

Project: Deploying a Static Website on AWS EC2 using Apache

Step 1: Login to AWS Management Console

1. Open <https://aws.amazon.com/>
 2. Sign in to AWS Management Console
 3. Select a Region (e.g., ap-south-1 – Mumbai)
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Step 2: Launch an EC2 Instance

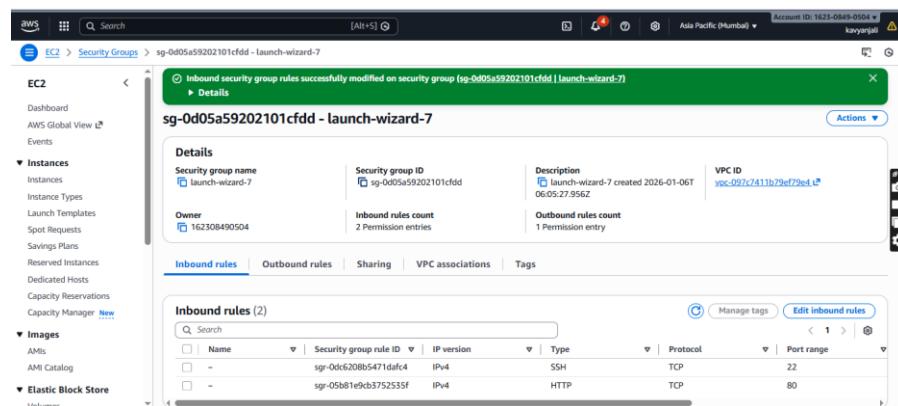
1. Go to Services → EC2
 2. Click Launch Instance
 3. Name the instance: Apache-Web-Server
 4. Amazon Machine Image (AMI):
 - Select Ubuntu Server 22.04 LTS
 5. Instance Type:
 - Choose t2.micro (Free Tier eligible)
-

Step 3: Create or Select Key Pair

1. Under Key pair (login):
 - Click Create new key pair
 - Name: apache-key
 - Type: RSA
 - Format: .pem
 2. Download and save the key securely
-

Step 4: Configure Security Group

1. Create a new Security Group
2. Add inbound rules:
 - SSH | Port 22 | Source: My IP
 - HTTP | Port 80 | Source: Anywhere (0.0.0.0/0)
3. Keep outbound rules as default (Allow all)



Step 5: Launch the Instance

1. Click **Launch Instance**
2. Wait until **Instance state = Running**

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with navigation links like Dashboard, AWS Global View, Events, Instances, Images, and Elastic Block Store. The main content area displays the instance summary for an instance named 'i-00d269d786c608f86 (Apache-web-server)'. Key details shown include:

- Instance ID:** i-00d269d786c608f86
- Public IPv4 address:** 3.6.90.201
- Instance state:** Running
- Private IP DNS name (IPv4 only):** ip-172-31-32-37.ap-south-1.compute.internal
- Instance type:** t3.micro
- VPC ID:** vpc-097c741b79ef79e4
- Subnet ID:** subnet-074ce2587f7228cf1
- Instance ARN:** arn:aws:ec2:ap-south-1:123456789012:instance/i-00d269d786c608f86

On the right side of the instance summary, there are sections for Private IPv4 addresses (172.31.32.37), Public DNS (ec2-3-6-90-201.ap-south-1.compute.amazonaws.com), and Elastic IP addresses. There's also a note about AWS Compute Optimizer finding.

Step 6: Connect to the EC2 Instance

Using EC2 Instance Connect (Browser)

1. Select the instance
2. Click **Connect**
3. Choose **EC2 Instance Connect**
4. Click **Connect**

OR (Using Local Terminal)

```
ssh -i apache-key.pem ubuntu@<Public-IP>
```

Step 7: Update the System

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

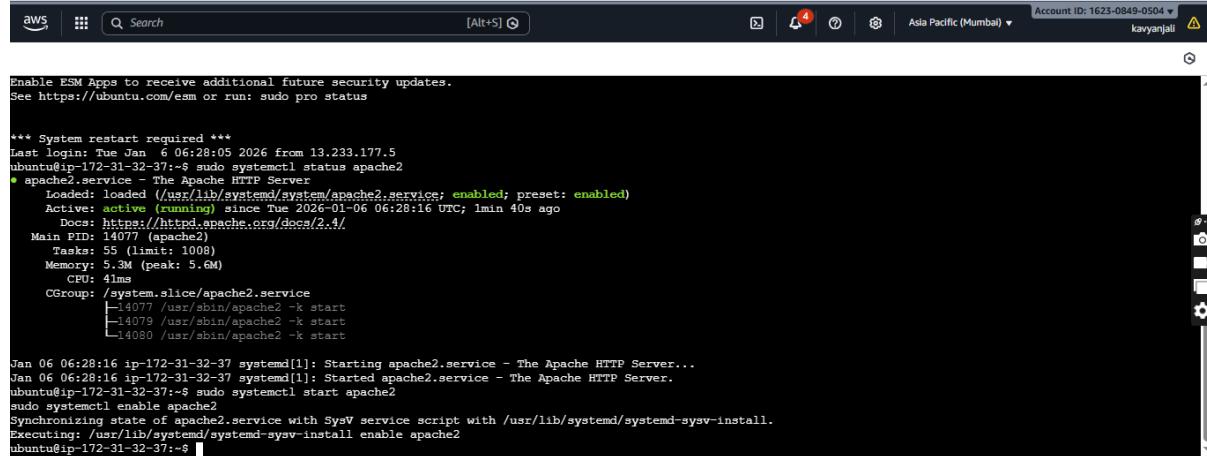
Step 8: Install Apache Web Server

```
sudo apt install apache2 -y
```

Step 9: Start and Enable Apache

```
sudo systemctl start apache2
```

```
sudo systemctl enable apache2
```



```
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

*** System restart required ***
Last login: Tue Jan 6 06:28:05 2026 from 13.233.177.5
ubuntu@ip-172-31-32-37:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
     Active: active (running) since Tue 2026-01-06 06:28:16 UTC; 1min 40s ago
       Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 14077 (apache2)
      Tasks: 55 (limit: 1008)
     Memory: 5.3M (peak: 5.6M)
        CPU: 41ms
      CGroup: /system.slice/apache2.service
          └─14077 /usr/sbin/apache2 -k start
             ├─14079 /usr/sbin/apache2 -k start
             ├─14080 /usr/sbin/apache2 -k start
             └─14080 /usr/sbin/apache2 -k start

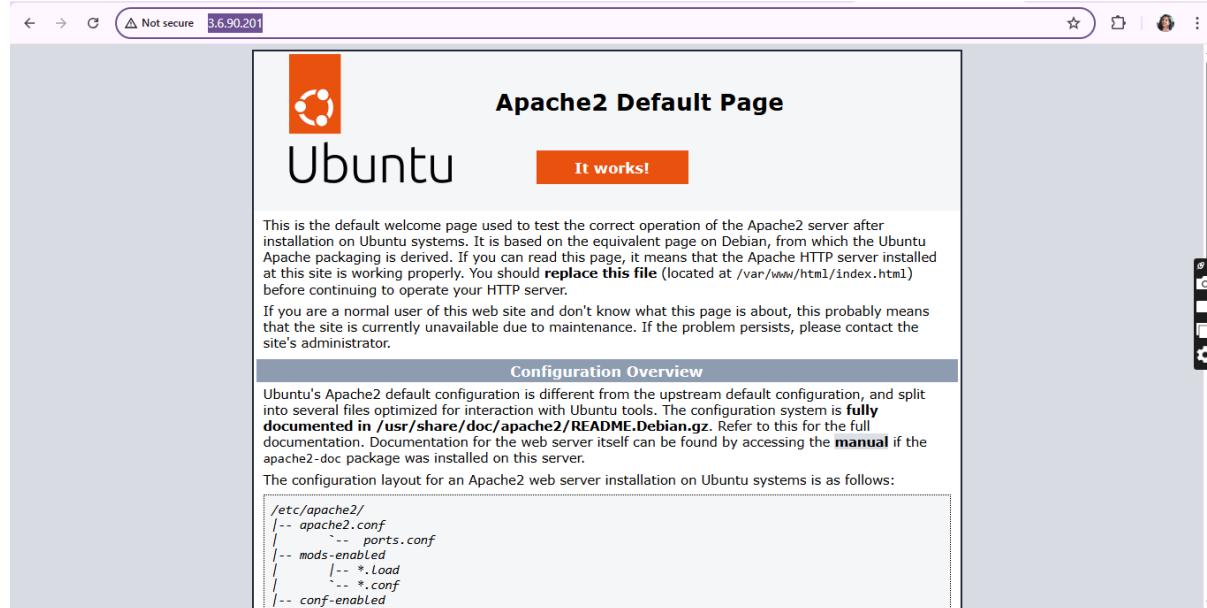
Jan 06 06:28:16 ip-172-31-32-37 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Jan 06 06:28:16 ip-172-31-32-37 systemd[1]: Started apache2.service - The Apache HTTP Server.
ubuntu@ip-172-31-32-37:~$ sudo systemctl start apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
ubuntu@ip-172-31-32-37:~$
```

Step 10: Verify Apache Installation

1. Copy the **Public IPv4 Address**
2. Open a browser
3. Enter:

http://3.6.90.201/

✓ You should see the **Apache2 Ubuntu Default Page**



Step 11: Deploy Static Website

1. Navigate to Apache root directory:

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

2. Edit the default webpage:

```
sudo nano index.html
```

3. Add basic HTML:

```
<!DOCTYPE html>
<html>
<head>
<title>My AWS Apache Website</title>
</head>
<body>
<h1>Apache Web Server Deployed on AWS EC2</h1>
<p>This is a static website hosted on Ubuntu EC2.</p>
</body>
</html>
```

4. Save and exit (CTRL + X → Y → Enter)

Step 12: Set File Permissions

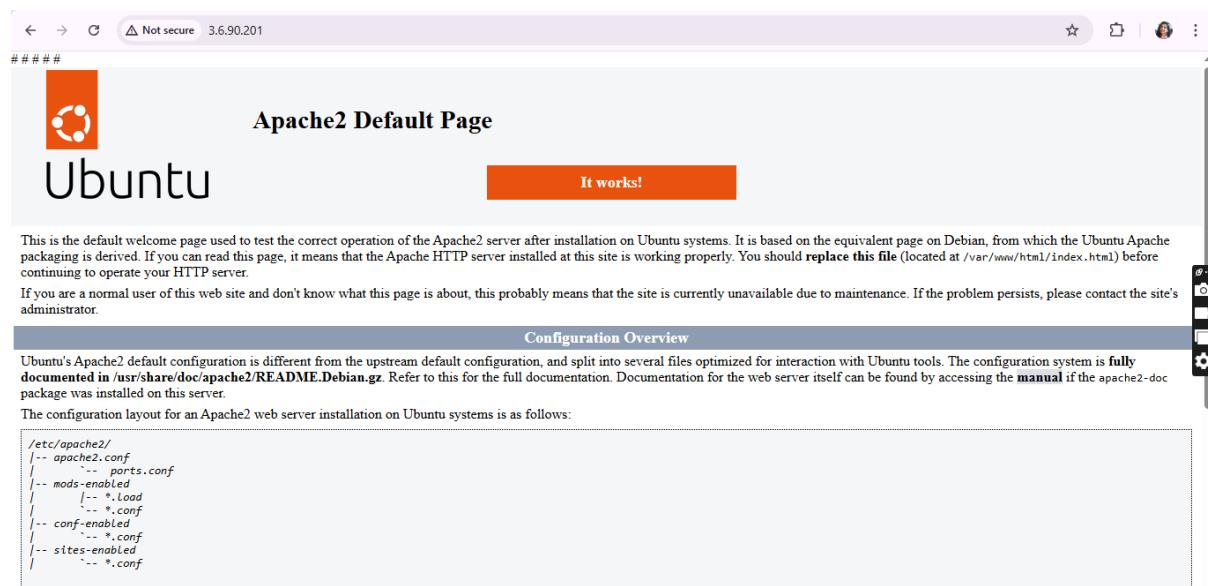
```
sudo chown -R www-data:www-data /var/www/html
sudo chmod -R 755 /var/www/html
```

Step 13: Final Verification

1. Refresh browser:

<http://3.6.90.201/>

✓ Static website should load successfully



Project Outcome

- Successfully launched an Ubuntu EC2 instance
 - Installed and configured Apache web server
 - Allowed HTTP traffic through security groups
 - Hosted a static website accessible from the internet
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