages we will install. Use following commands to update and upgrade the packages.

sudo apt-get update sudo apt-get upgrade

Now install the Apache2 server using the following command.

sudo apt-get install apache2

```
root@ip-172-31-87-250: ~
                                                                                                                                                                            root@ip-172-31-87-250:~#
root@ip-172-31-87-250:~# apt-get install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
    apache2-bin apache2-data apache2-utils bzip2 libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
    liblua5.3-0 mailcap mime-support ssl-cert
 Suggested packages:
apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser bzip2-doc
The following NEW packages will be installed:
apache2 apache2-bin apache2-data apache2-utils bzip2 libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
  liblua5.3-0 mailcap mime-support ssl-cert
0 upgraded, 13 newly installed, 0 to remove and 3 not upgraded.
Need to get 2139 kB of archives.
After this operation, 8518 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libapr1 amd64 1.7.0-8ubuntu0.22.04.1 [108
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1 amd64 1.6.1-5ubuntu4.22.04.2
92.8 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.1-5ubunt
u4.22.04.2 [11.3 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1-ldap amd64 1.6.1-5ubuntu4.22.0
4.2 [9170 B]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 liblua5.3-0 amd64 5.3.6-1build1 [140 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-bin amd64 2.4.52-1ubuntu4.7 [1346
```

Step 3: Install PHP and libapache2-mod-php packages.

If we want to host a PHP website, we need to install PHP and libapache2-mod-php package on our EC2 machine. This packages provide PHP backend and library files that we need to host PHP website on an apache2 server.

To install these packages, use the following command-

sudo apt-get install php libapache2-mod-php

```
X
 ot@ip-172-31-87-250: ~
 oot@ip-172-31-87-250:~# apt-get install php libapache2-mod-php
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php8.1 php-common php8.1 php8.1-cli php8.1-common php8.1-opcache php8.1-readline
Suggested packages:
php-pear
The following NEW packages will be installed:
  libapache2-mod-php libapache2-mod-php8.1 php php-common php8.1-cli php8.1-common php8.1-opcache
  php8.1-readline
0 upgraded, 9 newly installed, 0 to remove and 3 not upgraded.
Need to get 5133 kB of archives.
After this operation, 21.13 MB of additional disk space will be used.

Do you want to continue? [Y/n] y

Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 php-common all 2:92ubuntu1 [12.4 kB]

Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php8.1-common amd64 8.1.2-1ubuntu2.14 [112
7 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php8.1-opcache amd64 8.1.2-1ubuntu2.14 [36
5 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php8.1-readline amd64 8.1.2-1ubuntu2.14 [1
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php8.1-cli amd64 8.1.2-1ubuntu2.14 [1834 k
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libapache2-mod-php8.1 amd64 8.1.2-1ubuntu2
.14 [1766 kB]
Get:¬̃ http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libapache2-mod-php all 2:8.1+92ubuntu1 [2898 B]
```

Run the following command to check whether packages are installed successfully or not.

php -version

```
| Toot@ip-172-31-87-250:~# php -version
| PHP 8.1.2-1ubuntu2.14 (cli) (built: Aug 18 2023 11:41:11) (NTS)
| Copyright (c) The PHP Group
| Zend Engine v4.1.2, Copyright (c) Zend Technologies
| with Zend OPcache v8.1.2-1ubuntu2.14, Copyright (c), by Zend Technologies
| root@ip-172-31-87-250:~#
```

Now download the PHP website template using following command.

wget <url>

```
root@in-172-31-87-250: /var/www/html
                                                                                                                                                                          П
root@ip-172-31-87-250:~# wget https://www.phpjabbers.com/free-car-rental-template-186.php#sectionDownload --2024-02-28 06:54:24-- https://www.phpjabbers.com/free-car-rental-template-186.php Resolving www.phpjabbers.com (www.phpjabbers.com)... 88.150.140.120 Connecting to www.phpjabbers.com (www.phpjabbers.com)|88.150.140.120|:443... connected. HTTP request sent, awaiting response... 200 OK Length: unspecified [text/html] Saving to: 'free-car-rental-template-186.php'
free-car-rental-template-186.
                                                                                                                                ] 93.53K 300KB/s
                                                                                                                                                                  in 0.3s
2024-02-28 06:54:25 (300 KB/s) - 'free-car-rental-template-186.php' saved [95773]
root@ip-172-31-87-250:~# ls
free-car-rental-template-186.php snap
root@ip-172-31-87-250:~# cd /var/www/html
  oot@ip-172-31-87-250:/var/www/html# ls
index.html
 root@ip-172-31-87-250:/var/www/html# rm -f index.html
 root@ip-172-31-87-250:/var/www/html# cd -
 root@ip-172-31-87-250:~# mv free-car-rental-template-186.php /var/www/html
 root@ip-172-31-87-250:~# cd /var/www/html
 root@ip-172-31-87-250:/var/www/html# ls
 free-car-rental-template-186.php
 root@ip-172-31-87-250:/var/www/html# _
```

Copy the downloaded file into /var/www/html/ directory and restart the apache server using following command.

service restart apache2

After restarting the server copy the public IP address of your EC2 instance and paste it in a search bar of the browser to visit your website.

