Project Name: F&P Perfumes

Full name: Muhammad Ibrahim

Student ID: 35533927

Tutor Name: Hena Iqbal

Unit Code: ICT 1711

Unit Name: Introduction to Server Environment and Architecture

DNS: https://fpperfume.online

IP address: 13.60.210.153

Introduction:

My project is F&P Perfumes, it is an e-commerce website for my perfume business, which can be visited using this link https://fpperfume.online . The purpose of this website is to market perfume products, provide comprehensive descriptions, and include an e-commerce component to facilitate the buying process. In addition, the website will also include customer ratings, an information blog, and a newsletter subscription to foster interaction among users and build a base of loyal customers. The project utilizes AWS for hosting, VirtualBox for virtualization, and Ubuntu as the operating system.

Objective:

To create an immersive online destination for fragrance enthusiasts by offering a curated selection of premium perfumes, providing detailed product insights and delivering a seamless shopping experience. Ultimately, deriving brand awareness, customer engagement, and sales conversions.

Set up and configuration:

I choose Amazon Web Services (AWS) to host my server.

Steps while setting up

1. Log in to console: Go to AWS Management Console and login in using your cresidentials.
2. Launch an EC2 Instance:
   Search EC2 after logging in to AWS Management Console and select EC2 services.
   Then select the launch Instance option from the EC2 Dashboard.
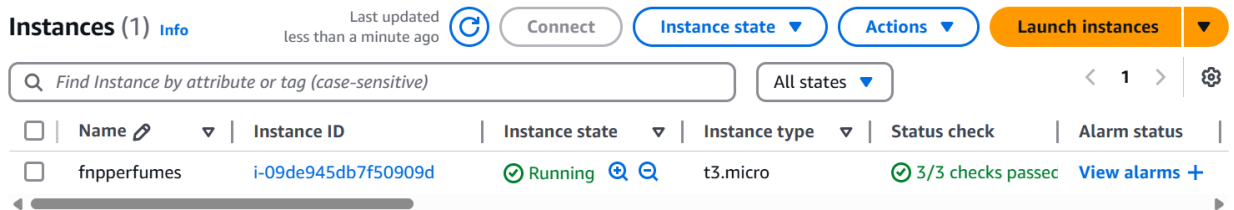   Choose Ubuntu in AMI options

Select t3.micro instance type which is within the free tier.
Enable both HTTPs ports and SSH port for traffic.
Creating a key pair name , in my case fpperfumes.
Launch Instance.

Instances (1) Info
Last updated less than a minute ago

Connect | Instance state ▼ | Actions ▼ | **Launch instances** ▼

Find Instance by attribute or tag (case-sensitive) | All states ▼ | ‹ 1 › ⚙

	Name 🖉	▽	Instance ID	Instance state	▽	Instance type	▽	Status check	Alarm status	
☐	fnpperfumes		i-09de945db7f50909d	⊘ Running 🔍⊕ 🔍⊖		t3.micro		⊘ 3/3 checks passed	View alarms +	

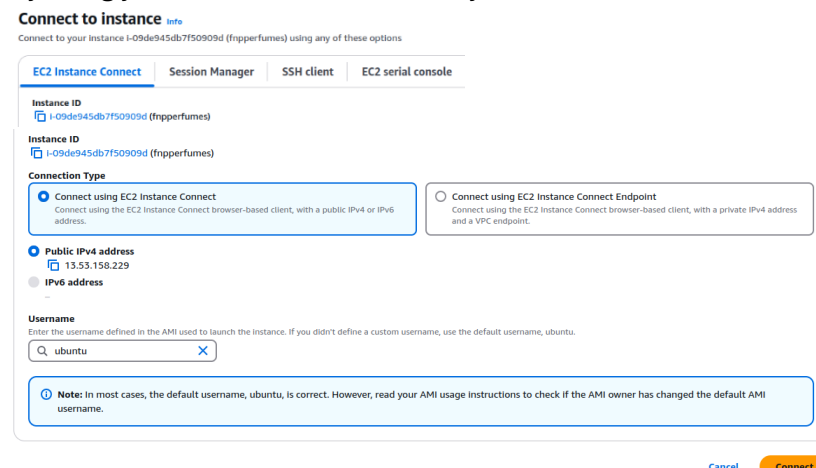3. Make your IP address Static:
   Go to EC2 dashboard and select Elastic IPs.
   Then select your IP address and allocate.
   Then associate it with your virtual machine.
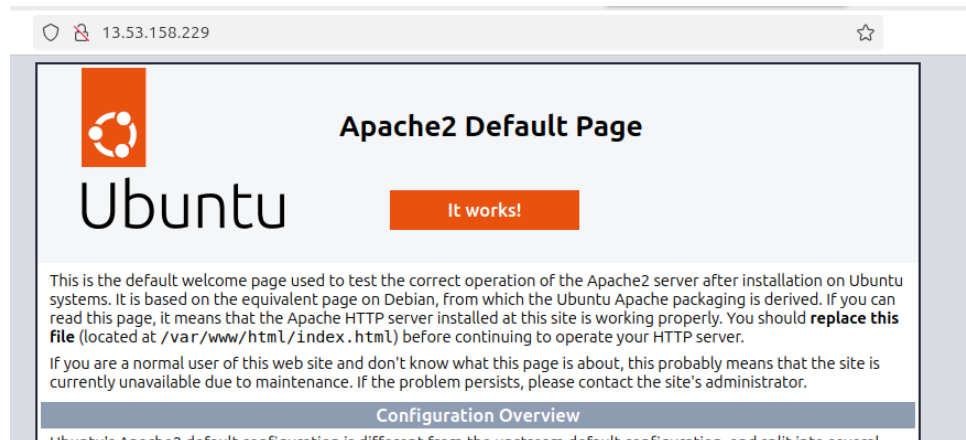
4. Connect to your Instance:
   By using your IP address, connect to your instance and establish an SSH connection.

Connect to instance Info
Connect to your instance i-09de945db7f50909d (fnpperfumes) using any of these options

EC2 Instance Connect | Session Manager | SSH client | EC2 serial console

Instance ID
🗐 i-09de945db7f50909d (fnpperfumes)

Instance ID
🗐 i-09de945db7f50909d (fnpperfumes)

Connection Type
◉ Connect using EC2 Instance Connect
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 or IPv6 address.

○ Connect using EC2 Instance Connect Endpoint
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

◉ Public IPv4 address
🗐 13.53.158.229
○ IPv6 address

Username
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.

🔍 ubuntu ✕

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

Cancel Connect   ← click connect

5. Install Web server and check if it works by using public IP:

```
ubuntu@ip-172-31-32-143:~$ sudo apt install apache2
```

🛡 13.53.158.229 ☆

Apache2 Default Page

Ubuntu   It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several

Apache2 is running successfully.

6. Install Database Server:

```
ubuntu@ip-172-31-32-143:~$ sudo apt install php libapache2-mod-php php-mysql
ubuntu@ip-172-31-32-143:~$ sudo apt install mysql-server
```

7. Change MySQL authentication

```
ubuntu@ip-172-31-32-143:~$ sudo mysql -u root
mysql> ALTER USER 'root'@localhost IDENTIFIED WITH mysql_native_password BY '        ';
```

8. Create User to work on WordPress:

```
mysql> CREATE USER 'wp_user'@localhost IDENTIFIED BY '        ';
```

9. Create a new database for WordPress

```
mysql> CREATE DATABASE wp;
Query OK, 1 row affected (0.01 sec)
```

10. Assign all privileges to the user:

```
mysql> GRANT ALL PRIVILEGES ON wp.* TO 'wp_user'@localhost;
Query OK, 0 rows affected (0.01 sec)
```
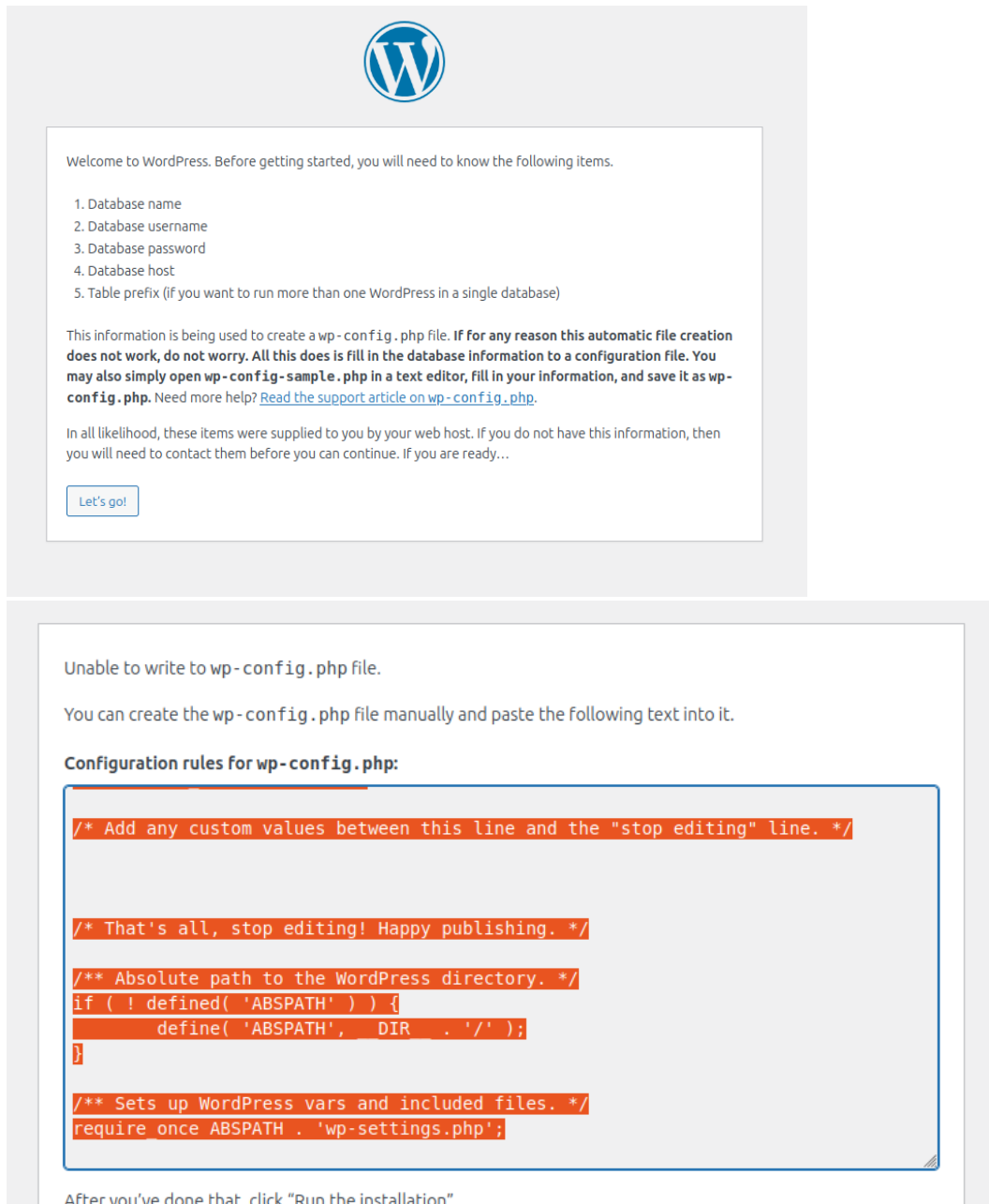
11. Install WordPress and extract file

```
ubuntu@ip-172-31-32-143:/tmp$ curl -O https://wordpress.org/latest.tar.gz
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 25.5M  100 25.5M    0     0  12.8M      0  0:00:01  0:00:01 --:--:-- 12.8M
ubuntu@ip-172-31-32-143:/tmp$ tar xzvf latest.tar.gz
```

12. Copy the extracted file to the Apache web root:

```
ubuntu@ip-172-31-32-143:/tmp$ sudo mv wordpress/ /var/www/html/
ubuntu@ip-172-31-32-143:/tmp$ cd /var/www/html/
ubuntu@ip-172-31-32-143:/var/www/html$ ls
index.html  wordpress
```

13. Open IP with WordPress and Launch WordPress

Welcome to WordPress. Before getting started, you will need to know the following items.

1. Database name
2. Database username
3. Database password
4. Database host
5. Table prefix (if you want to run more than one WordPress in a single database)

This information is being used to create a wp-config.php file. **If for any reason this automatic file creation does not work, do not worry. All this does is fill in the database information to a configuration file. You may also simply open wp-config-sample.php in a text editor, fill in your information, and save it as wp-config.php.** Need more help? Read the support article on wp-config.php.

In all likelihood, these items were supplied to you by your web host. If you do not have this information, then you will need to contact them before you can continue. If you are ready...

Let's go!

Unable to write to wp-config.php file.

You can create the wp-config.php file manually and paste the following text into it.

Configuration rules for wp-config.php:

```
/* Add any custom values between this line and the "stop editing" line. */



/* That's all, stop editing! Happy publishing. */

/** Absolute path to the WordPress directory. */
if ( ! defined( 'ABSPATH' ) ) {
        define( 'ABSPATH', __DIR__ . '/' );
}

/** Sets up WordPress vars and included files. */
require_once ABSPATH . 'wp-settings.php';
```

After you've done that, click "Run the installation".

Upon showing error go to the terminal and change directory to wordpress and copy paste code there

```
ubuntu@ip-172-31-32-143:/var/www/html/wordpress$ nano wp-config.php
```

And then Run Installation

14. Edit file default to directly link wordpress
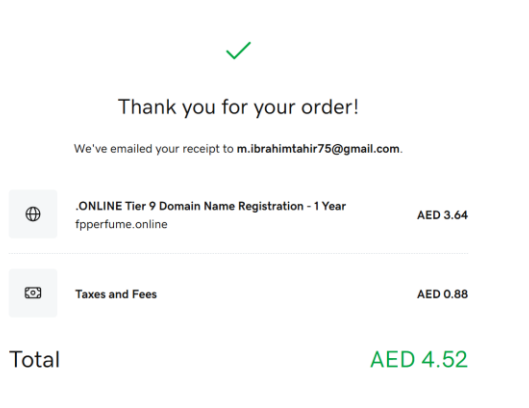
```
ServerAdmin webmaster@localhost
DocumentRoot /var/www/html/wordpress

# Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn
```

Restart Apache

15. Purchase a Domain from Godaddy

✓

Thank you for your order!

We've emailed your receipt to **m.ibrahimtahir75@gmail.com**.

⊕	.ONLINE Tier 9 Domain Name Registration - 1 Year fpperfume.online	AED 3.64
⊡	**Taxes and Fees**	AED 0.88

Total	AED 4.52

16. Go to DNS and add a record to connect your public IP to your domain

New Records

A records use an IP address to connect your domain to a website. They're also used to create subdomains such as www or store, that point to an IP address.

🗑

Type *	Name *	Value *	TTL
A ⌄	@ or www	13.53.158.229	Cust... ⌄
		⊕ Add another value	Seconds
			600

Add More Records   **Save**   Cancel

← save

MUHAMMAD IBRAHIM   6

	Type ⑦	Name ⑦	Data ⑦	TTL ⑦	Delete	Edit
☐	A	@	13.53.15 8.229	600 seconds	🗑	✏

17. Modify the configuration and restart Apache

```
    #LogLevel info ssl:warn

    ServerName fpperfume.online
    ServerAlias www.fpperfume.online
```

```
ubuntu@ip-172-31-32-143:/etc/apache2/sites-available$ sudo nano 000-default.conf
ubuntu@ip-172-31-32-143:/etc/apache2/sites-available$ sudo restart apache2
sudo: restart: command not found
ubuntu@ip-172-31-32-143:/etc/apache2/sites-available$ sudo systemctl restart apache2
```

18. Add SSL certificate to secure the Website

```
[ec2-user@ip-172-31-20-91 html]$ sudo yum install -y mod_ssl
sudo amazon-linux-extras enable epel
sudo yum clean metadata
sudo yum install -y epel-release
sudo yum install -y certbot python3-certbot-apache
```

Untitled-1.jpg