REMOTE WORDPRESS INSTALLATION

AWS HOSTING

- Free option
- Cloud hosting
- Ability to scale up when you need more resources

LAMP STACK

- Linux - Operating System
- Apache - Web Server
- MySQL - Database
- PHP - programming language

GETTING SET UP

STEP 1: SIGN UP FOR AWS

1. Go to https://aws.amazon.com/free/ and create a Free Account.

STEP 2: LAUNCH AN EC2 INSTANCE

1. Access AWS Management Console
2. Click EC2
3. Click Launch Instance

STEP 3: CONFIGURE YOUR INSTANCE

1. Choose an Amazon Machine Image (AMI)
    - Search for Amazon Linux AMI and choose Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type
2. Choose an Instance Type (t2 micro selected by default)
3. Click Review and Launch
4. Accept the default values and click Launch at the bottom of the page.

STEP 4: CREATE A NEW KEY PAIR

1. You will be asked to choose an existing key pair or create a new key pair.
    - A key pair is used to securely access your Linux instance using SSH. AWS stores the public part of the key pair. You download and use the private part of the key pair.
2. Select Create a new key pair
3. Give it the name sait-wp
4. Download Key Pair and store it in a secure location. You can't lose this key.

GET INFORMATION ABOUT YOUR INSTANCE

1. Click View Instances
2. The Instance State column of your instance will change to "running" and a Public IP address will be shown.
3. Copy the Public IP address of your AWS instance.

OPEN UP GIT BASH

1. If you don't already have it, download Git for Windows (https://git-scm.com/download/win)
2. Run the download installer accepting the default settings. This will install Git Bash as part of Git.
3. Once installed, **right click** on your desktop and select Git Bash Here to open a Git Bash command prompt.

CONNECT TO YOUR INSTANCE

1. Use SSH to connect to your instance

```
ssh -i {full path of your .pem file} ec2-user@{instance IP address}
```

2. You should see something like this

```
The authenticity of host 'ec2-198-51-100-1.compute-1.amazonaws.com
(10.254.142.33)' can't be established. RSA key fingerprint is
1f:51:ae:28:df:63:e9:d8:cf:38:5d:87:2d:7b:b8:ca:9f:f5:b1:6f. Are you sure you want
to continue connecting (yes/no)?
```

3. Type yes and press enter.
4. You should see something like

```
Warning: Permanently added 'ec2-198-51-100-1.compute-1.amazonaws.com' (RSA) to the
list of known hosts.
```

and a welcome screen in your console.

PERFORM A SOFTWARE UPDATE ON YOUR INSTANCE

- This ensures that all of your software packages are up to date.

```
sudo yum update -y
```

INSTALL MULTIPLE SOFTWARE PACKAGES

1. Type into your terminal:

```
sudo yum install -y httpd24 php71 mysql56-server php71-
mysqlnd
```

- `httpd24` - Apache Server 2.4.38
- `php71` - PHP version 7.1
- `mysql56-server` - MySQL version 5.6

START THE APACHE WEB SERVER

1. In your terminal, start the web server:

```
sudo service httpd start
```

2. Use the `chkconfig` command to configure the Apache web server to start at each system boot.

```
sudo chkconfig httpd on
```

3. Verify that httpd is on by running:

```
chkconfig --list httpd
```

You'll want to see `httpd` on for 2, 3, 4, and 5

Runlevel descriptions

ADD A SECURITY RULE

Add a security rule to allow inbound HTTP (port 80) connections to your instance.

1. Go back to your running instance in AWS
2. Under Security groups, click launch-wizard-#
3. Under inbound tab, click Edit
4. Add Rule with the following values
    - Type: httpd
    - Protocol: TCP
    - Port Range: 80
    - Source: Custom
5. Test your web server. Type the public IP address of your instance into your web browser. You should see an Apache test page.

CREATE A PAGE TO TEST PHP INSTALLATION

We're going to create and edit some files through our console.

1. Change directory to `/var/www/html`

```
cd /var/www/html
```

2. Create a new file and open it in visual editor

```
vi test.php
```

3. Type `i` to start the insert mode.
4. Type `<?php phpinfo() ?>`
5. Press Escape to leave insert mode
6. Type `:wq` to write (save) the file and quite vi
7. Open your browser, go to your publicIPAddress/test.php

START THE MYSQL SERVER

1. Start MySQL:

```
sudo service mysqld start
```

2. Create your database

```
mysqladmin - u root create blog
```

- This will create a new database called blog

SECURE YOUR DATABASE

1. Secure your database:

```
mysql_secure_installation
```

2. This will start up a wizard for you. Answer the questions as follows:

   - Enter current password for root: Press return for none
   - Change Root Password: Y
   - New Password: Enter your new password
   - Remove anonymous user: Y
   - Disallow root login remotely: Y
   - Remove test database and access to it: Y
   - Reload privilege tables now: Y

INSTALL WORDPRESS

1. Make sure you're still inside `/var/www/html`
2. Get the latest version of WordPress

```
wget http://wordpress.org/latest.tar.gz
```

3. Uncompress the tar.gz file into the root folder

```
tar -xzvf latest.tar.gz --strip-components=1
```

RUN THE WORDPRESS INSTALLER

1. Open your browser and navigate to your public IP address
2. Go through the WordPress installer
3. When you type in the database connection details, these should work:
    - Database name: blog
    - Username: root
    - Password: the password you created when you secured your installation
    - Database Host: localhost
    - Table Prefix: wp_

MAKE PRETTY PERMALINKS WORK ON AWS

1. Make sure .htaccess exists on your server

```
sudo vi .htaccess
```

2. If empty, paste the default .htaccess into the editor. Make sure to save and exit with `:wq`
3. Create an override so that WordPress can use .htaccess
4. Open the httpd.conf file (configuration file)

```
sudo vi /etc/httpd/conf/httpd.conf
```

5. Find the section that starts with `<Directory "/var/www/html">`
6. Change `AllowOverride None` to `AllowOverride All` in **this** section
7. Save and exit with `:wq`

SET UP AN ELASTIC IP

- An elastic IP address is a static address that you associate with your AWS account. This prevents restarting your server from changing the address on you.
- In AWS Management Console, click Elastic IPs in the left navigation bar.
- Click Allocate New Address, and confirm by clicking the "Yes, Allocate" button
- Right-click the newly allocated IP address and select "Associate" in the popup menu. Select the instance you created and click "Yes, Associate"

CHANGE OUT YOUR OLD IP ADDRESS WITH NEW ONE

1. Download the wp-cli with the following command

```
curl -O https://raw.githubusercontent.com/wp-cli/builds/gh-pages/phar/wp-cli.phar
```

2. Search and replace your old IP address with your new one

```
php wp-cli.phar search-replace 'old_site_IP' 'new_site_IP' --path=/var/www/html --
skip-columns=guid
```