



**Placement Empowerment Program**

***Cloud Computing and DevOps Centre***

# **Hosting a Static Website on a Cloud Virtual Machines**

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## Introduction

Cloud computing has revolutionized how businesses manage IT resources. In this task, we will focus on deploying a virtual machine (VM) in the cloud. This hands-on activity will provide an understanding of cloud platforms, virtual machine provisioning, and secure SSH access.

## Objectives

1. Understand the concept of cloud computing and VMs.
2. Create a free-tier account on a cloud provider (AWS, Azure, or GCP).
3. Launch a Linux virtual machine.
4. Connect to the VM securely using SSH.

### Step 1:

Sign up for **AWS**, **Azure**, or **GCP** and complete the verification process.

Navigate to the respective cloud console and create a new VM instance.

### Step 2:

Navigate to the **EC2 Dashboard**, click "Launch Instance,"

Select an AMI (Amazon Machine Image) like **Ubuntu**, **Windows Server**, or **Amazon Linux**.

aws

Search

[Alt+S]

EC2

Instances

Launch an instance

## Launch an instance

Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

### Name and tags

Info

Name

codesimple

Add additional tags

▼ Application and OS Images (Amazon Machine Image)

Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

aws

macOS

Mac

Ubuntu

ubuntu

Windows

Microsoft

Red Hat

Red Hat

SUSE Linux

SUSE

Debian

debian

>

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

## Step 3:

Configure instance details such as **CPU, RAM, and storage** (e.g., t2.micro in AWS, B1s in Azure, f1-micro in GCP for free-tier eligibility).

aws

Search

[Alt+S]

EC2

Instances

Launch an instance

▼ Instance type

Info | Get advice

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Windows base pricing: 0.0162 USD per Hour

On-Demand Ubuntu Pro base pricing: 0.0134 USD per Hour

On-Demand SUSE base pricing: 0.0116 USD per Hour On-Demand RHEL base pricing: 0.026 USD per Hour

On-Demand Linux base pricing: 0.0116 USD per Hour

Free tier eligible

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

▼ Key pair (login)

Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

codesimple

Create new key pair

▼ Network settings

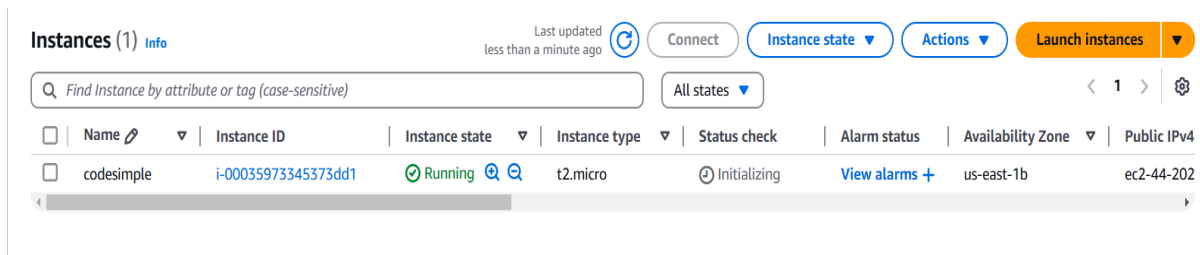
Info

Network

Info

### Step 3:

Click **Launch/Create** and wait for the VM to start



### Step 4:

Open a terminal (Linux/macOS) or **Command Prompt/PowerShell** (Windows).

Use SSH to connect to the VM using the **public IP address**:

```
⇒ ssh -i /path/to/key.pem username@your-vm-public-ip
```



For **AWS (Ubuntu)**, the default username is **ubuntu**; for **Amazon Linux**, it is **ec2-user**.

### Step 5:

**Install Apache or Nginx:**

Update the package list:

```
sudo apt update
```

Install Apache:

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

OR

Install Nginx:

```
sudo apt install nginx -y
```

## Step 6:

If you have a local website folder, use **SCP (Secure Copy Protocol)** to upload files

```
scp index.html <user>@<IP_address>:/var/www/html/
```

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Simple HTML</title>
7
8  </head>
9  <body>
10     <div class="container">
11         <h1>Welcome to My Simple Webpage</h1>
12         <p>This is a basic example of HTML.</p>
13         <button class="btn">Click Me</button>
14     </div>
15 </body>
16 </html>
```

Verify the Website,

```
sudo systemctl restart apache2    or
```

```
sudo systemctl restart nginx
```

## Overview:

Hosting a static website on a cloud VM involves launching a VM on AWS, Azure, or GCP, installing a web server like Apache or Nginx, and configuring network access. After uploading HTML, CSS, and JavaScript files to the server's web directory, the site becomes accessible via the VM's public IP.