# Policy Definition: https://github.com/pjsaha1976/laC/tree/main/policy-definition

#### **Results:**

```
odl_user [ ~/laC/policy-definition ]$ terraform apply
```

var.client id

The user id of the Service Principal identity that terraform will run under

Enter a value: 566b6c6e-5123-4c97-9cf5-60efa9284c57

var.client\_secret

The password/client\_secret of the Service Principal identity that terraform will run under

Enter a value: kL~8Q~T.i.tCGderzbJRTqHDU-UgfJSFUBcQKbqL

var.policy\_name

The name of the Azure Policy Definition

Enter a value: tagging-policy

var.subscription id

The subscription id of that is in scope for this Azure Policy Definition

Enter a value: 456cc604-544c-45f8-99d0-c1b73aeec440

var.tenant id

The tenant id of the Service Principal identity that terraform will run under

Enter a value: f958e84a-92b8-439f-a62d-4f45996b6d07

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

+ create

```
# azurerm_policy_definition.require_tags_on_resources will be created
 + resource "azurerm_policy_definition" "require_tags_on_resources" {
   + description
                     = "Ensures that all indexed resources have tags. Denies deployment if
tags are missing."
   + display_name
                       = "Require tags on all resources"
   + id
                 = (known after apply)
                     = jsonencode(
   + metadata
        + category = "Tags"
        + version = "1.0.0"
    )
   + mode
                    = "Indexed"
   + name
                    = "tagging-policy"
```

```
= jsonencode(
   + policy_rule
        + if = {
           + exists = "false"
           + field = "tags"
        + then = {
           + effect = "deny"
    )
   + policy_type
                      = "Custom"
   + role definition ids = (known after apply)
Plan: 1 to add, 0 to change, 0 to destroy.
Do you want to perform these actions?
 Terraform will perform the actions described above.
 Only 'yes' will be accepted to approve.
 Enter a value: yes
azurerm policy definition.require tags on resources: Creating...
azurerm_policy_definition.require_tags_on_resources: Still creating... [00m10s elapsed]
azurerm_policy_definition.require_tags_on_resources: Still creating... [00m20s elapsed]
azurerm_policy_definition.require_tags_on_resources: Still creating... [00m30s elapsed]
azurerm_policy_definition.require_tags_on_resources: Still creating... [00m40s elapsed]
azurerm policy definition.require tags on resources: Still creating... [00m50s elapsed]
azurerm_policy_definition.require_tags_on_resources: Still creating... [01m00s elapsed]
azurerm policy definition.require tags on resources: Still creating... [01m10s elapsed]
azurerm_policy_definition.require_tags_on_resources: Still creating... [01m20s elapsed]
azurerm_policy_definition.require_tags_on_resources: Still creating... [01m30s elapsed]
azurerm_policy_definition.require_tags_on_resources: Creation complete after 1m34s [id=/
subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/providers/Microsoft.Authorization/
policyDefinitions/tagging-policy]
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
odl_user [ ~/laC/policy-definition ]$ az policy assignment create --policy tagging-policy
Readonly attribute scope will be ignored in class <class
'azure.mgmt.resource.policy.v2021 06 01.models. models py3.PolicyAssignment'>
 "description": null,
```

"id": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/providers/Microsoft.Authorization/policyAssignments/N0XJbDdYQ4OzGoTjkGisQg",

"createdBy": "265db5af-82ad-416d-86fc-13630f699cf7",

"displayName": null,

"identity": null, "location": null, "metadata": {

"enforcementMode": "Default",

```
"createdOn": "2025-07-30T09:28:52.693257Z",
  "updatedBy": null,
  "updatedOn": null
 },
 "name": "N0XJbDdYQ4OzGoTjkGisQg",
 "nonComplianceMessages": null,
 "notScopes": null,
 "parameters": null,
 policyDefinitionId": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/providers/
Microsoft.Authorization/policyDefinitions/tagging-policy",
 "scope": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440".
 "systemData": {
    "createdAt": "2025-07-30T09:28:52.676655+00:00",
    "createdBy": "566b6c6e-5123-4c97-9cf5-60efa9284c57",
  "createdByType": "Application",
  "lastModifiedAt": "2025-07-30T09:28:52.676655+00:00",
  "lastModifiedBy": "566b6c6e-5123-4c97-9cf5-60efa9284c57".
  "lastModifiedByType": "Application"
 'type": "Microsoft.Authorization/policyAssignments"
odl user [~/laC/policy-definition]$ az policy assignment list
  "description": null,
  "displayName": null,
  "enforcementMode": "Default".
  "id": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/providers/
Microsoft.Authorization/policyAssignments/N0XJbDdYQ4OzGoTjkGisQg",
  "identity": null,
  "location": null,
  "metadata": {
   "createdBy": "265db5af-82ad-416d-86fc-13630f699cf7",
   "createdOn": "2025-07-30T09:28:52.693257Z",
   "updatedBy": null,
   "updatedOn": null
  "name": "N0XJbDdYQ4OzGoTjkGisQg",
  "nonComplianceMessages": null,
  "notScopes": null,
  "parameters": null,
  "policyDefinitionId": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/providers/
Microsoft.Authorization/policyDefinitions/tagging-policy",
  "scope": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440",
  "svstemData": {
    "createdAt": "2025-07-30T09:28:52.676655+00:00",
   "createdBy": "566b6c6e-5123-4c97-9cf5-60efa9284c57",
   "createdByType": "Application",
   "lastModifiedAt": "2025-07-30T09:28:52.676655+00:00".
   "lastModifiedBy": "566b6c6e-5123-4c97-9cf5-60efa9284c57",
   "lastModifiedByType": "Application"
```

```
},
"type": "Microsoft.Authorization/policyAssignments"
  "description": "clouddevops674-285063-PolicyDefinition",
  "displayName": "clouddevops674-285063-PolicyDefinition",
  "enforcementMode": "Default",
  "id": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/providers/
Microsoft.Authorization/policyAssignments/clouddevops674-285063-PolicyDefinition",
  "identity": null,
  "location": null,
  "metadata": {
   "createdBy": "f797eca9-5d09-44b6-b23f-98732363911c",
   "createdOn": "2025-07-30T09:03:45.6891574Z",
   "updatedBy": null,
   "updatedOn": null
  "name": "clouddevops674-285063-PolicyDefinition",
  "nonComplianceMessages": null,
  "notScopes": null,
  "parameters": null,
  "policyDefinitionId": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/providers/
Microsoft.Authorization/policyDefinitions/clouddevops674-285063-PolicyDefinition",
  "scope": "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440",
  "systemData": {
   "createdAt": "2025-07-30T09:03:45.674056+00:00",
   "createdBy": "0609ced8-c8f7-49fd-91c2-c484ddad694d",
   "createdByType": "Application",
   "lastModifiedAt": "2025-07-30T09:03:45.674056+00:00",
   "lastModifiedBy": "0609ced8-c8f7-49fd-91c2-c484ddad694d",
   "lastModifiedByType": "Application"
   'type": "Microsoft.Authorization/policyAssignments"
odl_user [ ~/laC/policy-definition ]$
packer build server.json
```

pjsaha@web-svr:~/laC/packer-template\$ packer build server.json

==> Wait completed after 5 minutes 1 second

==> Builds finished. The artifacts of successful builds are:

--> azure-arm: Azure.ResourceManagement.VMImage:

OSType: Linux

ManagedImageResourceGroupName: Azuredevops

ManagedImageName: packer-ubuntu-server

ManagedImageId: /subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/ Azuredevops/providers/Microsoft.Compute/images/packer-ubuntu-server ManagedImageLocation: East US

### terraform plan -out solution.plan

jsaha@web-svr:~/laC/terraform-template\$ terraform plan -out solution.plan var.admin\_password
Admin password for the VM

Enter a value:

var.client id

The user id of the Service Principal identity that terraform will run under

Enter a value: a150f3db-9352-4bc0-9bea-ae879693a190

var.client secret

The password/client\_secret of the Service Principal identity that terraform will run under

Enter a value: pfa8Q~6.rymPq-2XhBj0V5B0tWtWx1BSi0xiPb4N

var.subscription\_id

The subscription id of that is in scope for this Azure Policy Definition

Enter a value: 456cc604-544c-45f8-99d0-c1b73aeec440

var.tenant id

The tenant id of the Service Principal identity that terraform will run under

Enter a value: f958e84a-92b8-439f-a62d-4f45996b6d07

data.azurerm\_image.packer\_image: Reading... data.azurerm\_image.packer\_image: Read complete after 0s [id=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Compute/images/packer-ubuntu-server]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

+ create

```
+ platform_update_domain_count = 2
  + resource_group_name
                                = "Azuredevops"
# azurerm_lb.main_lb will be created
+ resource "azurerm_lb" "main_lb" {
  + id
                 = (known after apply)
                   = "eastus"
  + location
                    = "demo-lb"
  + name
  + private_ip_address = (known after apply)
  + private_ip_addresses = (known after apply)
  + resource_group_name = "Azuredevops"
                  = "Basic"
  + sku
                   = "Regional"
  + sku tier
  + frontend_ip_configuration {
     + gateway_load_balancer_frontend_ip_configuration_id = (known after apply)
    + id
                                      = (known after apply)
    + inbound_nat_rules
                                             = (known after apply)
                                             = (known after apply)
     + load balancer rules
                                         = "PublicIPAddress"
    + name
     + outbound_rules
                                            = (known after apply)
     + private_ip_address
                                             = (known after apply)
     + private ip address allocation
                                                 = (known after apply)
     + private_ip_address_version
                                                = (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.main_bepool will be created
+ resource "azurerm_lb_backend_address_pool" "main_bepool" {
  + backend_ip_configurations = (known after apply)
  + id
                    = (known after apply)
  + inbound_nat_rules
                           = (known after apply)
  + load_balancing_rules
                            = (known after apply)
                          = (known after apply)
  + loadbalancer_id
                       = "demo-bepool"
  + name
                          = (known after apply)
  + outbound rules
# azurerm_linux_virtual_machine.main_vm will be created
+ resource "azurerm_linux_virtual_machine" "main_vm" {
                                              = (sensitive value)
  + admin_password
  + admin username
                                              = "pjsaha"
  + allow_extension_operations
                                                 = true
  + availability_set_id
                                           = (known after apply)
  + bypass_platform_safety_checks_on_user_schedule_enabled = false
                                              = (known after apply)
  + computer_name
  + disable password authentication
                                                   = false
  + disk_controller_type
                                             = (known after apply)
                                                = "PT1H30M"
  + extensions_time_budget
  + id
                                      = (known after apply)
```

```
+ location
                                         = "eastus"
   + max_bid_price
                                            = -1
                                         = "demo-vm"
   + name
   + network_interface_ids
                                               = (known after apply)
                                                  = "ImageDefault"
   + patch_assessment_mode
   + patch_mode
                                            = "ImageDefault"
   + platform fault domain
                                               = -1
                                        = "Regular"
   + priority
   + private_ip_address
                                             = (known after apply)
   + private_ip_addresses
                                               = (known after apply)
   + provision_vm_agent
                                               = true
   + public_ip_address
                                             = (known after apply)
                                               = (known after apply)
   + public_ip_addresses
                                                = "Azuredevops"
   + resource_group_name
                                       = "Standard_D2s_v3"
                                             = "/subscriptions/456cc604-544c-45f8-99d0-
   + source_image_id
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Compute/images/packer-
ubuntu-server"
   + tags
                                        = {
      + "Project" = "Udacity-Costco-Cloud-Infrastructure"
   + virtual_machine_id
                                             = (known after apply)
   + vm_agent_platform_updates_enabled
                                                      = (known after apply)
   + os_disk {
      + caching
                          = "ReadWrite"
      + disk_size_gb
                            = (known after apply)
      + id
                        = (known after apply)
                          = "demo-osdisk"
      + name
                                = "Standard LRS"
      + storage_account_type
      + write_accelerator_enabled = false
   + termination_notification (known after apply)
 # azurerm_managed_disk.main_data_disk will be created
 + resource "azurerm_managed_disk" "main_data_disk" {
                               = "Empty"
   + create_option
   + disk iops read only
                                 = (known after apply)
   + disk_iops_read_write
                                  = (known after apply)
   + disk_mbps_read_only
                                   = (known after apply)
   + disk_mbps_read_write
                                   = (known after apply)
                               = 64
   + disk_size_gb
                          = (known after apply)
   + id
   + location
                            = "eastus"
   + logical_sector_size
                                = (known after apply)
                               = (known after apply)
   + max_shares
                            = "demo-datadisk"
   + name
                                   = "AllowAll"
   + network_access_policy
   + optimized frequent attach enabled = false
   + performance_plus_enabled
                                     = false
   + public_network_access_enabled = true
                                   = "Azuredevops"
   + resource_group_name
```

```
= (known after apply)
   + source_uri
                                   = "Standard LRS"
   + storage_account_type
   + tier
                          = (known after apply)
# azurerm_network_interface.main_nic will be created
+ resource "azurerm network interface" "main nic" {
   + accelerated_networking_enabled = false
   + applied_dns_servers
                                = (known after apply)
                        = (known after apply)
   + id
   + internal_domain_name_suffix = (known after apply)
   + ip_forwarding_enabled
                                 = false
   + location
                          = "eastus"
   + mac_address
                              = (known after apply)
                          = "demo-nic"
   + name
   + private_ip_address
                              = (known after apply)
   + private_ip_addresses
                                = (known after apply)
                                 = "Azuredevops"
   + resource group name
   + virtual_machine_id
                              = (known after apply)
   + ip_configuration {
     + gateway_load_balancer_frontend_ip_configuration_id = (known after apply)
                                         = "internal"
     + name
     + primary
                                         = (known after apply)
     + private_ip_address
                                             = (known after apply)
     + private_ip_address_allocation
                                                 = "Dynamic"
                                                 = "IPv4"
     + private_ip_address_version
                                          = (known after apply)
     + subnet_id
 }
# azurerm_network_interface_backend_address_pool_association.main_nic_lb_assoc will be
+ resource "azurerm_network_interface_backend_address_pool_association"
"main_nic_lb_assoc" {
   + backend_address_pool_id = (known after apply)
   + id
                    = (known after apply)
   + ip_configuration_name = "internal"
   + network_interface_id = (known after apply)
# azurerm network security group.main nsg will be created
+ resource "azurerm_network_security_group" "main_nsg" {
                 = (known after apply)
   + id
                   = "eastus"
   + location
   + name
                    = "demo-nsg"
   + resource_group_name = "Azuredevops"
   + security_rule
                     = [
     + {
                                       = "Allow"
        + access
                                              = "*"
        + destination address prefix
        + destination_address_prefixes
        + destination_application_security_group_ids = []
        + destination_port_range
```

```
+ destination_port_ranges
                                       = [
                                = "Inbound"
 + direction
                                = "Allow-HTTP-From-LB"
 + name
 + priority
                               = 200
                                 = "Tcp"
 + protocol
 + source_address_prefix
                                       = "AzureLoadBalancer"
 + source address prefixes
 + source_application_security_group_ids
                                             = П
 + source_port_range
 + source_port_ranges
                                      = Π
  # (1 unchanged attribute hidden)
                                 = "Allow"
 + access
 + destination_address_prefix
                                        = "VirtualNetwork"
 + destination_address_prefixes
                                         = []
 + destination_application_security_group_ids = []
                                      = "*"
 + destination port range
 + destination_port_ranges
                                       = [
                                = "Inbound"
 + direction
                                = "Allow-VNet-Inbound"
 + name
 + priority
                               = 300
                                = "*"
 + protocol
                                       = "VirtualNetwork"
 + source_address_prefix
 + source_address_prefixes
                                        = П
 + source_application_security_group_ids
                                             = П
 + source_port_range
 + source_port_ranges
                                      = Π
  # (1 unchanged attribute hidden)
},
 + access
                                 = "Allow"
 + destination_address_prefix
                                        = "VirtualNetwork"
 + destination_address_prefixes
                                         = []
 + destination_application_security_group_ids = []
 + destination_port_range
 + destination_port_ranges
                                = "Outbound"
 + direction
                                = "Allow-VNet-Outbound"
 + name
                               = 400
 + priority
                                = "*"
 + protocol
 + source_address_prefix
                                       = "VirtualNetwork"
 + source_address_prefixes
                                        = [
 + source_application_security_group_ids
                                             = 0
 + source_port_range
 + source_port_ranges
                                      = [
  # (1 unchanged attribute hidden)
},
                                 = "Deny"
 + access
 + destination address prefix
 + destination_address_prefixes
 + destination_application_security_group_ids = []
 + destination_port_range
```

```
+ destination_port_ranges
                                            = [
                                     = "Inbound"
       + direction
                                     = "Deny-Internet-Inbound"
       + name
       + priority
                                    = 100
                                     = "*"
       + protocol
       + source_address_prefix
                                           = "Internet"
       + source address prefixes
                                             =\Pi
       + source_application_security_group_ids
                                                  = Π
       + source_port_range
       + source_port_ranges
                                           = [
        # (1 unchanged attribute hidden)
     },
   ]
 }
# azurerm_public_ip.main_public_ip will be created
+ resource "azurerm_public_ip" "main_public_ip" {
                         = "Dynamic"
  + allocation method
  + ddos_protection_mode = "VirtualNetworkInherited"
                    = (known after apply)
  + fadn
  + id
                   = (known after apply)
  + idle timeout_in_minutes = 4
                     = (known after apply)
  + ip_address
                      = "IPv4"
  + ip version
                     = "eastus"
  + location
                   = "demo-public-ip"
  + name
  + resource_group_name = "Azuredevops"
                   = "Basic"
  + sku
                     = "Regional"
  + sku tier
# azurerm_subnet.main_subnet will be created
+ resource "azurerm_subnet" "main_subnet" {
  + address_prefixes
    + "10.0.1.0/24",
  + default_outbound_access_enabled
                                = (known after apply)
  + id
                                  = "demo-subnet"
  + name
                                             = "Disabled"
  + private endpoint network policies
  + private_link_service_network_policies_enabled = true
  + resource group name
                                         = "Azuredevops"
                                        = "demo-vnet"
  + virtual_network_name
# azurerm_subnet_network_security_group_association.main_assoc will be created
+ resource "azurerm_subnet_network_security_group_association" "main_assoc" {
                    = (known after apply)
  + network_security_group_id = (known after apply)
                       = (known after apply)
  + subnet_id
# azurerm virtual machine data disk attachment.main data disk attach will be created
+ resource "azurerm_virtual_machine_data_disk_attachment" "main_data_disk_attach" {
```

```
+ caching
                         = "ReadWrite"
   + create_option
                           = "Attach"
   + id
                      = (known after apply)
   + lun
                      = 0
   + managed_disk_id
                             = (known after apply)
   + managed_disk_id = (known after apply)
+ virtual_machine_id = (known after apply)
   + write accelerator enabled = false
 # azurerm_virtual_network.main_vnet will be created
 + resource "azurerm_virtual_network" "main_vnet" {
   + address_space
                            = [
      + "10.0.0.0/16",
   + dns_servers
                            = (known after apply)
                       = (known after apply)
   + guid
   + guio

+ id = (known afte

+ location = "eastus"

= "demo-v
                         = (known after apply)
                          = "demo-vnet"
   + private_endpoint_vnet_policies = "Disabled"
   + resource_group_name = "Azuredevops"
   + subnet
                           = (known after apply)
Plan: 13 to add, 0 to change, 0 to destroy.
```

Saved the plan to: solution.plan

To perform exactly these actions, run the following command to apply: terraform apply "solution.plan" pjsaha@web-svr:~/IaC/terraform-template\$

## terraform show solution.plan

pjsaha@web-svr:~/laC/terraform-template\$ terraform show solution.plan

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

+ create

```
# azurerm_availability_set.main_avset will be created
+ resource "azurerm_availability_set" "main_avset" {
```

```
+ id
                      = (known after apply)
  + location
                        = "eastus"
                          = true
  + managed
  + name
                        = "demo-avset"
  + platform_fault_domain_count = 2
  + platform_update_domain_count = 2
  + resource_group_name
                               = "Azuredevops"
# azurerm_lb.main_lb will be created
+ resource "azurerm_lb" "main_lb" {
  + id
                 = (known after apply)
                   = "eastus"
  + location
                    = "demo-lb"
  + name
  + private_ip_address = (known after apply)
  + private_ip_addresses = (known after apply)
  + resource_group_name = "Azuredevops"
                  = "Basic"
  + sku
                   = "Regional"
  + sku_tier
  + frontend_ip_configuration {
     + gateway_load_balancer_frontend_ip_configuration_id = (known after apply)
    + id
                                      = (known after apply)
    + 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)
     + private_ip_address_version
                                                = (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.main_bepool will be created
+ resource "azurerm_lb_backend_address_pool" "main_bepool" {
  + backend_ip_configurations = (known after apply)
  + id
                    = (known after apply)
                           = (known after apply)
  + inbound_nat_rules
  + load_balancing_rules
                            = (known after apply)
  + loadbalancer_id
                          = (known after apply)
                       = "demo-bepool"
  + name
                          = (known after apply)
  + outbound_rules
# azurerm_linux_virtual_machine.main_vm will be created
+ resource "azurerm_linux_virtual_machine" "main_vm" {
  + admin_password
                                              = (sensitive value)
  + admin username
                                              = "pisaha"
  + allow_extension_operations
                                                 = true
  + availability set id
                                           = (known after apply)
  + bypass_platform_safety_checks_on_user_schedule_enabled = false
```

```
= (known after apply)
   + computer_name
   + disable_password_authentication
                                                    = false
                                              = (known after apply)
   + disk_controller_type
   + extensions_time_budget
                                                 = "PT1H30M"
   + id
                                       = (known after apply)
   + location
                                         = "eastus"
   + max bid price
                                             = -1
   + name
                                         = "demo-vm"
   + network_interface_ids
                                               = (known after apply)
   + patch_assessment_mode
                                                  = "ImageDefault"
                                            = "ImageDefault"
   + patch mode
   + platform_fault_domain
                                               = -1
   + priority
                                        = "Regular"
   + private_ip_address
                                              = (known after apply)
   + private_ip_addresses
                                               = (known after apply)
   + provision_vm_agent
                                               = true
                                              = (known after apply)
   + public_ip_address
   + public ip addresses
                                               = (known after apply)
                                                 = "Azuredevops"
   + resource_group_name
                                        = "Standard D2s v3"
   + size
   + source_image_id
                                              = "/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Compute/images/packer-
ubuntu-server"
   + tags
      + "Project" = "Udacity-Costco-Cloud-Infrastructure"
   + virtual_machine_id
                                             = (known after apply)
   + vm_agent_platform_updates_enabled
                                                       = (known after apply)
   + os_disk {
                          = "ReadWrite"
      + caching
      + disk_size_gb
                            = (known after apply)
                        = (known after apply)
      + id
                          = "demo-osdisk"
      + name
                                = "Standard_LRS"
      + storage_account_type
      + write_accelerator_enabled = false
   + termination_notification (known after apply)
 # azurerm_managed_disk.main_data_disk will be created
 + resource "azurerm_managed_disk" "main_data_disk" {
                               = "Empty"
   + create option
   + disk_iops_read_only
                                  = (known after apply)
   + disk_iops_read_write
                                  = (known after apply)
   + disk_mbps_read_only
                                   = (known after apply)
   + disk_mbps_read_write
                                   = (known after apply)
                               = 64
   + disk_size_gb
   + id
                          = (known after apply)
                            = "eastus"
   + location
   + logical_sector_size
                                = (known after apply)
                               = (known after apply)
   + max shares
                            = "demo-datadisk"
   + name
```

```
+ network_access_policy
                                   = "AllowAll"
   + optimized frequent attach enabled = false
   + performance_plus_enabled
                                     = false
   + public_network_access_enabled = true
   + resource_group_name
                                    = "Azuredevops"
   + source_uri
                             = (known after apply)
   + storage_account_type
                                   = "Standard LRS"
                          = (known after apply)
   + tier
 # azurerm network interface.main nic will be created
 + resource "azurerm_network_interface" "main_nic" {
   + accelerated networking enabled = false
   + applied_dns_servers
                                = (known after apply)
   + id
                        = (known after apply)
   + internal_domain_name_suffix = (known after apply)
   + ip_forwarding_enabled
                                 = false
                          = "eastus"
   + location
                              = (known after apply)
   + mac_address
                          = "demo-nic"
   + name
   + private_ip_address
                               = (known after apply)
   + private_ip_addresses
                                = (known after apply)
   + resource_group_name
                                  = "Azuredevops"
                               = (known after apply)
   + virtual_machine_id
   + ip configuration {
      + gateway_load_balancer_frontend_ip_configuration_id = (known after apply)
                                         = "internal"
      + name
                                         = (known after apply)
      + primary
      + private_ip_address
                                              = (known after apply)
      + private_ip_address_allocation
                                                 = "Dynamic"
      + private_ip_address_version
                                                 = "IPv4"
                                          = (known after apply)
      + subnet id
  }
 # azurerm network interface_backend_address_pool_association.main_nic_lb_assoc will be
created
 + resource "azurerm_network_interface_backend_address_pool_association"
"main nic lb assoc" {
   + backend_address_pool_id = (known after apply)
                    = (known after apply)
   + ip_configuration_name = "internal"
   + network_interface_id = (known after apply)
 # azurerm_network_security_group.main_nsg will be created
 + resource "azurerm_network_security_group" "main_nsg" {
   + id
                  = (known after apply)
                    = "eastus"
   + location
                    = "demo-nsg"
   + name
   + resource_group_name = "Azuredevops"
   + security_rule
      + {
```

```
= "Allow"
  + access
  + destination_address_prefix
  + destination_address_prefixes
                                          = []
  + destination_application_security_group_ids = []
                                        = "80"
  + destination_port_range
  + destination_port_ranges
                                        = [
                                  = "Inbound"
  + direction
                                 = "Allow-HTTP-From-LB"
  + name
                                = 200
  + priority
                                  = "Tcp"
  + protocol
                                        = "AzureLoadBalancer"
  + source_address_prefix
  + source_address_prefixes
  + source_application_security_group_ids
                                              = П
  + source_port_range
  + source_port_ranges
                                       = Π
   # (1 unchanged attribute hidden)
                                  = "Allow"
  + access
                                         = "VirtualNetwork"
  + destination_address_prefix
  + destination_address_prefixes
  + destination_application_security_group_ids = []
  + destination_port_range
  + destination_port_ranges
                                 = "Inbound"
  + direction
  + name
                                 = "Allow-VNet-Inbound"
  + priority
                                = 300
                                  = "*"
  + protocol
                                        = "VirtualNetwork"
  + source address prefix
  + source_address_prefixes
                                         = \Pi
  + source_application_security_group_ids
                                              = [
  + source_port_range
  + source_port_ranges
                                       = []
   # (1 unchanged attribute hidden)
 },
  + access
                                  = "Allow"
                                         = "VirtualNetwork"
  + destination_address_prefix
  + destination_address_prefixes
  + destination_application_security_group_ids = []
  + destination_port_range
  + destination_port_ranges
                                        = \Pi
  + direction
                                  = "Outbound"
                                 = "Allow-VNet-Outbound"
  + name
                                = 400
  + priority
  + protocol
  + source_address_prefix
                                        = "VirtualNetwork"
  + source_address_prefixes
                                         = П
  + source_application_security_group_ids
  + source_port_range
  + source_port_ranges
                                       = Π
   # (1 unchanged attribute hidden)
+ {
```

```
= "Deny"
       + access
       + destination_address_prefix
       + destination_address_prefixes
                                             = []
       + destination_application_security_group_ids = []
       + destination_port_range
       + destination_port_ranges
                                           = [
                                     = "Inbound"
       + direction
                                     = "Deny-Internet-Inbound"
       + name
                                    = 100
       + priority
       + protocol
                                           = "Internet"
       + source_address_prefix
       + source_address_prefixes
                                            = [
       + source_application_security_group_ids
                                                 = П
       + source_port_range
       + source_port_ranges
                                          = Π
        # (1 unchanged attribute hidden)
     },
   ]
# azurerm_public_ip.main_public_ip will be created
+ resource "azurerm_public_ip" "main_public_ip" {
                       = "Dynamic"
  + allocation_method
  + ddos_protection_mode = "VirtualNetworkInherited"
  + fadn
                    = (known after apply)
  + id
                  = (known after apply)
  + idle_timeout_in_minutes = 4
  + ip_address = (known after apply)
                     = "IPv4"
  + ip version
                    = "eastus"
  + location
              = "demo-public-ip"
  + name
  + resource_group_name = "Azuredevops"
                   = "Basic"
  + sku
                     = "Regional"
  + sku_tier
# azurerm_subnet.main_subnet will be created
+ resource "azurerm_subnet" "main_subnet" {
  + address_prefixes
    + "10.0.1.0/24",
  + default_outbound_access_enabled
  + id
                                = (known after apply)
  + name
                                  = "demo-subnet"
  + private_endpoint_network_policies
                                             = "Disabled"
  + private_link_service_network_policies_enabled = true
                                        = "Azuredevops"
  + resource_group_name
  + virtual_network_name
                                        = "demo-vnet"
# azurerm subnet network security group association.main assoc will be created
+ resource "azurerm_subnet_network_security_group_association" "main_assoc" {
  + id
                    = (known after apply)
  + network_security_group_id = (known after apply)
```

```
+ subnet_id
                       = (known after apply)
# azurerm virtual machine data disk attachment.main data disk attach will be created
+ resource "azurerm_virtual_machine_data_disk_attachment" "main_data_disk_attach" {
  + caching
                       = "ReadWrite"
  + create option
                         = "Attach"
                    = (known after apply)
  + id
  + lun
                    = 0
  + managed_disk_id
                           = (known after apply)
                          = (known after apply)
  + virtual machine id
  + write accelerator enabled = false
# azurerm virtual network.main vnet will be created
+ resource "azurerm_virtual_network" "main_vnet" {
  + address_space
     + "10.0.0.0/16",
                           = (known after apply)
  + dns servers
  + guid
                        = (known after apply)
  + id
                       = (known after apply)
                         = "eastus"
  + location
                         = "demo-vnet"
  + name
  + private_endpoint_vnet_policies = "Disabled"
  + resource_group_name
                                = "Azuredevops"
  + subnet
                         = (known after apply)
```

Plan: 13 to add, 0 to change, 0 to destroy. pjsaha@web-svr:~/laC/terraform-template\$

### terraform apply solution.plan

```
pjsaha@web-svr:~/laC/terraform-template$ terraform apply solution.plan
azurerm public ip.main public ip: Creating...
azurerm managed disk.main data disk: Creating...
azurerm availability set.main avset: Creating...
azurerm virtual network.main vnet: Creating...
azurerm_network_security_group.main_nsg: Creating...
azurerm_availability_set.main_avset: Creation complete after 2s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Compute/availabilitySets/demo-avset]
azurerm public ip.main public ip: Creation complete after 3s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/publicIPAddresses/demo-public-ip]
azurerm network security group.main nsg: Creation complete after 3s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/networkSecurityGroups/demo-nsgl
azurerm Ib.main Ib: Creating...
```

```
azurerm_managed_disk.main_data_disk: Creation complete after 5s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Compute/disks/demo-datadiskl
azurerm virtual network.main vnet: Creation complete after 6s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/virtualNetworks/demo-vnet]
azurerm subnet.main subnet: Creating...
azurerm subnet.main subnet: Creation complete after 5s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/virtualNetworks/demo-vnet/subnets/demo-subnet]
azurerm_subnet_network_security_group_association.main_assoc: Creating...
azurerm_network_interface.main_nic: Creating...
azurerm lb.main lb: Still creating... [00m10s elapsed]
azurerm_lb.main_lb: Creation complete after 12s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/loadBalancers/demo-lbl
azurerm_lb_backend_address_pool.main_bepool: Creating...
azurerm subnet network security group association.main assoc: Creation complete after 5s
[id=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/
providers/Microsoft.Network/virtualNetworks/demo-vnet/subnets/demo-subnet]
azurerm_network_interface.main_nic: Still creating... [00m10s elapsed]
azurerm_lb_backend_address_pool.main_bepool: Still creating... [00m10s elapsed]
azurerm_network_interface.main_nic: Creation complete after 17s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/networkInterfaces/demo-nic]
azurerm linux virtual machine.main vm: Creating...
azurerm_lb_backend_address_pool.main_bepool: Creation complete after 16s [id=/
subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/
providers/Microsoft.Network/loadBalancers/demo-lb/backendAddressPools/demo-bepool]
azurerm_network_interface_backend_address_pool_association.main_nic_lb_assoc: Creating...
azurerm_network_interface_backend_address_pool_association.main_nic_lb_assoc: Creation
complete after 3s [id=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic/
ipConfigurations/internal|/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb/
backendAddressPools/demo-bepooll
azurerm linux virtual machine.main vm: Still creating... [00m10s elapsed]
azurerm_linux_virtual_machine.main_vm: Still creating... [00m20s elapsed]
azurerm_linux_virtual_machine.main_vm: Still creating... [00m30s elapsed]
azurerm linux virtual machine.main vm: Still creating... [00m40s elapsed]
azurerm_linux_virtual_machine.main_vm: Creation complete after 48s [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Compute/virtualMachines/demo-vm]
azurerm_virtual_machine_data_disk_attachment.main_data_disk_attach: Creating...
azurerm_virtual_machine_data_disk_attachment.main_data_disk_attach: Creation complete
after 8s [id=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/
Azuredevops/providers/Microsoft.Compute/virtualMachines/demo-vm/dataDisks/demo-
datadisk]
```

Apply complete! Resources: 13 added, 0 changed, 0 destroyed.

## **Terraform destroy**

pjsaha@web-svr:~/laC/terraform-template\$ terraform destroy var.admin\_password
Admin password for the VM

Enter a value:

var.client id

The user id of the Service Principal identity that terraform will run under

Enter a value: a150f3db-9352-4bc0-9bea-ae879693a190

var.client secret

The password/client\_secret of the Service Principal identity that terraform will run under

Enter a value: pfa8Q~6.rymPq-2XhBj0V5B0tWtWx1BSi0xiPb4N

var.subscription id

The subscription id of that is in scope for this Azure Policy Definition

Enter a value: 456cc604-544c-45f8-99d0-c1b73aeec440

var.tenant id

The tenant id of the Service Principal identity that terraform will run under

Enter a value: f958e84a-92b8-439f-a62d-4f45996b6d07

azurerm virtual network.main vnet: Refreshing state... [id=/subscriptions/

456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/

Microsoft.Network/virtualNetworks/demo-vnet]

azurerm\_availability\_set.main\_avset: Refreshing state... [id=/subscriptions/

456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/

Microsoft.Compute/availabilitySets/demo-avset1

data.azurerm image.packer image: Reading...

azurerm public ip.main public ip: Refreshing state... [id=/subscriptions/

456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/

Microsoft.Network/publicIPAddresses/demo-public-ip]

azurerm managed disk.main data disk: Refreshing state... [id=/subscriptions/

456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/

Microsoft.Compute/disks/demo-datadisk]

azurerm\_network\_security\_group.main\_nsg: Refreshing state... [id=/subscriptions/

456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/

Microsoft.Network/networkSecurityGroups/demo-nsg]

data.azurerm\_image.packer\_image: Read complete after 0s [id=/subscriptions/

456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/

Microsoft.Compute/images/packer-ubuntu-server]

azurerm\_lb.main\_lb: Refreshing state... [id=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/

demo-lb]

azurerm subnet.main subnet: Refreshing state... [id=/subscriptions/

456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/

Microsoft.Network/virtualNetworks/demo-vnet/subnets/demo-subnet]

azurerm\_lb\_backend\_address\_pool.main\_bepool: Refreshing state... [id=/subscriptions/ 456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/ Microsoft.Network/loadBalancers/demo-lb/backendAddressPools/demo-bepool] azurerm subnet network security group association.main assoc: Refreshing state... [id=/ subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/ providers/Microsoft.Network/virtualNetworks/demo-vnet/subnets/demo-subnet] azurerm network interface.main nic: Refreshing state... [id=/subscriptions/ 456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/ Microsoft.Network/networkInterfaces/demo-nicl azurerm\_network\_interface\_backend\_address\_pool\_association.main\_nic\_lb\_assoc: Refreshing state... [id=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/ resourceGroups/Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic/ ipConfigurations/internall/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/ resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb/ backendAddressPools/demo-bepooll azurerm\_linux\_virtual\_machine.main\_vm: Refreshing state... [id=/subscriptions/ 456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/ Microsoft.Compute/virtualMachines/demo-vml azurerm\_virtual\_machine\_data\_disk\_attachment.main\_data\_disk\_attach: Refreshing state... lid=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/ providers/Microsoft.Compute/virtualMachines/demo-vm/dataDisks/demo-datadisk]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

- destroy

```
# azurerm availability set.main avset will be destroyed
 - resource "azurerm_availability_set" "main_avset" {
                       = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Compute/availabilitySets/demo-avset" ->
null
                         = "eastus" -> null

    location

    managed

                           = true -> null
                         = "demo-avset" -> null
   - name
   - platform fault domain count = 2 -> null
   - platform_update_domain_count = 2 -> null
                                = "Azuredevops" -> null
   resource_group_name
                        = \{\} -> null
   - tags
 # azurerm_lb.main_lb will be destroyed
 - resource "azurerm_lb" "main_lb" {
                  = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb" -> null
                    = "eastus" -> null

    location

                    = "demo-lb" -> null
   - name
   - private_ip_addresses = [] -> null
   - resource_group_name = "Azuredevops" -> null
                  = "Basic" -> null
   - sku
   sku_tier
                   = "Regional" -> null
                   = {} -> null
   - tags
    # (2 unchanged attributes hidden)
```

```
- frontend_ip_configuration {
                                      = "/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/
demo-lb/frontendIPConfigurations/PublicIPAddress" -> null
      - inbound_nat_rules
                                             = ∏ -> null
      - load balancer rules
                                             = ∏ -> null
                                        = "PublicIPAddress" -> null
      - name
      - outbound rules
                                            = [] -> null
      - private_ip_address_allocation
                                                 = "Dynamic" -> null
      - public_ip_address_id
                                              = "/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/publicIPAddresses/
demo-public-ip" -> null
      - zones
                                        = ∏ -> null
       # (5 unchanged attributes hidden)
  }
 # azurerm_lb_backend_address_pool.main_bepool will be destroyed
 - resource "azurerm_lb_backend_address_pool" "main_bepool" {
   - backend_ip_configurations = [
      - "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/
Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic/ipConfigurations/
internal",
    ] -> null
                     = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
   - id
resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb/
backendAddressPools/demo-bepool" -> null
   - inbound nat rules
                           = ∏ -> null
   load_balancing_rules
                            = [] -> null
                          = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
   - loadbalancer id
resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb" -> null
                       = "demo-bepool" -> null
   - name
   - outbound rules
                           = ∏ -> null
    # (2 unchanged attributes hidden)
 # azurerm_linux_virtual_machine.main_vm will be destroyed
 - resource "azurerm_linux_virtual_machine" "main_vm" {
   - admin password
                                             = (sensitive value) -> null
   - admin_username
                                              = "pjsaha" -> null
   - allow_extension_operations
                                                 = true -> null
                                           = "/subscriptions/456cc604-544c-45f8-99d0-
   availability_set_id
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Compute/availabilitySets/
DEMO-AVSET" -> null
   - bypass_platform_safety_checks_on_user_schedule_enabled = false -> null
   - computer name
                                             = "demo-vm" -> null
   disable_password_authentication
                                                   = false -> null
   - encryption_at_host_enabled
                                                 = false -> null
   - extensions_time_budget
                                                = "PT1H30M" -> null
                                      = "/subscriptions/456cc604-544c-45f8-99d0-
   - id
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Compute/virtualMachines/
demo-vm" -> null
   - location
                                        = "eastus" -> null
```

```
- max_bid_price
                                            = -1 -> null
   - name
                                         = "demo-vm" -> null
   - network interface ids
      - "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/
Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic",
    1 -> null
                                                  = "ImageDefault" -> null
   - patch assessment mode
   - patch_mode
                                            = "ImageDefault" -> null
   - platform_fault_domain
                                               = -1 -> null
                                        = "Regular" -> null
   - priority
                                             = "10.0.1.4" -> null
   - private_ip_address
   - private_ip_addresses
                                              = [
      - "10.0.1.4",
    ] -> null
   provision_vm_agent
                                              = true -> null
   - public_ip_addresses
                                              = ∏ -> null
                                                = "Azuredevops" -> null
   - resource_group_name
   - secure boot enabled
                                               = false -> null
                                       = "Standard D2s v3" -> null
   - size
                                             = "/subscriptions/456cc604-544c-45f8-99d0-
   - source image id
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Compute/images/packer-
ubuntu-server" -> null
   - tags
                                        = {
      - "Project" = "Udacity-Costco-Cloud-Infrastructure"
    } -> null
                                             = "c9a5b46c-8b39-4e60-8fca-e612798c105f"
   - virtual machine id
-> null
   - vm_agent_platform_updates_enabled
                                                       = false -> null
   - vtpm enabled
                                             = false -> null
    # (13 unchanged attributes hidden)
   - os_disk {
                              = "ReadWrite" -> null
      - caching
      - disk_size_gb
                                = 30 -> null
                           = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Compute/disks/demo-osdisk" -> null
     - name
                              = "demo-osdisk" -> null
                                    = "Standard_LRS" -> null
      - storage_account_type
      - write_accelerator_enabled
                                     = false -> null
       # (3 unchanged attributes hidden)
  }
 # azurerm_managed_disk.main_data_disk will be destroyed
 - resource "azurerm_managed_disk" "main_data_disk" {
                               = "Empty" -> null
   - create option
   disk_iops_read_only
                                 = 0 -> null
                                 = 500 -> null
   disk_iops_read_write
   disk_mbps_read_only
                                   = 0 -> null
   - disk_mbps_read_write
                                   = 60 -> null
                              = 64 -> null
   - disk size ab
                          = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Compute/disks/demo-datadisk" -> null
                            = "eastus" -> null

    location
```

```
- max_shares
                               = 0 -> null
   - name
                            = "demo-datadisk" -> null
   - network access policy
                                   = "AllowAll" -> null
   - on demand bursting enabled
                                       = false -> null
   - optimized_frequent_attach_enabled = false -> null
   - performance_plus_enabled
                                     = false -> null
   - public network access enabled = true -> null
                                   = "Azuredevops" -> null
   resource_group_name
   - storage_account_type
                                   = "Standard_LRS" -> null
                           = \{\} \rightarrow \text{null}
   - tags
   - trusted launch enabled
                                   = false -> null
   - upload_size_bytes
                                 = 0 -> null
    # (14 unchanged attributes hidden)
  }
 # azurerm_network_interface.main_nic will be destroyed
 - resource "azurerm_network_interface" "main_nic" {
   - accelerated networking enabled = false -> null
                                = ∏ -> null
   - applied dns servers
   dns_servers
                             = ∏ -> null
                        = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
   - id
resourceGroups/Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic" ->
null
   - internal_domain_name_suffix = "vjpb0fsv2l3u1kbjiwp0bumrpf.bx.internal.cloudapp.net"
-> null
   - ip forwarding enabled
                                 = false -> null
   - location
                          = "eastus" -> null
                              = "00-0D-3A-8C-26-44" -> null
   mac_address
                          = "demo-nic" -> null
   - name
   - private_ip_address
                               = "10.0.1.4" -> null
   private_ip_addresses
                                = [
      - "10.0.1.4",
    1 -> null
   - resource group name
                                  = "Azuredevops" -> null
                         = \{\} -> null
   - tags
                               = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
   - virtual machine id
resourceGroups/Azuredevops/providers/Microsoft.Compute/virtualMachines/demo-vm" -> null
    # (4 unchanged attributes hidden)
   - ip configuration {
                                         = "internal" -> null
      - name
      - primary
                                         = true -> null
                                              = "10.0.1.4" -> null
      private_ip_address
      - private ip address allocation
                                                  = "Dynamic" -> null
                                                 = "IPv4" -> null
      - private_ip_address_version
                                          = "/subscriptions/456cc604-544c-45f8-99d0-

    subnet id

c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/virtualNetworks/
demo-vnet/subnets/demo-subnet" -> null
       # (2 unchanged attributes hidden)
  }
 # azurerm network interface backend address pool association.main nic lb assoc will be
```

destroyed

```
- resource "azurerm_network_interface_backend_address_pool_association"
"main_nic_lb_assoc" {
   - backend address pool id = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb/
backendAddressPools/demo-bepool" -> null
                    = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic/
ipConfigurations/internall/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb/
backendAddressPools/demo-bepool" -> null
   - ip_configuration_name = "internal" -> null
   - network_interface_id = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic" ->
null
  }
 # azurerm_network_security_group.main_nsg will be destroyed
 - resource "azurerm network security group" "main nsg" {
                 = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/networkSecurityGroups/demo-
nsg" -> null
                   = "eastus" -> null
   - location
                   = "demo-nsg" -> null
   - name
   - resource_group_name = "Azuredevops" -> null
   security_rule
                     = [
     - {
                                      = "Allow"
        - access
        - destination_address_prefix
        - destination address prefixes
        - destination_application_security_group_ids = []
                                            = "80"
        destination_port_range
        destination_port_ranges
                                            = [
                                      = "Inbound"
        - direction
                                      = "Allow-HTTP-From-LB"
        - name
        - priority
                                     = 200
                                      = "Tcp"
        - protocol
        source_address_prefix
                                            = "AzureLoadBalancer"
        - source_address_prefixes
        - source_application_security_group_ids
                                                  = П
        - source port range
        source_port_ranges
                                           = [
         # (1 unchanged attribute hidden)
       },
     - {
                                      = "Allow"

    access

        - destination address prefix
                                             = "VirtualNetwork"
        - destination_address_prefixes
        destination_application_security_group_ids = []
        - destination_port_range
        destination_port_ranges
                                            = [
                                      = "Inbound"
        - direction
        - name
                                      = "Allow-VNet-Inbound"
        - priority
                                      = "*"
        - protocol
```

```
source_address_prefixes
                                              = П
        source_application_security_group_ids
                                                   = П
        - source_port_range
        source_port_ranges
                                            = [
         # (1 unchanged attribute hidden)
       },
                                       = "Allow"

    access

        - destination_address_prefix
                                              = "VirtualNetwork"
        destination_address_prefixes
        - destination_application_security_group_ids = []
        destination_port_range
        destination_port_ranges
                                             = [
                                       = "Outbound"
        - direction
                                       = "Allow-VNet-Outbound"
        - name
        - priority
                                      = 400
                                       = "*"
        - protocol
                                             = "VirtualNetwork"
        source_address_prefix
        source_address_prefixes
        source_application_security_group_ids
                                                   = П
        source_port_range
                                            = [
        source_port_ranges
         # (1 unchanged attribute hidden)
                                       = "Deny"

    access

        destination_address_prefix
        - destination address prefixes
        destination_application_security_group_ids = []
        destination_port_range
        destination_port_ranges
                                             = [
                                       = "Inbound"
        - direction
                                       = "Deny-Internet-Inbound"
        - name
        - priority
                                      = 100
        - protocol
        source_address_prefix
                                             = "Internet"
        source_address_prefixes
        - source_application_security_group_ids
                                                   = П

    source port range

        source_port_ranges
                                            = [
         # (1 unchanged attribute hidden)
       },
    ] -> null
                   = {} -> null
   - tags
 # azurerm_public_ip.main_public_ip will be destroyed
 - resource "azurerm_public_ip" "main_public_ip" {
                           = "Dynamic" -> null

    allocation_method

   - ddos protection mode = "VirtualNetworkInherited" -> null
                    = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/publicIPAddresses/demo-public-
ip" -> null
```

= "VirtualNetwork"

source\_address\_prefix

```
- idle_timeout_in_minutes = 4 -> null
   - ip tags
                     = {} -> null
   ip_version
                    = "IPv4" -> null

    location

                     = "eastus" -> null
                     = "demo-public-ip" -> null
   - name
   - resource_group_name = "Azuredevops" -> null
                   = "Basic" -> null
   - sku
   sku_tier
                     = "Regional" -> null
   tags
                    = \{\} -> null
                     = [] -> null
   - zones
    # (2 unchanged attributes hidden)
 # azurerm_subnet.main_subnet will be destroyed
 - resource "azurerm_subnet" "main_subnet" {
   - address_prefixes
                                      = [
     - "10.0.1.0/24",
    ] -> null
   - default_outbound_access_enabled
                                              = true -> null
                                = "/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/virtualNetworks/
demo-vnet/subnets/demo-subnet" -> null
                                  = "demo-subnet" -> null
   - name
   - private endpoint network policies
                                             = "Disabled" -> null
   - private_link_service_network_policies_enabled = true -> null
   - resource group name
                                        = "Azuredevops" -> null
   service_endpoint_policy_ids
                                          - service_endpoints
                                       = [] -> null
                                        = "demo-vnet" -> null
   - virtual network name
 # azurerm_subnet_network_security_group_association.main_assoc will be destroyed
 - resource "azurerm subnet network security group association" "main assoc" {
                    = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/virtualNetworks/demo-vnet/
subnets/demo-subnet" -> null
   - network security group id = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/networkSecurityGroups/demo-
nsg" -> null
                        = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
   - subnet id
resourceGroups/Azuredevops/providers/Microsoft.Network/virtualNetworks/demo-vnet/
subnets/demo-subnet" -> null
 # azurerm_virtual_machine_data_disk_attachment.main_data_disk_attach will be destroyed
 - resource "azurerm_virtual_machine_data_disk_attachment" "main_data_disk_attach" {
   - caching
                       = "ReadWrite" -> null
                         = "Attach" -> null
   create_option
                    = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Compute/virtualMachines/demo-vm/
dataDisks/demo-datadisk" -> null
                     = 0 -> \text{null}
                           = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
   - managed disk id
resourceGroups/Azuredevops/providers/Microsoft.Compute/disks/demo-datadisk" -> null
```

```
= "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
   - virtual_machine_id
resourceGroups/Azuredevops/providers/Microsoft.Compute/virtualMachines/demo-vm" -> null
   - write accelerator enabled = false -> null
 # azurerm_virtual_network.main_vnet will be destroyed
 - resource "azurerm virtual network" "main vnet" {
   - address space
      - "10.0.0.0/16",
    ] -> null
   - dns servers
                            = ∏ -> null
   - flow timeout in minutes
                                  = 0 -> null
                         = "161d5eaa-e255-4dfb-a829-459fa0d1917d" -> null
   - guid
   - id
                        = "/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/
resourceGroups/Azuredevops/providers/Microsoft.Network/virtualNetworks/demo-vnet" -> null

    location

                          = "eastus" -> null
                          = "demo-vnet" -> null
   - name
   - private endpoint vnet policies = "Disabled" -> null
                                  = "Azuredevops" -> null
   - resource_group_name
   - subnet
      - {

    address_prefixes

                                            = [
          - "10.0.1.0/24",
        - default_outbound_access_enabled
                                                     = true
        - delegation
                                          = Π
        - id
                                      = "/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/virtualNetworks/
demo-vnet/subnets/demo-subnet"
                                         = "demo-subnet"
        - name
        - private_endpoint_network_policies
                                                   = "Disabled"
        - private_link_service_network_policies_enabled = true
        - security group
                                           = "/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/
networkSecurityGroups/demo-nsg"
        - service_endpoint_policy_ids
                                                = \Pi
        - service endpoints
                                             = Π
         # (1 unchanged attribute hidden)
       },
    ] -> null
                         = \{\} -> null
   - tags
    # (2 unchanged attributes hidden)
Plan: 0 to add, 0 to change, 13 to destroy.
Do you really want to destroy all resources?
 Terraform will destroy all your managed infrastructure, as shown above.
 There is no undo. Only 'yes' will be accepted to confirm.
 Enter a value: yes
azurerm_network_interface_backend_address_pool_association.main_nic_lb_assoc:
Destroying... [id=/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/
```

```
Azuredevops/providers/Microsoft.Network/networkInterfaces/demo-nic/ipConfigurations/
internall/subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/
Azuredevops/providers/Microsoft.Network/loadBalancers/demo-lb/backendAddressPools/
demo-bepool]
azurerm_subnet_network_security_group_association.main_assoc: Destroying... [id=/
subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/
providers/Microsoft.Network/virtualNetworks/demo-vnet/subnets/demo-subnet]
azurerm virtual machine data disk attachment.main data disk attach: Destroying... [id=/
subscriptions/456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/
providers/Microsoft.Compute/virtualMachines/demo-vm/dataDisks/demo-datadisk]
azurerm network interface backend address pool association.main nic lb assoc:
Destruction complete after 4s
azurerm lb backend address pool.main bepool: Destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/loadBalancers/demo-lb/backendAddressPools/demo-bepool]
azurerm_subnet_network_security_group_association.main_assoc: Destruction complete after
azurerm network security group.main nsg: Destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Network/networkSecurityGroups/demo-nsql
azurerm_virtual_machine_data_disk_attachment.main_data_disk_attach: Destruction complete
azurerm_managed_disk.main_data_disk: Destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Compute/disks/demo-datadiskl
azurerm linux virtual machine.main vm: Destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/
Microsoft.Compute/virtualMachines/demo-vm]
azurerm lb backend address pool.main bepool: Destruction complete after 5s
azurerm lb.main lb: Destroying... [id=/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/loadBalancers/
demo-lb]
azurerm_network_security_group.main_nsg: Still destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-...Network/networkSecurityGroups/demo-nsg, 00m10s elapsed]
azurerm network security group.main nsg: Destruction complete after 11s
azurerm_managed_disk.main_data_disk: Still destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-.../Microsoft.Compute/disks/demo-datadisk, 00m10s elapsed
azurerm_linux_virtual_machine.main_vm: Still destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-...rosoft.Compute/virtualMachines/demo-vm, 00m10s elapsed]
azurerm lb.main lb: Still destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-...icrosoft.Network/loadBalancers/demo-lb, 00m10s elapsed]
azurerm managed disk.main data disk: Destruction complete after 11s
azurerm_lb.main_lb: Destruction complete after 11s
azurerm public ip.main public ip: Destroying... [id=/subscriptions/456cc604-544c-45f8-99d0-
c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/publicIPAddresses/
demo-public-ipl
azurerm linux virtual machine.main vm: Still destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-...rosoft.Compute/virtualMachines/demo-vm, 00m20s elapsed
azurerm_public_ip.main_public_ip: Still destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-...twork/publicIPAddresses/demo-public-ip, 00m10s elapsed]
azurerm public ip.main public ip: Destruction complete after 11s
azurerm linux virtual machine.main vm: Still destroying... [id=/subscriptions/
456cc604-544c-45f8-99d0-...rosoft.Compute/virtualMachines/demo-vm, 00m30s elapsed]
azurerm_linux_virtual_machine.main_vm: Destruction complete after 33s
```

azurerm\_availability\_set.main\_avset: Destroying... [id=/subscriptions/ 456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/ Microsoft.Compute/availabilitySets/demo-avset] azurerm network interface.main nic: Destroying... [id=/subscriptions/ 456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/ Microsoft.Network/networkInterfaces/demo-nic] azurerm availability set.main avset: Destruction complete after 1s azurerm network interface.main nic: Still destroying... [id=/subscriptions/ 456cc604-544c-45f8-99d0-...oft.Network/networkInterfaces/demo-nic, 00m10s elapsed] azurerm\_network\_interface.main\_nic: Destruction complete after 12s azurerm\_subnet.main\_subnet: Destroying... [id=/subscriptions/456cc604-544c-45f8-99d0c1b73aeec440/resourceGroups/Azuredevops/providers/Microsoft.Network/virtualNetworks/ demo-vnet/subnets/demo-subnet] azurerm\_subnet.main\_subnet: Still destroying... [id=/subscriptions/ 456cc604-544c-45f8-99d0-...Networks/demo-vnet/subnets/demo-subnet, 00m10s elapsed] azurerm\_subnet.main\_subnet: Destruction complete after 10s azurerm\_virtual\_network.main\_vnet: Destroying... [id=/subscriptions/ 456cc604-544c-45f8-99d0-c1b73aeec440/resourceGroups/Azuredevops/providers/ Microsoft.Network/virtualNetworks/demo-vnetl azurerm virtual network.main vnet: Still destroying... [id=/subscriptions/ 456cc604-544c-45f8-99d0-...soft.Network/virtualNetworks/demo-vnet, 00m10s elapsed] azurerm\_virtual\_network.main\_vnet: Destruction complete after 11s

Destroy complete! Resources: 13 destroyed. pjsaha@web-svr:~/laC/terraform-template\$