Placement Empowerment Program

Cloud Computing and DevOps Centre

Host a Static Website on a Cloud VMInstall Apache/Nginx on your cloud VM and host a simple HTML website.

aws

Name:Balasubramanian.V

Department : IT

Introduction

Hosting a static website on a cloud virtual machine (VM) provides a scalable and cost-effective solution for deploying simple web pages. AWS offers flexible options for setting up a web server using Apache or Nginx on an EC2 instance. This guide provides step-by-step instructions on configuring an EC2 instance to host a static HTML website using either Apache or Nginx.

Steps to Host a Static Website in AWS

1. Launch an EC2 Instance

Log in to AWS Console:
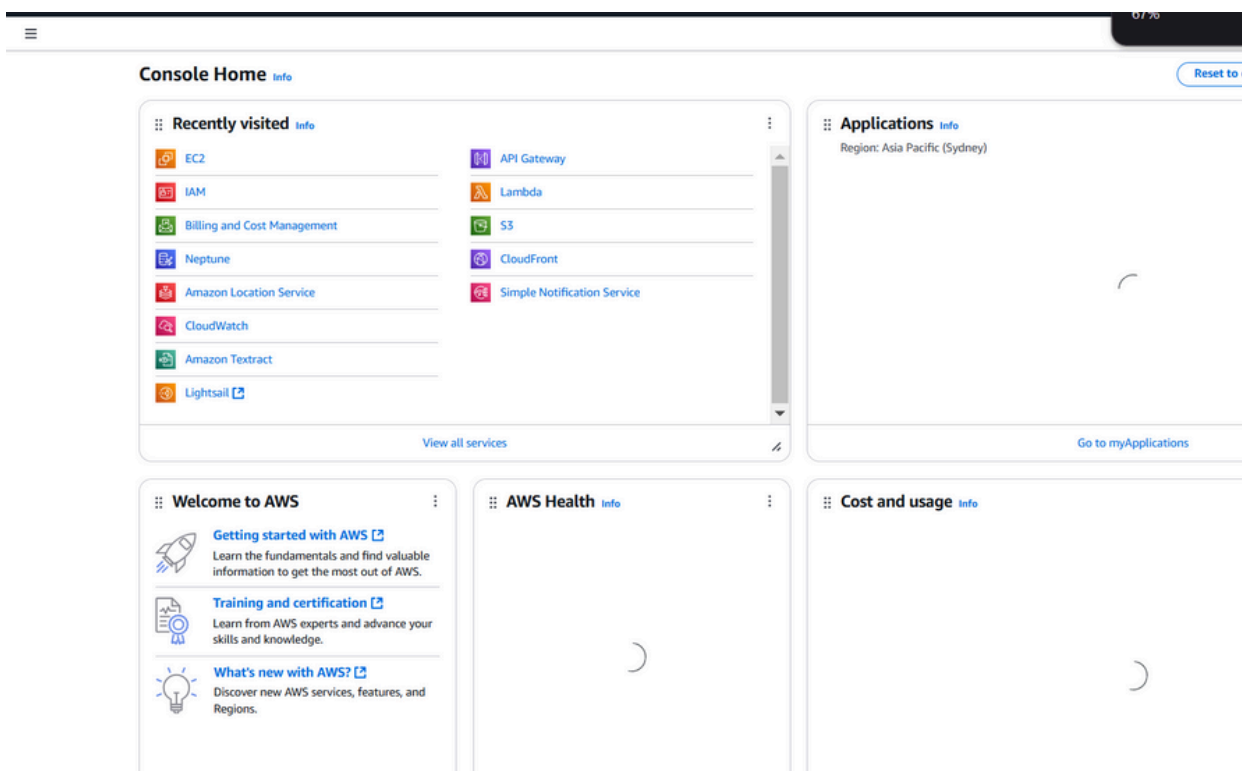
• *Create a New EC2 Instance:*

- *Click on Launch Instance.*
- *Choose an Amazon Machine Image (AMI) (e.g., Amazon Linux, Ubuntu).*
- *Select an appropriate instance type (e.g., t2.micro for free tier users).*
- *Configure instance details and enable HTTP/HTTPS traffic under Security Group settings.*
- *Launch the instance and download the key pair for SSH access.*

https://ap-southeast-2.console.aws.amazon.com

Instances | EC2 | ap-southeast-2

| aws | ⊞ | Q Search | [Alt+S] | ⟩_ | ⏷ | ⑦ | ⚙ | Asia Pacific (Sydney) ▼ | Balasubi |

Dashboard   <

EC2 Global View

Events

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Instances (1/1) Info

Last updated less than a minute ago | ⟳ | (Connect) (Instance state ▼) (Actions ▼)

Launch instances ▼

Q Find Instance by attribute or tag (case-sensitive) | All states ▼ | < 1

☑	Name ✎	▽	Instance ID	Instance state	▽	Instance ty
☑	balainst		i-0f2406bc6a9da48fb	⊘ Running ⊕ ⊖		t2.nano

2. Connect to the Windows Instance and Install Apache

- *Connect to the EC2 Windows Instance:*
- *Open Remote Desktop Connection (RDP) on your local machine.*
- *Use the downloaded key pair to retrieve the Administrator password from the EC2 console.*
- *Enter the public IP of your instance and login with Administrator credentials.*

Install Apache Web Server:

- *Download the latest Apache HTTP Server for Windows from the Apache Lounge.*
- *Extract the Apache files to C:\Apache24 (or your preferred location).*
- *Open Command Prompt as Administrator and navigate to the Apache bin directory:*

```
C:\Users\ASUS> cd C:\Apache24\bin
```

```
PS C:\Apache24\bin> httpd -k install
```

```
PS C:\Apache24\bin> httpd -k start
```

3. Deploy a Static Website

Navigate to Apache Web Directory:

- *Open File Explorer and go to C:\Apache24\htdocs.*
- *Upload HTML Files:*
- *Create an index.html file inside C:\Apache24\htdocs and add the following content:*

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <!DOCTYPE html>
    <html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Apache Hosted Website</title>
        <style>
            body {
                text-align: center;
                background-color: #f0f8ff;
                font-family: Arial, sans-serif;
                padding: 50px;
            }
            h1 {
                color: #ff4500;
                font-size: 50px;
                text-shadow: 2px 2px 5px rgba(0, 0, 0, 0.3);
            }
            p {
                font-size: 24px;
                color: #008000;
                font-weight: bold;
            }
        </style>
    </head>
    <body>
        <h1>BALASUBRAMANIAN.V</h1>
        <p>Hosted a Sample Website using Apache</p>
    </body>
    </html>
```

- *Configure Apache to Serve Your Website:*
- *Open C:\Apache24\conf\httpd.conf using a text editor.*
- *Locate the DocumentRoot directive and ensure it points to C:\Apache24\htdocs.*
- *Restart Apache using:*

```
PS C:\Apache24\bin> httpd -k restart
```

- *4. Configure Security Group and Test Website*
- *Modify Security Group:*
- *Allow inbound HTTP (port 80) and HTTPS (port 443) traffic to access the website.*
- *Test Your Website:*
- *Open a web browser and enter your EC2 instance's public IP address.*
- *If configured correctly, your static website should load successfully.*

Conclusion:

Hosting a static website on an AWS EC2 Windows instance using Apache is a straightforward process. By following these steps, you can deploy a scalable web server in minutes. Regularly update and secure your server to ensure optimal performance and security.