Lab: Google Cloud Fundamentals: Getting Started with Cloud Marketplace

Overview

This lab guides you through deploying a LAMP stack on a Compute Engine instance using Google Cloud Marketplace. The Bitnami LAMP Stack includes Linux, Apache HTTP Server, MySQL, PHP, and phpMyAdmin, providing a complete web development environment for Linux.

Objectives

Learn how to launch a solution using Cloud Marketplace.

Task 1: Explore the default network

1. Navigate to the VPC networks section in the Cloud Console.
2. Click on "VPC network" > "VPC networks".
3. Click on the "default" network.
4. Navigate to Subnets and notice the default network with its subnets.
5. Navigate to Routes and select "default" under Network. Choose your assigned Lab Region and click "View" to see the routes associated with the default network.
6. Review the default firewall rules listed under Firewall.
7. Delete all default network firewall rules.
    - Select all listed firewall rules.
    - Click "Delete".
    - Confirm the deletion.
8. Delete the default network.
    - Click on "VPC network" > "VPC networks".
    - Select the default network.
    - Click "Delete VPC network".
    - Confirm the deletion.
9. Verify the absence of routes and firewall rules after the deletion.
    - Navigate to "Routes" and "Firewall" respectively.
10. Attempt to create a VM instance and observe the error indicating the absence of a VPC network.

Task 2: Create a VPC network and VM instances

1. Create a new auto mode VPC network named "mynetwork."
    - Click on "VPC network" > "VPC networks".
    - Click "Create VPC network".
    - Name the network "mynetwork".
    - Choose "Automatic" for Subnet creation mode.
    - Select all available firewall rules.
    - Click "Create".
2. Ensure that subnets are automatically created for each region.
3. Create two VM instances: one in Region 1 and one in Region 2.
    - Click on "Compute Engine" > "VM instances".

- Click "Create instance".
- Specify instance details for each VM as per instructions.

Task 3: Explore the connectivity for VM instances

1. Verify connectivity by SSHing into one of the VM instances.
    - Click on "Compute Engine" > "VM instances".
    - Click "SSH" next to the desired VM instance.
2. Test connectivity by pinging the internal and external IP addresses of both VM instances.
    - Use terminal commands to ping internal and external IP addresses.
3. Remove the allow-icmp firewall rule and observe the effects on pinging the external IP address of one of the VM instances.
    - Navigate to "VPC network" > "Firewall".
    - Select the rule "mynetwork-allow-icmp".
    - Click "Delete".
    - Confirm the deletion.
    - Test pinging again and observe the results.
4. Remove the allow-custom firewall rule and observe the effects on pinging the internal IP address of one of the VM instances.
    - Repeat the process for the "mynetwork-allow-custom" rule.
5. Remove the allow-ssh firewall rule and attempt to SSH into one of the VM instances.
    - Repeat the process for the "mynetwork-allow-ssh" rule.
    - Attempt SSH into one of the VM instances and note the outcome.

Congratulations! You have successfully completed this lab.