Laboratorio IaC

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URL del repositorio:
https://github.com/k26duran/TerraformLab

La siguiente imagen corresponde al servicio desplegado desde la consola de Azure mediante conexión ssh a la máquina virtual:

El siguiente texto corresponde al contenido del archivo terraform.tfstate:

```
{
 "version": 4,
 "terraform_version": "0.12.9",
 "serial": 11,
 "lineage": "73cab30f-572e-f558-9237-457b8758d623",
 "outputs": {
  "vmss_public_ip": {
   "value": "rtdvwg.eastus.cloudapp.azure.com",
   "type": "string"
  }
 },
 "resources": [
  {
   "mode": "managed",
   "type": "azurerm_lb",
   "name": "vmss",
   "provider": "provider.azurerm",
   "instances": [
    {
     "schema_version": 0,
     "attributes": {
      "frontend_ip_configuration": [
       {
        "inbound_nat_rules": [],
        "load_balancer_rules": [],
        "name": "PublicIPAddress",
        "outbound_rules": [],
        "private_ip_address": "",
```

          "private_ip_address_allocation": "Dynamic",
          "public_ip_address_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/publicIPAddresses/vmss-public-ip",
          "public_ip_prefix_id": "",
          "subnet_id": "",
          "zones": null
        }
      ],
      "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb",
      "location": "eastus",
      "name": "vmss-lb",
      "private_ip_address": "",
      "private_ip_addresses": [],
      "resource_group_name": "ConuTerraformLab",
      "sku": "Basic",
      "tags": {
        "environment": "codelab"
      }
    },
    "private": "bnVsbA==",
    "depends_on": [
      "azurerm_public_ip.vmss",
      "azurerm_resource_group.vmss"
    ]
  }
    ]
  },
  {
    "mode": "managed",
    "type": "azurerm_lb_backend_address_pool",
    "name": "bpepool",
    "provider": "provider.azurerm",
    "instances": [
    {
      "schema_version": 0,
      "attributes": {
        "backend_ip_configurations": [],
        "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/backendAddressPools/BackEndAddressPool",
        "load_balancing_rules": [],
        "loadbalancer_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb",
        "location": null,
        "name": "BackEndAddressPool",
        "resource_group_name": "ConuTerraformLab"
      },
      "private": "bnVsbA==",
      "depends_on": [
        "azurerm_lb.vmss",
        "azurerm_resource_group.vmss"
      ]
    }
    ]
  },
  {
    "mode": "managed",
    "type": "azurerm_lb_probe",
    "name": "vmss",
    "provider": "provider.azurerm",
    "instances": [
    {
      "schema_version": 0,
      "attributes": {
        "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/probes/ssh-running-probe",
        "interval_in_seconds": 15,
        "load_balancer_rules": [],
        "loadbalancer_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb",

          "location": null,
          "name": "ssh-running-probe",
          "number_of_probes": 2,
          "port": 80,
          "protocol": "Tcp",
          "request_path": "",
          "resource_group_name": "ConuTerraformLab"
        },
        "private": "bnVsbA==",
        "depends_on": [
          "azurerm_lb.vmss",
          "azurerm_resource_group.vmss"
        ]
      }
    ]
  },
  {
    "mode": "managed",
    "type": "azurerm_lb_rule",
    "name": "lbnatrule",
    "provider": "provider.azurerm",
    "instances": [
      {
        "schema_version": 0,
        "attributes": {
          "backend_address_pool_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/backendAddressPools/BackEndAddressPool",
          "backend_port": 80,
          "disable_outbound_snat": false,
          "enable_floating_ip": false,
          "frontend_ip_configuration_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/frontendIPConfigurations/PublicIPAddress",
          "frontend_ip_configuration_name": "PublicIPAddress",
          "frontend_port": 80,
          "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/loadBalancingRules/http",
          "idle_timeout_in_minutes": 4,
          "load_distribution": "Default",
          "loadbalancer_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb",
          "location": null,
          "name": "http",
          "probe_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/probes/ssh-running-probe",
          "protocol": "Tcp",
          "resource_group_name": "ConuTerraformLab"
        },
        "private": "bnVsbA==",
        "depends_on": [
          "azurerm_lb.vmss",
          "azurerm_lb_backend_address_pool.bpepool",
          "azurerm_lb_probe.vmss",
          "azurerm_resource_group.vmss"
        ]
      }
    ]
  },
  {
    "mode": "managed",
    "type": "azurerm_public_ip",
    "name": "vmss",
    "provider": "provider.azurerm",
    "instances": [
      {
        "schema_version": 0,
        "attributes": {
          "allocation_method": "Static",
          "domain_name_label": "rtdvwg",
          "fqdn": "rtdvwg.eastus.cloudapp.azure.com",

        "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/publicIPAddresses/vmss-public-ip",
        "idle_timeout_in_minutes": 4,
        "ip_address": "52.170.149.114",
        "ip_version": "IPv4",
        "location": "eastus",
        "name": "vmss-public-ip",
        "public_ip_address_allocation": "Static",
        "public_ip_prefix_id": null,
        "resource_group_name": "ConuTerraformLab",
        "reverse_fqdn": "",
        "sku": "Basic",
        "tags": {
          "environment": "codelab"
        },
        "zones": null
      },
      "private": "bnVsbA==",
      "depends_on": [
        "azurerm_resource_group.vmss",
        "random_string.fqdn"
      ]
    }
  ]
},
{
  "mode": "managed",
  "type": "azurerm_resource_group",
  "name": "vmss",
  "provider": "provider.azurerm",
  "instances": [
    {
      "schema_version": 0,
      "attributes": {
        "id": "/subscriptions/5bce270c-15c2-4be1-82a2-675ffef48d33/resourceGroups/ConuTerraformLab",
        "location": "eastus",
        "name": "ConuTerraformLab",
        "tags": {
          "environment": "codelab"
        }
      },
      "private": "bnVsbA=="
    }
  ]
},
{
  "mode": "managed",
  "type": "azurerm_subnet",
  "name": "vmss",
  "provider": "provider.azurerm",
  "instances": [
    {
      "schema_version": 0,
      "attributes": {
        "address_prefix": "10.0.2.0/24",
        "delegation": [],
        "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/virtualNetworks/vmss-vnet/subnets/vmss-subnet",
        "ip_configurations": [],
        "name": "vmss-subnet",
        "network_security_group_id": "",
        "resource_group_name": "ConuTerraformLab",
        "route_table_id": "",
        "service_endpoints": null,
        "virtual_network_name": "vmss-vnet"
      },
      "private": "bnVsbA==",
      "depends_on": [
        "azurerm_resource_group.vmss",
        "azurerm_virtual_network.vmss"

```
          ]
        }
      ]
    },
    {
      "mode": "managed",
      "type": "azurerm_virtual_machine_scale_set",
      "name": "vmss",
      "provider": "provider.azurerm",
      "instances": [
        {
          "schema_version": 1,
          "attributes": {
            "automatic_os_upgrade": false,
            "boot_diagnostics": [],
            "eviction_policy": "",
            "extension": [],
            "health_probe_id": null,
            "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Compute/virtualMachineScaleSets/vmscaleset",
            "identity": [],
            "license_type": "",
            "location": "eastus",
            "name": "vmscaleset",
            "network_profile": [
              {
                "accelerated_networking": false,
                "dns_settings": [
                  {
                    "dns_servers": []
                  }
                ],
                "ip_configuration": [
                  {
                    "application_gateway_backend_address_pool_ids": [],
                    "application_security_group_ids": [],
                    "load_balancer_backend_address_pool_ids": [
                      "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/backendAddressPools/BackEndAddressPool"
                    ],
                    "load_balancer_inbound_nat_rules_ids": [],
                    "name": "IPConfiguration",
                    "primary": true,
                    "public_ip_address_configuration": [],
                    "subnet_id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/virtualNetworks/vmss-vnet/subnets/vmss-subnet"
                  }
                ],
                "ip_forwarding": false,
                "name": "terraformnetworkprofile",
                "network_security_group_id": "",
                "primary": true
              }
            ],
            "os_profile": [
              {
                "admin_password": "Conu2019Lab*",
                "admin_username": "azureuser",
                "computer_name_prefix": "vmlab",
                "custom_data": "I2Nsb3VkLWNvbmZpZwpwYWNrYWdlczoKLSBuZ2lueAo="
              }
            ],
            "os_profile_linux_config": [
              {
                "disable_password_authentication": false,
                "ssh_keys": []
              }
            ],
            "os_profile_secrets": [],
            "os_profile_windows_config": [],
```

```json
          "overprovision": true,
          "plan": [],
          "priority": "",
          "proximity_placement_group_id": null,
          "resource_group_name": "ConuTerraformLab",
          "rolling_upgrade_policy": [],
          "single_placement_group": true,
          "sku": [
            {
              "capacity": 2,
              "name": "Standard_DS1_v2",
              "tier": "Standard"
            }
          ],
          "storage_profile_data_disk": [
            {
              "caching": "ReadWrite",
              "create_option": "Empty",
              "disk_size_gb": 10,
              "lun": 0,
              "managed_disk_type": "Standard_LRS"
            }
          ],
          "storage_profile_image_reference": [
            {
              "id": "",
              "offer": "UbuntuServer",
              "publisher": "Canonical",
              "sku": "16.04-LTS",
              "version": "latest"
            }
          ],
          "storage_profile_os_disk": [
            {
              "caching": "ReadWrite",
              "create_option": "FromImage",
              "image": "",
              "managed_disk_type": "Standard_LRS",
              "name": "",
              "os_type": "",
              "vhd_containers": []
            }
          ],
          "tags": {
            "environment": "codelab"
          },
          "upgrade_policy_mode": "Manual",
          "zones": null
        },
        "private": "eyJzY2hlbWFfdmVyc2lvbiI6IjEifQ==",
        "depends_on": [
          "azurerm_lb_backend_address_pool.bpepool",
          "azurerm_resource_group.vmss",
          "azurerm_subnet.vmss"
        ]
      }
    ]
  },
  {
    "mode": "managed",
    "type": "azurerm_virtual_network",
    "name": "vmss",
    "provider": "provider.azurerm",
    "instances": [
      {
        "schema_version": 0,
        "attributes": {
          "address_space": [
            "10.0.0.0/16"
          ],
```

```json
        "ddos_protection_plan": [],
        "dns_servers": null,
        "id": "/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/virtualNetworks/vmss-vnet",
        "location": "eastus",
        "name": "vmss-vnet",
        "resource_group_name": "ConuTerraformLab",
        "subnet": [],
        "tags": {
          "environment": "codelab"
        }
      },
      "private": "bnVsbA==",
      "depends_on": [
        "azurerm_resource_group.vmss"
      ]
    }
  ]
},
{
  "mode": "managed",
  "type": "random_string",
  "name": "fqdn",
  "provider": "provider.random",
  "instances": [
    {
      "schema_version": 1,
      "attributes": {
        "id": "rtdvwg",
        "keepers": null,
        "length": 6,
        "lower": true,
        "min_lower": 0,
        "min_numeric": 0,
        "min_special": 0,
        "min_upper": 0,
        "number": false,
        "override_special": null,
        "result": "rtdvwg",
        "special": false,
        "upper": false
      },
      "private": "eyJzY2hlbWFfdmVyc2lvbiI6IjEifQ=="
    }
  ]
}
]
}
```

En la siguiente imagen vemos que todos los scripts fueron ejecutados de manera exitosa, y por tanto el despliegue se realizo correctamente.
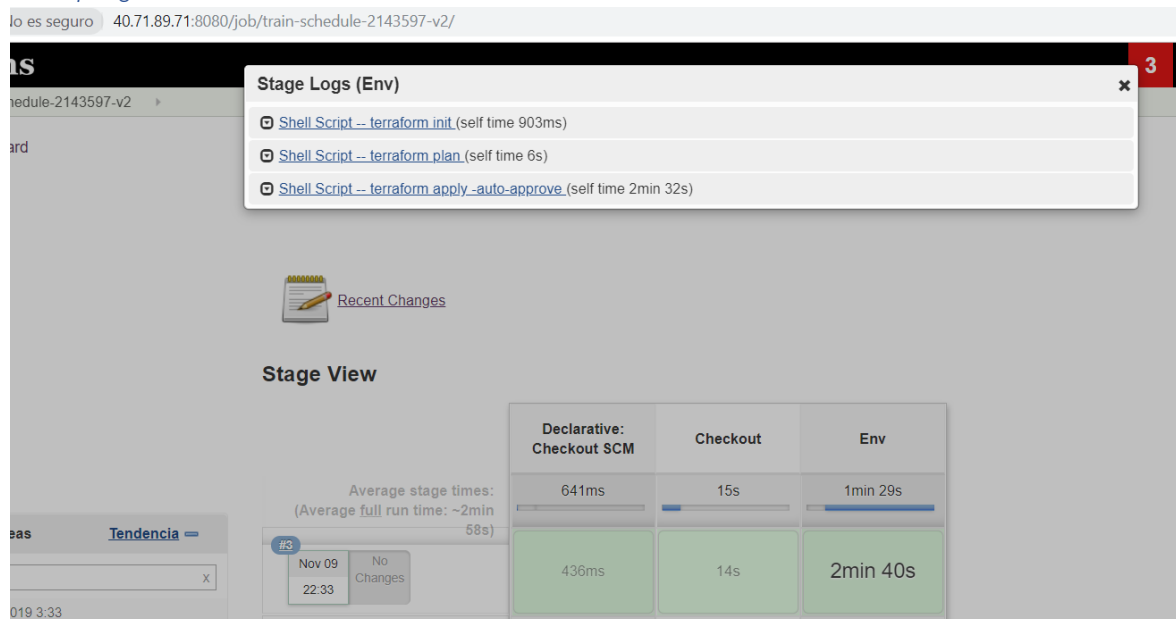
Este es todo el output de la consola:

```
Replayed #2
Running in Durability level: MAX_SURVIVABILITY
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/train-schedule-2143597-v2
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
No credentials specified
 > git rev-parse --is-inside-work-tree # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/k26duran/TerraformLab # timeout=10
Fetching upstream changes from https://github.com/k26duran/TerraformLab
 > git --version # timeout=10
 > git fetch --tags --force --progress -- https://github.com/k26duran/TerraformLab +refs/heads/*:refs/remotes/origin/*
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
 > git rev-parse refs/remotes/origin/origin/master^{commit} # timeout=10
Checking out Revision c4c0f16781a7bc0569d08ade9155224fbd54b461 (refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f c4c0f16781a7bc0569d08ade9155224fbd54b461
Commit message: "Rename JenkinsConf to Jenkinsfile"
 > git rev-list --no-walk c4c0f16781a7bc0569d08ade9155224fbd54b461 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Checkout)
[Pipeline] checkout
No credentials specified
 > git rev-parse --is-inside-work-tree # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/k26duran/TerraformLab # timeout=10
Fetching upstream changes from https://github.com/k26duran/TerraformLab
 > git --version # timeout=10
 > git fetch --tags --force --progress -- https://github.com/k26duran/TerraformLab +refs/heads/*:refs/remotes/origin/*
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
 > git rev-parse refs/remotes/origin/origin/master^{commit} # timeout=10
Checking out Revision c4c0f16781a7bc0569d08ade9155224fbd54b461 (refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f c4c0f16781a7bc0569d08ade9155224fbd54b461
Commit message: "Rename JenkinsConf to Jenkinsfile"
[Pipeline] dir
Running in /var/lib/jenkins/workspace/train-schedule-2143597-v2/ResourceGroup
[Pipeline] {
[Pipeline] sh
+ terraform init

 [0m [1mInitializing the backend... [0m
```

```
  [0m [1mInitializing provider plugins... [0m

The following providers do not have any version constraints in configuration,
so the latest version was installed.

To prevent automatic upgrades to new major versions that may contain breaking
changes, it is recommended to add version = "..." constraints to the
corresponding provider blocks in configuration, with the constraint strings
suggested below.

* provider.azurerm: version = "~> 1.36"

  [0m [1m [32mTerraform has been successfully initialized! [0m [32m [0m
  [0m [32m
You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary. [0m
[Pipeline] sh
+ terraform plan
  [0m [1mRefreshing Terraform state in-memory prior to plan... [0m
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.
  [0m
  [0m [1mazurerm_resource_group.rg: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab] [0m


------------------------------------------------------------------------

  [0m [1m [32mNo changes. Infrastructure is up-to-date. [0m [32m

This means that Terraform did not detect any differences between your
configuration and real physical resources that exist. As a result, no
actions need to be performed. [0m
[Pipeline] sh
+ terraform apply -auto-approve
  [0m [1mazurerm_resource_group.rg: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab] [0m
  [0m [1m [32m
Apply complete! Resources: 0 added, 0 changed, 0 destroyed. [0m
[Pipeline] }
[Pipeline] // dir
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Env)
[Pipeline] dir
Running in /var/lib/jenkins/workspace/train-schedule-2143597-v2/TerraformLAB
[Pipeline] {
[Pipeline] sh
+ terraform init

  [0m [1mInitializing the backend... [0m

  [0m [1mInitializing provider plugins... [0m

The following providers do not have any version constraints in configuration,
so the latest version was installed.

To prevent automatic upgrades to new major versions that may contain breaking
changes, it is recommended to add version = "..." constraints to the
corresponding provider blocks in configuration, with the constraint strings
suggested below.

* provider.azurerm: version = "~> 1.36"
* provider.random: version = "~> 2.2"

  [0m [1m [32mTerraform has been successfully initialized! [0m [32m [0m
  [0m [32m
You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary. [0m
[Pipeline] sh
+ terraform plan
  [0m [1mRefreshing Terraform state in-memory prior to plan... [0m
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.
  [0m
  [0m [1mrandom_string.fqdn: Refreshing state... [id=ljwglq] [0m
  [0m [1mazurerm_resource_group.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab] [0m
  [0m [1mazurerm_public_ip.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/publicIPAddresses/vmss-public-ip] [0m
  [0m [1mazurerm_lb.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb] [0m
  [0m [1mazurerm_lb_backend_address_pool.bpepool: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-
lb/backendAddressPools/BackEndAddressPool] [0m
```

```
    azurerm_lb_probe.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/probes/ssh-running-
probe]
    azurerm_lb_rule.lbnatrule: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-
lb/loadBalancingRules/http]

------------------------------------------------------------------------

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
    + create

Terraform will perform the following actions:

  # azurerm_lb.vmss will be created
  + resource "azurerm_lb" "vmss" {
      + id                   = (known after apply)
      + location             = "eastus"
      + name                 = "vmss-lb"
      + private_ip_address   = (known after apply)
      + private_ip_addresses = (known after apply)
      + resource_group_name  = "ConuTerraformLab"
      + sku                  = "Basic"
      + tags                 = {
          + "environment" = "codelab"
        }

      + frontend_ip_configuration {
          + inbound_nat_rules             = (known after apply)
          + load_balancer_rules           = (known after apply)
          + name                          = "PublicIPAddress"
          + outbound_rules                = (known after apply)
          + private_ip_address            = (known after apply)
          + private_ip_address_allocation = (known after apply)
          + public_ip_address_id          = (known after apply)
          + public_ip_prefix_id           = (known after apply)
          + subnet_id                     = (known after apply)
        }
    }

  # azurerm_lb_backend_address_pool.bpepool will be created
  + resource "azurerm_lb_backend_address_pool" "bpepool" {
      + backend_ip_configurations = (known after apply)
      + id                        = (known after apply)
      + load_balancing_rules      = (known after apply)
      + loadbalancer_id           = (known after apply)
      + name                      = "BackEndAddressPool"
      + resource_group_name       = "ConuTerraformLab"
    }

  # azurerm_lb_probe.vmss will be created
  + resource "azurerm_lb_probe" "vmss" {
      + id                  = (known after apply)
      + interval_in_seconds = 15
      + load_balancer_rules = (known after apply)
      + loadbalancer_id     = (known after apply)
      + name                = "ssh-running-probe"
      + number_of_probes    = 2
      + port                = 80
      + protocol            = (known after apply)
      + resource_group_name = "ConuTerraformLab"
    }

  # azurerm_lb_rule.lbnatrule will be created
  + resource "azurerm_lb_rule" "lbnatrule" {
      + backend_address_pool_id        = (known after apply)
      + backend_port                   = 80
      + disable_outbound_snat          = false
      + enable_floating_ip             = false
      + frontend_ip_configuration_id   = (known after apply)
      + frontend_ip_configuration_name = "PublicIPAddress"
      + frontend_port                  = 80
      + id                             = (known after apply)
      + idle_timeout_in_minutes        = (known after apply)
      + load_distribution              = (known after apply)
      + loadbalancer_id                = (known after apply)
      + name                           = "http"
      + probe_id                       = (known after apply)
      + protocol                       = "tcp"
      + resource_group_name            = "ConuTerraformLab"
    }

  # azurerm_public_ip.vmss will be created
  + resource "azurerm_public_ip" "vmss" {
      + allocation_method       = "Static"
      + domain_name_label       = "ljwglq"
      + fqdn                    = (known after apply)
      + id                      = (known after apply)
      + idle_timeout_in_minutes = 4
      + ip_address              = (known after apply)
      + ip_version              = "IPv4"
      + location                = "eastus"
      + name                    = "vmss-public-ip"
      + public_ip_address_allocation = (known after apply)
```

```
          [32m+ [0m  [0m [1m [0mresource_group_name [0m [0m          = "ConuTerraformLab"
          [32m+ [0m  [0m [1m [0msku [0m [0m                           = "Basic"
          [32m+ [0m  [0m [1m [0mtags [0m [0m                          = {
              [32m+ [0m  [0m"environment" = "codelab"
            }
      }

  [1m  # azurerm_subnet.vmss [0m will be created [0m [0m
  [0m [32m  + [0m  [0mresource "azurerm_subnet" "vmss" {
          [32m+ [0m  [0m [1m [0maddress_prefix [0m [0m       = "10.0.2.0/24"
          [32m+ [0m  [0m [1m [0mid [0m [0m                   = (known after apply)
          [32m+ [0m  [0m [1m [0mip_configurations [0m [0m    = (known after apply)
          [32m+ [0m  [0m [1m [0mname [0m [0m                 = "vmss-subnet"
          [32m+ [0m  [0m [1m [0mresource_group_name [0m [0m  = "ConuTerraformLab"
          [32m+ [0m  [0m [1m [0mvirtual_network_name [0m [0m = "vmss-vnet"
      }

  [1m  # azurerm_virtual_machine_scale_set.vmss [0m will be created [0m [0m
  [0m [32m  + [0m  [0mresource "azurerm_virtual_machine_scale_set" "vmss" {
          [32m+ [0m  [0m [1m [0mautomatic_os_upgrade [0m [0m   = false
          [32m+ [0m  [0m [1m [0mid [0m [0m                     = (known after apply)
          [32m+ [0m  [0m [1m [0mlicense_type [0m [0m           = (known after apply)
          [32m+ [0m  [0m [1m [0mlocation [0m [0m               = "eastus"
          [32m+ [0m  [0m [1m [0mname [0m [0m                   = "vmscaleset"
          [32m+ [0m  [0m [1m [0moverprovision [0m [0m          = true
          [32m+ [0m  [0m [1m [0mresource_group_name [0m [0m    = "ConuTerraformLab"
          [32m+ [0m  [0m [1m [0msingle_placement_group [0m [0m = true
          [32m+ [0m  [0m [1m [0mtags [0m [0m                   = {
              [32m+ [0m  [0m"environment" = "codelab"
            }
          [32m+ [0m  [0m [1m [0mupgrade_policy_mode [0m [0m    = "Manual"

          [32m+ [0m  [0midentity {
              [32m+ [0m  [0m [1m [0midentity_ids [0m [0m = (known after apply)
              [32m+ [0m  [0m [1m [0mprincipal_id [0m [0m = (known after apply)
              [32m+ [0m  [0m [1m [0mtype [0m [0m         = (known after apply)
            }

          [32m+ [0m  [0mnetwork_profile {
              [32m+ [0m  [0m [1m [0mip_forwarding [0m [0m = false
              [32m+ [0m  [0m [1m [0mname [0m [0m          = "terraformnetworkprofile"
              [32m+ [0m  [0m [1m [0mprimary [0m [0m       = true

              [32m+ [0m  [0mip_configuration {
                  [32m+ [0m  [0m [1m [0mapplication_gateway_backend_address_pool_ids [0m [0m = []
                  [32m+ [0m  [0m [1m [0mapplication_security_group_ids [0m [0m               = []
                  [32m+ [0m  [0m [1m [0mload_balancer_backend_address_pool_ids [0m [0m       = (known after apply)
                  [32m+ [0m  [0m [1m [0mload_balancer_inbound_nat_rules_ids [0m [0m          = (known after apply)
                  [32m+ [0m  [0m [1m [0mname [0m [0m                                          = "IPConfiguration"
                  [32m+ [0m  [0m [1m [0mprimary [0m [0m                                       = true
                  [32m+ [0m  [0m [1m [0msubnet_id [0m [0m                                     = (known after apply)
                }
            }

          [32m+ [0m  [0mos_profile {
              [32m+ [0m  [0m [1m [0madmin_password [0m [0m       = (sensitive value)
              [32m+ [0m  [0m [1m [0madmin_username [0m [0m       = "azureuser"
              [32m+ [0m  [0m [1m [0mcomputer_name_prefix [0m [0m = "vmlab"
              [32m+ [0m  [0m [1m [0mcustom_data [0m [0m          = "ddccb6bd872542b222904bbdf4ee81ee8dfdecc5"
            }

          [32m+ [0m  [0mos_profile_linux_config {
              [32m+ [0m  [0m [1m [0mdisable_password_authentication [0m [0m = false
            }

          [32m+ [0m  [0msku {
              [32m+ [0m  [0m [1m [0mcapacity [0m [0m = 2
              [32m+ [0m  [0m [1m [0mname [0m [0m     = "Standard_DS1_v2"
              [32m+ [0m  [0m [1m [0mtier [0m [0m     = "Standard"
            }

          [32m+ [0m  [0mstorage_profile_data_disk {
              [32m+ [0m  [0m [1m [0mcaching [0m [0m           = "ReadWrite"
              [32m+ [0m  [0m [1m [0mcreate_option [0m [0m     = "Empty"
              [32m+ [0m  [0m [1m [0mdisk_size_gb [0m [0m      = 10
              [32m+ [0m  [0m [1m [0mlun [0m [0m               = 0
              [32m+ [0m  [0m [1m [0mmanaged_disk_type [0m [0m = (known after apply)
            }

          [32m+ [0m  [0mstorage_profile_image_reference {
              [32m+ [0m  [0m [1m [0moffer [0m [0m     = "UbuntuServer"
              [32m+ [0m  [0m [1m [0mpublisher [0m [0m = "Canonical"
              [32m+ [0m  [0m [1m [0msku [0m [0m       = "16.04-LTS"
              [32m+ [0m  [0m [1m [0mversion [0m [0m   = "latest"
            }

          [32m+ [0m  [0mstorage_profile_os_disk {
              [32m+ [0m  [0m [1m [0mcaching [0m [0m           = "ReadWrite"
              [32m+ [0m  [0m [1m [0mcreate_option [0m [0m     = "FromImage"
              [32m+ [0m  [0m [1m [0mmanaged_disk_type [0m [0m = "Standard_LRS"
              [32m+ [0m  [0m [1m [0mvhd_containers [0m [0m    = []
            }
      }

  [1m  # azurerm_virtual_network.vmss [0m will be created [0m [0m
```

```
  [0m [32m  + [0m  [0mresource "azurerm_virtual_network" "vmss" {
      [32m+ [0m  [0m [1m [0maddress_space [0m [0m       = [
          [32m+ [0m  [0m"10.0.0.0/16",
        ]
      [32m+ [0m  [0m [1m [0mid [0m [0m                    = (known after apply)
      [32m+ [0m  [0m [1m [0mlocation [0m [0m              = "eastus"
      [32m+ [0m  [0m [1m [0mname [0m [0m                  = "vmss-vnet"
      [32m+ [0m  [0m [1m [0mresource_group_name [0m [0m = "ConuTerraformLab"
      [32m+ [0m  [0m [1m [0mtags [0m [0m                  = {
          [32m+ [0m  [0m"environment" = "codelab"
        }

      [32m+ [0m  [0msubnet {
          [32m+ [0m  [0m [1m [0maddress_prefix [0m [0m = (known after apply)
          [32m+ [0m  [0m [1m [0mid [0m [0m             = (known after apply)
          [32m+ [0m  [0m [1m [0mname [0m [0m           = (known after apply)
          [32m+ [0m  [0m [1m [0msecurity_group [0m [0m = (known after apply)
        }
    }

  [0m [1mPlan: [0m 8 to add, 0 to change, 0 to destroy. [0m

------------------------------------------------------------------------

Note: You didn't specify an "-out" parameter to save this plan, so Terraform
can't guarantee that exactly these actions will be performed if
"terraform apply" is subsequently run.

[Pipeline] sh
+ terraform apply -auto-approve
  [0m [1mrandom_string.fqdn: Refreshing state... [id=ljwglq] [0m
  [0m [1mazurerm_resource_group.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab] [0m
  [0m [1mazurerm_public_ip.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/publicIPAddresses/vmss-public-ip] [0m
  [0m [1mazurerm_lb.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb] [0m
  [0m [1mazurerm_lb_backend_address_pool.bpepool: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-
lb/backendAddressPools/BackEndAddressPool] [0m
  [0m [1mazurerm_lb_probe.vmss: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/probes/ssh-running-
probe] [0m
  [0m [1mazurerm_lb_rule.lbnatrule: Refreshing state... [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-
lb/loadBalancingRules/http] [0m
  [0m [1mazurerm_virtual_network.vmss: Creating... [0m [0m
  [0m [1mazurerm_public_ip.vmss: Creating... [0m [0m
  [0m [1mazurerm_public_ip.vmss: Creation complete after 6s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/publicIPAddresses/vmss-public-ip] [0m [0m
  [0m [1mazurerm_lb.vmss: Creating... [0m [0m
  [0m [1mazurerm_lb.vmss: Creation complete after 0s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb] [0m [0m
  [0m [1mazurerm_lb_backend_address_pool.bpepool: Creating... [0m [0m
  [0m [1mazurerm_lb_probe.vmss: Creating... [0m [0m
  [0m [1mazurerm_lb_backend_address_pool.bpepool: Creation complete after 1s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-
lb/backendAddressPools/BackEndAddressPool] [0m [0m
  [0m [1mazurerm_lb_probe.vmss: Creation complete after 1s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-lb/probes/ssh-running-
probe] [0m [0m
  [0m [1mazurerm_lb_rule.lbnatrule: Creating... [0m [0m
  [0m [1mazurerm_lb_rule.lbnatrule: Creation complete after 0s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/loadBalancers/vmss-
lb/loadBalancingRules/http] [0m [0m
  [0m [1mazurerm_virtual_network.vmss: Still creating... [10s elapsed] [0m [0m
  [0m [1mazurerm_virtual_network.vmss: Creation complete after 12s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/virtualNetworks/vmss-vnet] [0m [0m
  [0m [1mazurerm_subnet.vmss: Creating... [0m [0m
  [0m [1mazurerm_subnet.vmss: Still creating... [10s elapsed] [0m [0m
  [0m [1mazurerm_subnet.vmss: Creation complete after 10s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Network/virtualNetworks/vmss-vnet/subnets/vmss-
subnet] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Creating... [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [10s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [20s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [30s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [40s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [50s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [1m0s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [1m10s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [1m20s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [1m30s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [1m40s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [1m50s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Still creating... [2m0s elapsed] [0m [0m
  [0m [1mazurerm_virtual_machine_scale_set.vmss: Creation complete after 2m2s [id=/subscriptions/5bce270c-15c2-4be1-82a2-
675ffef48d33/resourceGroups/ConuTerraformLab/providers/Microsoft.Compute/virtualMachineScaleSets/vmscaleset] [0m [0m
  [0m [1m [32m
Apply complete! Resources: 8 added, 0 changed, 0 destroyed. [0m
  [0m [1m [32m
Outputs:

vmss_public_ip = ljwglq.eastus.cloudapp.azure.com [0m
[Pipeline] }
```

```
[Pipeline] // dir
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

La siguiente imagen muestra la parte del output en donde se encuentra la URL del recurso creado:

Probamos la URL:

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Imagen del Resource Group: