

I recently joined the Cymbal Bank security team as a junior cloud security analyst. As part of the security team, I'm responsible for ensuring that virtual machines (VMs) are correctly configured and deployed using IaC. IaC introduces automation, ensuring that the VMs are consistent across Cymbal Bank's hybrid cloud infrastructure. IaC can also automate security checks from the beginning of the development process. My awareness of how security risks can translate to the retail industry is an incredible asset to my team. For example, I know that configuration and invalid code inputs could cause serious security implications. With Cymbal Bank's global presence online, along with its 170 physical stores, the security of the VMs are extremely important. I've received a request to provision infrastructure to help with Cymbal Bank's hybrid cloud migration efforts. I've been asked to create server instances, also called virtual machines (VMs), and to install some software based on the standard Terraform installation template. The Terraform file creates a network with a Google Compute Engine instance. Once Terraform processes this file, it will create the infrastructure. My task is to review the Terraform file before deploying it. I'll need to determine the file's resources and what these resources create. I'll also need to identify how to update the location of the VMs since the VMs will be launching globally.

```
resource "google_compute_network" "vpc_network" {
  name                = "my-custom-mode-network"
  auto_create_subnetworks = false
  mtu                  = 1460
}

resource "google_compute_subnetwork" "default" {
  name          = "my-custom-subnet"
  ip_cidr_range = "10.0.1.0/24"
  region        = "us-west1"
  network       = google_compute_network.vpc_network.id
}

# Create a single Compute Engine instance
resource "google_compute_instance" "default" {
  name          = "flask-vm"
  machine_type  = "f1-micro"
  zone          = "us-west1-a"
  tags           = ["ssh"]

  boot_disk {
    initialize_params {
      image = "debian-cloud/debian-11"
    }
  }

  # Install Flask
  metadata_startup_script = "sudo apt-get update; sudo apt-get
install -yq build-essential python3-pip rsync; pip install flask"

  network_interface {
    subnetwork = google_compute_subnetwork.default.id

    access_config {
      # Include this section to give the VM an external IP address
    }
  }
}
```

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