

Placement Empowerment Program

Cloud Computing and DevOps Centre

Set Up a Virtual Machine in the Cloud
Create a free-tier AWS account. Launch
a virtual machine and SSH into it.

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Introduction

In this POC, we will learn how to Set up a virtual machine in the cloud is essential for running applications, hosting websites, or learning cloud computing. AWS (Amazon Web Services) provides a **Free Tier**, allowing users to launch and use an EC2 (Elastic Compute Cloud) instance at no cost for the first 12 months. This project will guide you through **creating an AWS account, launching a virtual machine (EC2 instance), and connecting to it via SSH.**

Step-by-Step Overview

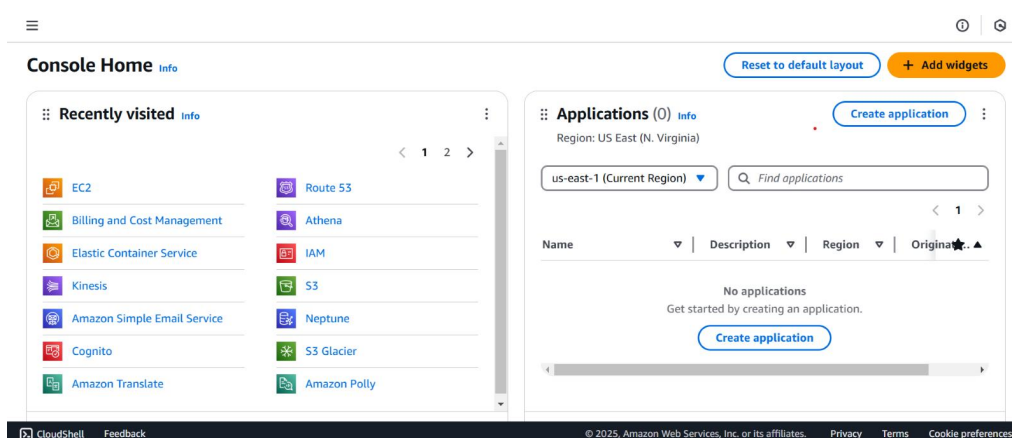
Step1:

Create an AWS Free Tier Account

Go to [AWS Free Tier](#).

Click "Create an AWS Account".

Log in to the AWS Management Console.



Step 2

launch an EC2 Instance (Virtual Machine)

Open the EC2 Dashboard:

In AWS Console, search for **EC2** and open the **EC2 Dashboard**.

Click **"Launch Instance"**.

Configure the EC2 Instance:

Name: Choose a name (e.g., "MyEC2Instance").

Amazon Machine Image (AMI): Select **Amazon Linux 2023** or **Ubuntu 22.04** (both are Free Tier eligible).

Instance Type: Choose **t2.micro** (1 vCPU, 1GB RAM - Free Tier eligible).

Key Pair:

Click **Create new key pair**.

Name it (e.g., "my-key").

Select **.pem format** and **Download Key Pair** (store it securely).

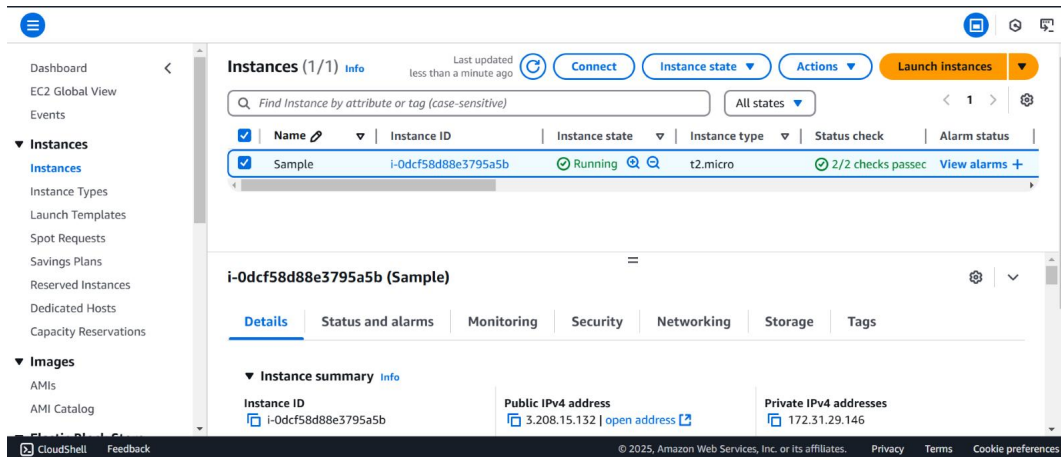
Security Group:

Allow **SSH (port 22)**.

Restrict access to **Your IP** for security.

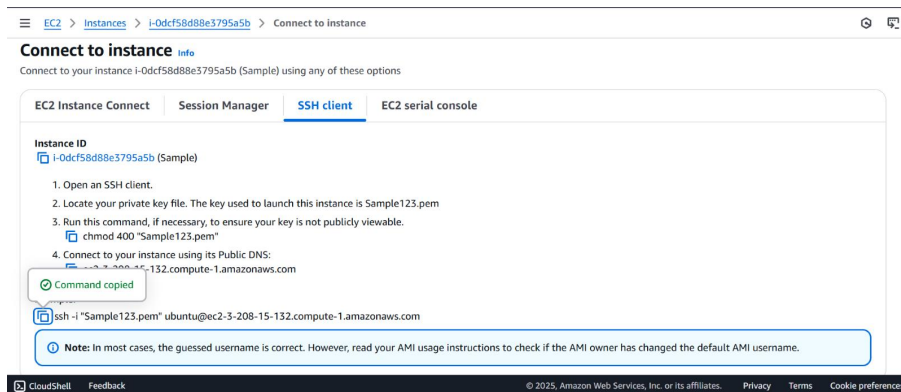
Storage: Keep default (8GB SSD).

Click **Launch Instance** and wait for initialization.



Step 3

Connect to the EC2 Instance via SSH



Step 4

Verify Connection & Manage Instance

```
The authenticity of host 'ec2-3-208-15-132.compute-1.amazonaws.com (3.208.15.132)' can't be established.
ED25519 key fingerprint is SHA256:TaDbdW+uAOY5xLYHJny+Kc04T260gjtF4zjJHOR0siw.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-208-15-132.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Wed Jan 29 03:54:43 UTC 2025

System load:  0.22      Processes:    105
Usage of /:   24.9% of 6.71GB   Users logged in: 0
Memory usage: 20%          IPv4 address for enX0: 172.31.29.146
Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

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

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
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