Hosting a Website in EC2

TAMAL DEY

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Method 1

Steps to follow:

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
```

Optional

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

3

Configure your Web Server

1. **Update the server**: sudo apt-get update
2. **Install Lampserver :** sudo apt-get install lamp-server^
    1. 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**)

- ***Alternative approach***

  1. sudo su

  2. sudo mysql

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

     1. 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';

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

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 / directory name**

- 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 : wq (Save &Quit) or !q (only Quit)
  - sudo service apache2 restart

Create / copy a sample files

- sudo su
  - 1 PHP file
  - 1 HTML , 1 CSS, 1 JS file (Connect each other)
  - use vi editor

  - Copy the webhosing directory in the following path
    - /var/www/html/**webhosting** (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

- 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|server-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 accessable 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/*

- #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