How to start a free VM in your cloud account

To start a free virtual machine (VM) in Google Cloud Platform (GCP), you can take advantage of the Google Cloud Free Tier. The Free Tier provides certain resources for free, which includes the ability to run a small VM instance. Here's a step-by-step guide to help you set up your free VM in GCP:

1. Create a Google Cloud Account

- If you don't already have a Google Cloud account, sign up at [cloud.google.com](https://cloud.google.com/).

- New users typically receive $300 in free credits for 90 days, which can be used to try out various Google Cloud services.

2. Access the Google Cloud Console

- Once your account is set up, go to the [Google Cloud Console](https://console.cloud.google.com/).

- Ensure that billing is enabled for your Google Cloud account to access all services.

3. set Up a New Project

- In the Cloud Console, go to the "Project" dropdown at the top of the page and select "New Project."

- Name your project and click "Create."

4. Enable the Compute Engine API

- Navigate to the "APIs & Services" section in the Cloud Console.

- Search for "Compute Engine API" and enable it. This is required to create and manage VMs.

5. Create a Virtual Machine Instance

- Go to the "Compute Engine" section on the left sidebar and select "VM instances."

- Click "Create Instance."

6. Configure Your Free VM Instance

-Name: Provide a name for your VM instance.

- Region and Zone: Choose a region and zone where your VM will be deployed. Select a zone that offers free usage within the Free Tier, such as `us-west1` (Oregon).

- Machine Configuration:

- Choose a machine family (e.g., `E2`) and series.

- Select the `e2-micro` instance, which is covered under the Free Tier.

- Boot Disk: Select an operating system (OS) for your VM. The Free Tier includes 30 GB per month of free HDD space. The default options like Debian, Ubuntu, or CentOS work well.

- Firewall : Allow HTTP and HTTPS traffic if you plan to use your VM for web applications.

7. Start the VM

- Review your configurations and click "Create" to start your VM.

- Your VM instance will start running, and you can access it via SSH directly from the browser by clicking the "SSH" button next to your instance.

8. Monitor Usage

- Keep an eye on your resource usage to ensure you stay within the Free Tier limits. Google Cloud provides usage data in the "Billing" section of the console.

9. Stopping/Terminating the VM

- If you don't need the VM to run continuously, consider stopping or terminating it to avoid unnecessary charges.

- Go to the "VM instances" section, select your instance, and choose "Stop" or "Delete".