|  |
| --- |
| terraform { |
|  | required\_providers { |
|  | azurerm = { source = "hashicorp/azurerm" |
|  | version = "2.68.0" |
|  | } |
|  | } |
|  | } |
|  |  |
|  | provider "azurerm" { |
|  |  |
|  | features {} |
|  | }  variable "vmname1" { |
|  | type = string |
|  | default = "HA-webserver1" |
|  | } |
|  | variable "vmname2" { |
|  | type = string |
|  | default = "HA-webserver2" |
|  | } |
|  |  |
|  | variable "jumpvmname" { |
|  | type = string |
|  | default = "jumphost1" |
|  | } |
|  |  |
|  | ## <https://www.terraform.io/docs/providers/azurerm/r/resource\_group.html> |
|  | resource "azurerm\_resource\_group" "rg" { |
|  | name = "SEA-RG" |
|  | location = "southeastasia" |
|  | } |
|  |  |
|  | ## <https://www.terraform.io/docs/providers/azurerm/r/availability\_set.html> |
|  | resource "azurerm\_availability\_set" "aset" { |
|  | name = "SEA-WEB-AS1" |
|  | location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | platform\_fault\_domain\_count = 2 |
|  | platform\_update\_domain\_count = 2 } |
|  | ## <https://www.terraform.io/docs/providers/azurerm/r/virtual\_network.html> |
|  | resource "azurerm\_virtual\_network" "vnet" { |
|  | name = "vent-SEA" address\_space = ["10.1.0.0/16"] location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | } |
|  |  |
|  | ## <https://www.terraform.io/docs/providers/azurerm/r/subnet.html> |
|  | resource "azurerm\_subnet" "subnet1" { |
|  | name = "SEAsubnet" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | virtual\_network\_name = azurerm\_virtual\_network.vnet.name |
|  | address\_prefixes = ["10.0.1.0/24"] |
|  | } |
|  |  |
|  | resource "azurerm\_subnet" "subnet2" { |
|  | name = "jumpsubnet" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | virtual\_network\_name = azurerm\_virtual\_network.vnet.name |
|  | address\_prefixes = ["10.0.2.0/24"] |
|  | } |
|  |  |
|  |  |
|  | resource "azurerm\_public\_ip" "jumppip" { |
|  | name = "jumphost1-ip" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | location = azurerm\_resource\_group.rg.location |
|  | allocation\_method = "Dynamic" |
|  |  |
|  | } |
|  |  |
|  |  |
|  | ## <https://www.terraform.io/docs/providers/azurerm/r/network\_interface.html> |
|  | resource "azurerm\_network\_interface" "nic1" { |
|  | name = "HA-webserver1-nic" |
|  | location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  |  |
|  | ip\_configuration { |
|  | name = "internal" |
|  | subnet\_id = azurerm\_subnet.subnet1.id |
|  | private\_ip\_address\_allocation = "Dynamic" |
|  | } |
|  | } |
|  |  |
|  | resource "azurerm\_network\_interface" "nic2" { |
|  | name = "HA-webserver2-nic" |
|  | location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | ip\_configuration { |
|  | name = "internal" |
|  | subnet\_id = azurerm\_subnet.subnet1.id |
|  | private\_ip\_address\_allocation = "Dynamic" |
|  |  |
|  | } |
|  | } |
|  |  |
|  | resource "azurerm\_network\_interface" "jumpnic" { |
|  | name = "jumphost1-nic" |
|  | location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | ip\_configuration { |
|  | name = "internal" |
|  | subnet\_id = azurerm\_subnet.subnet2.id |
|  | private\_ip\_address\_allocation = "Dynamic" |
|  | public\_ip\_address\_id = azurerm\_public\_ip.jumppip.id |
|  | } |
|  | } |
|  |  |
|  |  |
|  | resource "azurerm\_network\_security\_group" "seawebnsg" { |
|  | name = "SEA-WEB-NSG" |
|  | location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  |  |
|  | security\_rule { |
|  | name = "HTTP" |
|  | priority = 100 |
|  | direction = "Inbound" |
|  | access = "Allow" |
|  | protocol = "Tcp" |
|  | source\_port\_range = "\*" |
|  | destination\_port\_range = "80" |
|  | source\_address\_prefix = "\*" |
|  | destination\_address\_prefix = "\*" |
|  | } |
|  | security\_rule { |
|  | name = "RDP" |
|  | priority = 1100 |
|  | direction = "Inbound" |
|  | access = "Allow" |
|  | protocol = "Tcp" |
|  | source\_port\_range = "\*" |
|  | destination\_port\_range = "22" |
|  | source\_address\_prefix = "\*" |
|  | destination\_address\_prefix = "\*" |
|  | } |
|  |  |
|  | } |
|  | resource "azurerm\_network\_security\_group" "jumpnsg" { |
|  | name = "Jump-SEA-NSG" |
|  | location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  |  |
|  | security\_rule { |
|  | name = "RDP" |
|  | priority = 1000 |
|  | direction = "Inbound" access = "Allow" |
|  | protocol = "Tcp" |
|  | source\_port\_range = "\*" |
|  | destination\_port\_range = "3389" |
|  | source\_address\_prefix = "\*" |
|  | destination\_address\_prefix = "\*" |
|  | } |
|  |  |
|  |  |
|  | } |
|  |  |
|  |  |
|  | #VM Creation |
|  | resource "azurerm\_linux\_virtual\_machine" "vm1" { |
|  | name = "HA-webserver1" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | location = azurerm\_resource\_group.rg.location |
|  | size = "Standard\_B1s" |
|  | admin\_username = "vmadmin" |
|  | admin\_password = "Xendesktop@123" |
|  | availability\_set\_id = azurerm\_availability\_set.aset.id |
|  | network\_interface\_ids = [ azurerm\_network\_interface.nic1.id, |
|  | ] |
|  | disable\_password\_authentication = false |
|  |  |
|  | os\_disk { |
|  | caching = "ReadWrite" |
|  | storage\_account\_type = "Standard\_LRS" |
|  | } |
|  |  |
|  | source\_image\_reference { |
|  | publisher = "Canonical" |
|  | offer = "Ubuntuserver" |
|  | sku = "18.04-LTS" |
|  | version = "latest" |
|  | } |
|  |  |
|  | } |
|  |  |
|  | resource "azurerm\_linux\_virtual\_machine" "vm2" { |
|  | name = var.vmname2 |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | location = azurerm\_resource\_group.rg.location |
|  | size = "Standard\_B1s" |
|  | admin\_username = "vmadmin" |
|  | admin\_password = "Xendesktop@123" |
|  | availability\_set\_id = azurerm\_availability\_set.aset.id |
|  | network\_interface\_ids = [ |
|  | azurerm\_network\_interface.nic2.id, |
|  | ] |
|  | disable\_password\_authentication = false |
|  |  |
|  | os\_disk { |
|  | caching = "ReadWrite" |
|  | storage\_account\_type = "Standard\_LRS" |
|  | } |
|  |  |
|  | source\_image\_reference { |
|  | publisher = "Canonical" |
|  | offer = "Ubuntuserver" |
|  | sku = "18.04-LTS" |
|  | version = "latest" |
|  | } |
|  | } |
|  | resource "azurerm\_windows\_virtual\_machine" "jumphost1" { |
|  | name = var.jumphost1 |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | location = azurerm\_resource\_group.rg.location |
|  | size = "Standard\_B1s" |
|  | admin\_username = "vmadmin" |
|  | admin\_password = "Xendesktop@123" |
|  |  |
|  | network\_interface\_ids = [ |
|  | azurerm\_network\_interface.jumpnic.id, |
|  | ] |
|  |  |
|  |  |
|  | os\_disk { |
|  | caching = "ReadWrite" |
|  | storage\_account\_type = "Standard\_LRS" |
|  | } |
|  |  |
|  | source\_image\_reference { |
|  | publisher = "MicrosoftWindowsServer" |
|  | offer = "WindowsServer" |
|  | sku = "2019-Datacenter" |
|  | version = "latest" |
|  | } |
|  | } |
|  |  |
|  | resource "azurerm\_network\_interface\_security\_group\_association" "webserver1" { |
|  | network\_interface\_id = azurerm\_network\_interface.nic1.id |
|  | network\_security\_group\_id = azurerm\_network\_security\_group.seawebnsg.id |
|  | } |
|  | resource "azurerm\_network\_interface\_security\_group\_association" "webserver2" { |
|  | network\_interface\_id = azurerm\_network\_interface.nic2.id |
|  | network\_security\_group\_id = azurerm\_network\_security\_group.seawebnsg.id |
|  | } |
|  | resource "azurerm\_network\_interface\_security\_group\_association" "jumphost1" { |
|  | network\_interface\_id = azurerm\_network\_interface.jumpnic.id |
|  | network\_security\_group\_id = azurerm\_network\_security\_group.jumpnsg.id |
|  | } |
|  |  |
|  |  |
|  | resource "azurerm\_public\_ip" "lbpip" { |
|  | name = "sea-lb-pip" |
|  | location = "southeastasia" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | allocation\_method = "Static" |
|  | sku = "Standard" |
|  | } |
|  |  |
|  | resource "azurerm\_lb" "lb1" { |
|  | name = "sea-lb1" |
|  | location = "southeastasia" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | sku = "Standard" |
|  | frontend\_ip\_configuration { |
|  | name = "Frontend-IP" |
|  | public\_ip\_address\_id = azurerm\_public\_ip.lbpip.id |
|  | } |
|  |  |
|  | } |
|  | resource "azurerm\_lb\_backend\_address\_pool" "lbbp1" { |
|  | loadbalancer\_id = azurerm\_lb.lb1.id |
|  | name = "BackEndAddressPool" |
|  | } |
|  |  |
|  |  |
|  | resource "azurerm\_lb\_backend\_address\_pool\_address" "lbbpaddress" { |
|  | name = "lbbeaddresspool" |
|  | backend\_address\_pool\_id = resource.azurerm\_lb\_backend\_address\_pool.lbbp1.id |
|  | virtual\_network\_id = resource.azurerm\_virtual\_network.vnet.id |
|  | ip\_address = "10.0.1.0" |
|  | } |
|  |  |
|  | resource "azurerm\_lb\_backend\_address\_pool\_address" "lbbpaddress2" { |
|  | name = "lbbeaddresspool2" |
|  | backend\_address\_pool\_id = resource.azurerm\_lb\_backend\_address\_pool.lbbp1.id |
|  | virtual\_network\_id = resource.azurerm\_virtual\_network.vnet.id |
|  | ip\_address = "10.0.1.5" |
|  | #ip\_address = "10.0.1.6" |
|  | } |
|  |  |
|  | resource "azurerm\_lb\_probe" "lbhp" { |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | loadbalancer\_id = azurerm\_lb.lb1.id |
|  | name = "hpb1" |
|  | port = 80 |
|  | } |
|  | resource "azurerm\_lb\_rule" "lbrule" { |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | loadbalancer\_id = azurerm\_lb.lb1.id |
|  | name = "sea-lb1" |
|  | protocol = "Tcp" |
|  | frontend\_port = 80 |
|  | backend\_port = 80 |
|  | frontend\_ip\_configuration\_name = "Frontend-IP" |
|  | load\_distribution = "SourceIP" |
|  | backend\_address\_pool\_id = resource.azurerm\_lb\_backend\_address\_pool.lbbp1.id |
|  | probe\_id = azurerm\_lb\_probe.lbhp.id |
|  | } |
|  |  |
|  |  |
|  | resource "azurerm\_storage\_account" "storage" { |
|  | name = "seastroageact" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | location = azurerm\_resource\_group.rg.location |
|  | account\_tier = "Standard" |
|  | account\_replication\_type = "GRS" |
|  | enable\_https\_traffic\_only = true |
|  | } |
|  |  |
|  | resource "azurerm\_recovery\_services\_vault" "rsv" { |
|  | name = "sea-vmbackupvault" location = azurerm\_resource\_group.rg.location |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | sku = "Standard" |
|  | soft\_delete\_enabled = false |
|  | } |
|  |  |
|  | resource "azurerm\_backup\_policy\_vm" "bckpolicy" { |
|  | name = "defaultpolicy" |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | recovery\_vault\_name = azurerm\_recovery\_services\_vault.rsv.name |
|  |  |
|  | timezone = "UTC" |
|  |  |
|  | backup { |
|  | frequency = "Daily" |
|  | time = "13:00" |
|  | } |
|  |  |
|  | retention\_daily { |
|  | count = 10 |
|  | } |
|  |  |
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|  |  |
|  | resource "azurerm\_backup\_protected\_vm" "vm1" { |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | recovery\_vault\_name = azurerm\_recovery\_services\_vault.rsv.name |
|  | source\_vm\_id = azurerm\_linux\_virtual\_machine.vm1.id |
|  | backup\_policy\_id = azurerm\_backup\_policy\_vm.bckpolicy.id |
|  | } |
|  |  |
|  | resource "azurerm\_backup\_protected\_vm" "vm2" { |
|  | resource\_group\_name = azurerm\_resource\_group.rg.name |
|  | recovery\_vault\_name = azurerm\_recovery\_services\_vault.rsv.name |
|  | source\_vm\_id = azurerm\_linux\_virtual\_machine.vm2.id |
|  | backup\_policy\_id = azurerm\_backup\_policy\_vm.bckpolicy.id |
|  | } |