

# **Assignment 2**

## **Cloud Server Project**

Name: Nada Fathima

Student ID: 35485089

DNS: <https://myfittrack.it.com>

## Contents

S,No.	Contents	Page No.
1	Setting up Web Server	
2	Setting up Apache	
3	Setting up DNS	
4	Getting the SSL certificate	
5	Setting up WordPress on Ubuntu	

# Setting up Web Server

1. Launch the Ubuntu instance and attach the Elastic IP, then attach it to the instance.

Instances (1/2) Info

Last updated less than a minute ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

Instance state = running

Clear filters

< 1 >

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Pub
<input type="checkbox"/>	fittrack	i-0335413adbbe18d09	Running	t2.micro	1/2 checks passed	View alarms +	ap-south-1b	ec2-
<input checked="" type="checkbox"/>	website	i-0ba2a6bee3307a022	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b	ec2-

2. After allocating the Elastic IP, attach it to the instance and launch the instance.

Connect to instance Info

Connect to your instance i-0ba2a6bee3307a022 (website) using any of these options

EC2 Instance Connect

Session Manager

SSH client

EC2 serial console

Instance ID

i-0ba2a6bee3307a022 (website)

1. Open an SSH client.

2. Locate your private key file. The key used to launch this instance is website.pem

3. Run this command, if necessary, to ensure your key is not publicly viewable.

chmod 400 "website.pem"

4. Connect to your instance using its Public DNS:

ec2-13-203-214-184.ap-south-1.compute.amazonaws.com

Example:

ssh -i "website.pem" ubuntu@ec2-13-203-214-184.ap-south-1.compute.amazonaws.com

Note: In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Cancel

3. After copy pasting the above codes in the ubuntu terminal, you can access the instance.

## Setting up Apache

1. Install Apache in Ubuntu

```
sudo apt-get install apache2
```

2. After accessing, update & upgrade.

```
sudo apt update && sudo apt  
upgrade -y
```

3. Start Apache and enable it to start on boot

```
sudo systemctl start apache2  
sudo systemctl enable apache2
```

4. Check Apache status.

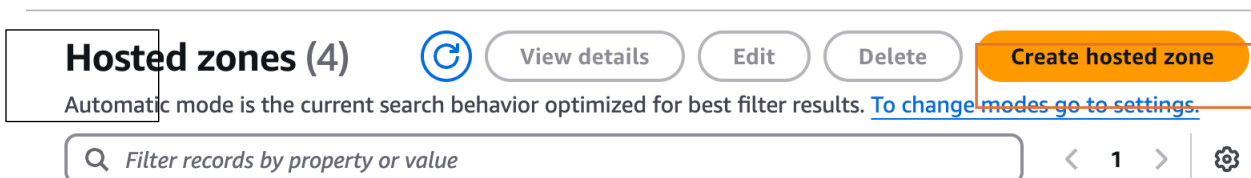
```
sudo systemctl status apache2
```

## Setting up DNS

1. Buy a domain name (from namecheap, GoDaddy, etc)



2. Use Route 53 as the hosting zone



3. Enter the details of your domain & set it as a Public hosted zone

### Create hosted zone [Info](#)

#### Hosted zone configuration

A hosted zone is a container that holds information about how you want to route traffic for a domain, such as example.com, and its subdomains.

##### Domain name [Info](#)

This is the name of the domain that you want to route traffic for.

myfittrack.it.com


Valid characters: a-z, 0-9, ! " # \$ % & ' ( ) \* + , - / : ; < = > ? @ [ \ ] ^ \_ ` { | } . ~

##### Description - optional [Info](#)

This value lets you distinguish hosted zones that have the same name.


4. Once the hosted zone is created, click on it & create an A record

**Records (3)** [Info](#)

 [Delete record](#) [Import zone file](#) [Create record](#)

Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

[Type](#) ▼ [Routing p...](#) ▼ [Alias](#) ▼

< 1 > 

5. Add in your public IP address, in the value section, set TTL to 300, and routing policy to Simple routing

**Record name** [Info](#)

myfittrack.it.com

Keep blank to create a record for the root domain.

**Record type** [Info](#)

[A – Routes traffic to an IPv4 address and so...](#) ▼

☐ Alias

**Value** [Info](#)

Enter multiple values on separate lines.

**TTL (seconds)** [Info](#)



[1m](#) [1h](#) [1d](#)

Recommended values: 60 to 172800 (two days)

**Routing policy** [Info](#)

[Simple routing](#) ▼

6. After creating your record, go to your domain host's website (namecheap in my case) & edit the settings of the advanced DNS.

<input type="checkbox"/> Type	Host	Value	TTL	
<input type="checkbox"/> A Record	@	13.203.214.184	Automatic	
<input type="checkbox"/> CNAME Record	www	myfittrack.it.com.	Automatic	

## Getting the SSL Certificate

### 1. Install Lets Encrypt SSL

```
sudo apt install certbot python3-certbot-apache -y  
sudo certbot --apache -d myfittrack.it.com
```

### 2. Get the Certificate for Apache

```
sudo certbot --apache
```



## Setting up Wordpress on Ubuntu

### 1. Update System & Install Required Packages

```
ssh -i "website.pem" ubuntu@ec2-13-203-214-184.ap-  
south-1.compute.amazonaws.com  
sudo apt update &&  
sudo apt upgrade -y
```

### 2. Install Apache, MySQL, and PHP

```
sudo apt install apache2 mysql-server php php-mysql libapache2-mod-php  
php-cli php-curl php-gd php-mbstring php-xml php-zip unzip -y
```

### 3. Create a MYSQL Database for Wordpress and login to MySQL

```
sudo mysql
```

### 4. Create a database and user for WordPress

```
CREATE DATABASE wordpress_db;  
  
CREATE USER 'nadafathima2006'@'localhost' IDENTIFIED BY  
'Singapore9087.?'];  
  
GRANT ALL PRIVILEGES ON wordpress_db.* TO  
'nadafathima2006'@'localhost';  
  
FLUSH PRIVILEGES;  
  
EXIT;
```

5. Download and configure Wordpress, and navigate to the Apache web root directory

```
cd /var/www/html  
  
sudo rm -rf *
```

6. Download and extract Wordpress

```
sudo wget https://wordpress.org/latest.zip  
  
sudo unzip latest.zip  
  
sudo mv wordpress/* .  
  
sudo rm -rf wordpress latest.zip
```

7. Set proper permissions

```
sudo chown -R www-data:www-  
data /var/www/html
```

8. Configure Wordpress to Use your Database

```
sudo cp wp-config-sample.php wp-config.php
```

9. Edit the file:

```
sudo nano wp-config.php
```

10. Update these lines with your database credentials

```
define('DB_NAME', 'wordpress_db');  
define('DB_USER', 'nadafathima2006r');  
define('DB_PASSWORD', 'Singapore9087.?'];  
define('DB_HOST', 'localhost');
```

*Save and Exit, Ctrl X, Y, then Enter*

11. Restart Apache

```
sudo systemctl restart apache2
```

12. Finish Wordpress Setup in Browser

Open your browser and visit your domain:

<http://myfittrack.it.com>

13. Follow the Wordpress installation wizard:

Select language

Enter Site Title (FitTrack)

Set Admin Username and Password

14. Now your logged into Wordpress & can start building your website

