

Hosting a Website in EC2

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Method 1

- Configure default apache server

Steps to follow to connect and configure:

1. Create a Sample web page
2. Create a ubuntu instance with ssh and http protocols (**choose anywhere**). If not available after launching the instance go and edit in the security groups of that instance.
3. Connect your instance through putty or ssh

```
chmod 400 My_Keypair.pem
```

```
ssh -i <your key a name>.pem ec2-user@ec2-184-72-204-112.compute-1.amazonaws.com
```

```
scp -i My_Keypair.pem samplefile.txt ec2-user@ec2-184-72-204-112.compute-1.amazonaws.com:~
```

- Copy files to a specific directory(**/var/www/html/**):
scp -i "WebSec.pem" hello.txt ubuntu@10.0.2.82:~/.

Optional

1. Create a Elastic-IP and associate with your EC2 instance

Configure your Web Server

1. **Update the server:** `sudo apt-get update`
2. **Install Lamp in server :** `sudo apt-get install lamp-server^`
 - Above command will install apache web server, php and Mysql
3. **Visit default page:** Now copy and paste the public DNS of your instance in the address bar of the browser and click enter ([index.html](#))
4. **Uploading Web Pages to WWW Folder:** After the web server has been installed you have to upload your web pages or project to the `/var/www/html/` of apache web server.
5. You can locate the folder using the following command
 - `cd /var/www/html`
6. **Create your working directory: (change mode to 777)**
 - `chmod 777 -R /var/www/html/`

7. Create password for mysql

- `sudo mysql_secure_installation`

- A series of prompts where you can make some changes to your MySQL installation's security options. Press Y and then ENTER to accept the defaults for all the subsequent questions. Press No for access **remote login**.
- Enter and then confirm a secure password of your choice. (**8 characters**)

- `mysql -u root -p`

- ***Alternative approach (if unable to log-in)***

1. `sudo su`

2. `sudo mysql`

3. `mysql > SELECT user, authentication_string, plugin, host FROM mysql.user;`

- root user does in fact authenticate using the **auth_socket** plugin. To configure the root account to authenticate with a password, run the following **ALTER USER**

4. `mysql > ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'password';`

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5. `FLUSH PRIVILEGES;` **Ctrl +D** to exit from mysql

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8. `sudo apt-get install phpmyadmin`
 - Choose **apache** and use **same password** used in mysql
9. `sudo service apache2 restart`
 - Latest changes will take effect by server
10. In browser type `instance_public_ip/phpmyadmin` and login with password
 - *Your server has been configured*

Optional

- In case of any file /directory **creation** / **access permission error** use:
 - `sudo chmod 777 filename` or `directory name`

Additional settings to enable error in browser

11. Enable **php error** in browser

- sudo **vi** /etc/php/7.2/apache2/php.ini
- Go to line number 479 and make **display_errors=On**
- Go to line number 490 and make **display_startup_errors=On**
- Escape key **:wq** (Save &Quit) or **:!q** (only Quit)
- sudo service apache2 restart

Task to perform: Create / copy a sample files

- Create
 - 1 PHP file
 - 1 HTML , 1 CSS, 1 JS file (Connect each other)
 - use vi editor
- Copy **webhosting** zip and **extract**
 - Copy the **webhosting** directory in the following path
 - /var/www/html/**webhosting** (Hint: **winscp** / **scp-ubuntu**)
 - `scp -i "WebSec.pem" hello.txt ec2-user@10.0.2.82: ~ /.`
- Execute **query.sql** file in phpMyAdmin under database name **demo**
- Perform changes in **config.php**
- In browser type **PublicIP/webhosting/login.php**
- **You are good to go.**

Method 2

- **Install Xampp**

- Login as superuser
 - Sudo su –
- Update Ubuntu OS Packages: **sudo apt-get update**
- Stop Default Apache: **sudo /etc/init.d/apache stop**
- **Install Xampp**
 - **Download 64bit xampp**
 - **wget** <https://www.apachefriends.org/xampp-files/7.0.23/xampp-linux-x64-7.0.23-0-installer.run>
 - **Make Execute Installation: sudo chmod +x** xampp-linux-x64-7.0.23-0-installer.run

- **Run Installation**
- **sudo ./xampp-linux-x64-7.0.23-0-installer.run**
- Follow **XAMPP instructions**
 - **Type y for the prompted questions.**
- **sudo /opt/lampp/lampp start**
- Open your browser and access *http://IP-ADDRESS/*
- Click to phpmyadmin, you will find this Access forbidden screen.
- Edit XAMPP configurations
 - **sudo vim /opt/lampp/etc/extra/httpd-xampp.conf**


- Type I to go to insert mode.
- Go to <Directory> or <LocationMatch>
- Insert the following into the file after <Directory > line before the line ErrorDocument 403
/error/XAMPP_FORBIDDEN.html.var
 - AllowOverride AuthConfig Limit
 - Order deny, allow
 - Allow for all
 - Require all granted

or


```
<LocationMatch  
"^/(?i:(?:xampp|security|licenses|phpmyadmin|webalizer|se  
rver-status|server-info))">  
Order deny,allow  
Allow from all  
Allow from ::1 127.0.0.0/8 \  
fc00::/7 10.0.0.0/8 172.16.0.0/12 192.168.0.0/16 \  
fe80::/10 169.254.0.0/16  
ErrorDocument 403 /error/XAMPP_FORBIDDEN.html.var  
</LocationMatch>
```

- **Restart XAMPP: `sudo /opt/lampp/lampp restart`**
- **Security Settings: `sudo /opt/lampp/xampp security`**
 - XAMPP: Do you want to set a password? [yes] **no**
XAMPP: MySQL is accessible via network.
XAMPP: Normaly that's not recommended. Do you want me to turn it off? [yes] **yes**
XAMPP: Turned off.
 - XAMPP: The MySQL/phpMyAdmin user pma has no password set!!!
 - XAMPP: Do you want to set a password? [yes] **yes**
 - XAMPP: MySQL has no root passwort set!!!
 - XAMPP: Do you want to set a password? [yes] **yes**
 - XAMPP: The FTP password for user 'daemon' is still set to 'xampp'.
XAMPP: Do you want to change the password? [yes] **no**

- Access PhyMyAdmin at *<http://IP-Address/phpmyadmin/>*



The logo for phpMyAdmin, featuring a stylized sailboat with three sails in grey and white, and the text "phpMyAdmin" in a blue and orange font.

Log in 

Username:

Password:

Go

- `#sudo chmod -R 777 /opt/lampp/htdocs`
- `#ls -ld /opt/lampp/htdocs`
- `#exit [from su]`
- Whoami
- `sudo chown -R [Username]:[Groupname] /opt/lampp/htdocs`
- Create your own directories in htdocs
- Move the web pages from your home machine to the ec2 through filezilla or winscp

References

- LAMP
 - <https://comtechies.com/how-to-host-a-dynamic-php-website-on-amazon-ec2-and-static-website-on-s3.html>
- XAMPP
 - <https://www.9lessons.info/2015/12/amazon-ec2-setup-with-ubuntu-and-xampp.html>
- Application Link (Choose object-oriented)
 - <https://www.tutorialrepublic.com/php-tutorial/php-mysql-login-system.php>