# **WEB STACK IMPLEMENTATION (LAMP STACK) IN AWS**

1. [AWS account setup and Provisioning an Ubuntu Server](https://www.youtube.com/watch?v=xxKuB9kJoYM&list=PLtPuNR8I4TvkwU7Zu0l0G_uwtSUXLckvh&index=6)
2. [Connecting to your EC2 Instance](https://www.youtube.com/watch?v=TxT6PNJts-s&list=PLtPuNR8I4TvkwU7Zu0l0G_uwtSUXLckvh&index=7)
3. connect your EC2 Instance to the **Putty** tool.

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**4.Install Apache using Ubuntu’s package manager**[**‘apt’**](https://en.wikipedia.org/wiki/APT_(software)):

#update a list of packages in package manager

**sudo apt update**

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#run apache2 package installation

**sudo apt install apache2**

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**sudo systemctl status apache2**

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**curl** [**http://localhost:80**](http://localhost:80)

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To test how our Apache HTTP server can respond to requests from the Internet.  
Open a web browser of your choice and try to access following url:

**http://<Public-IP-Address>:80**

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# 5.**STEP 2 — INSTALLING MYSQL**

**sudo apt install mysql-server**

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**sudo mysql**

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**ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql\_native\_password BY 'PassWord.1';**

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**Exit the MySQL shell with:**

**Exit**

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**sudo mysql\_secure\_installation**

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**When you’re finished, test if you’re able to log in to the MySQL console by typing:**

**sudo mysql -p**

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**To exit the MySQL console, type:**

**exit**

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**6.STEP 3 — INSTALLING PHP**

You have Apache installed to serve your content and MySQL installed to store and manage your data. [PHP](https://www.php.net/) is the component of our setup that will process code to display dynamic content to the end user. In addition to the php package, you’ll need php-mysql, a PHP module that allows PHP to communicate with MySQL-based databases. You’ll also need libapache2-mod-php to enable Apache to handle PHP files. Core PHP packages will automatically be installed as dependencies.

To install these 3 packages at once, run:

**sudo apt install php libapache2-mod-php php-mysql**

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Once the installation is finished, you can run the following command to confirm your PHP version:

**php -v**

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**7.STEP 4 — CREATING A VIRTUAL HOST FOR YOUR WEBSITE USING APACHE**

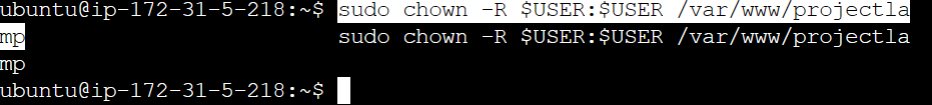
1.Create the directory for projectlamp using **‘mkdir’** command as follows:

**sudo mkdir /var/www/projectlamp**

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2.Next, assign ownership of the directory with your current system user:

**sudo chown -R $USER:$USER /var/www/projectlamp**



3.create and open a new configuration file in Apache’s sites-available directory using your preferred command-line editor. Here, we’ll be using vi or vim (They are the same by the way):

**sudo vi /etc/apache2/sites-available/projectlamp.conf**

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**Hint:**To save and close the file, simply follow the steps below:

1. Hit the esc button on the keyboard
2. Type :
3. Type wq. **w** for write and **q** for quit
4. Hit ENTER to save the file

4. use the **ls** command to show the new file in the **sites-available** directory

**sudo ls /etc/apache2/sites-available**

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5.use **a2ensite** command to enable the new virtual host:

**sudo a2ensite projectlamp**

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6.Disable the default website that comes installed with Apache. This is required if you’re not using a custom domain name, because in this case Apache’s default configuration would overwrite your virtual host. To disable Apache’s default website use **a2dissite** command , type:

**sudo a2dissite 000-default**

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7.To make sure your configuration file doesn’t contain syntax errors, run:

**sudo apache2ctl configtest**

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8. Reload Apache so these changes take effect:

**sudo systemctl reload apache2**

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 The new website is now active, but the web root **/var/www/projectlamp** is still empty. Create an index.html file in that location so that we can test that the virtual host works as expected:

**sudo echo 'Hello LAMP from hostname' $(curl -s http://169.254.169.254/latest/meta-data/public-hostname) 'with public IP' $(curl -s http://169.254.169.254/latest/meta-data/public-ipv4) > /var/www/projectlamp/index.html**

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Edit the **/etc/apache2/mods-enabled/dir.conf** file and change the order in which the **index.php** file is listed within the **DirectoryIndex** directive:

**sudo vim /etc/apache2/mods-enabled/dir.conf**

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After saving and closing the file, you will need to reload Apache so the changes take effect:

**sudo systemctl reload apache2**

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Create a new file named index.php inside your custom web root folder:

**vim /var/www/projectlamp/index.php**

This will open a blank file. Add the following text, which is valid PHP code, inside the file:

<?php

phpinfo();

When you are finished, save and close the file, refresh the page and you will see a page similar to this:

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