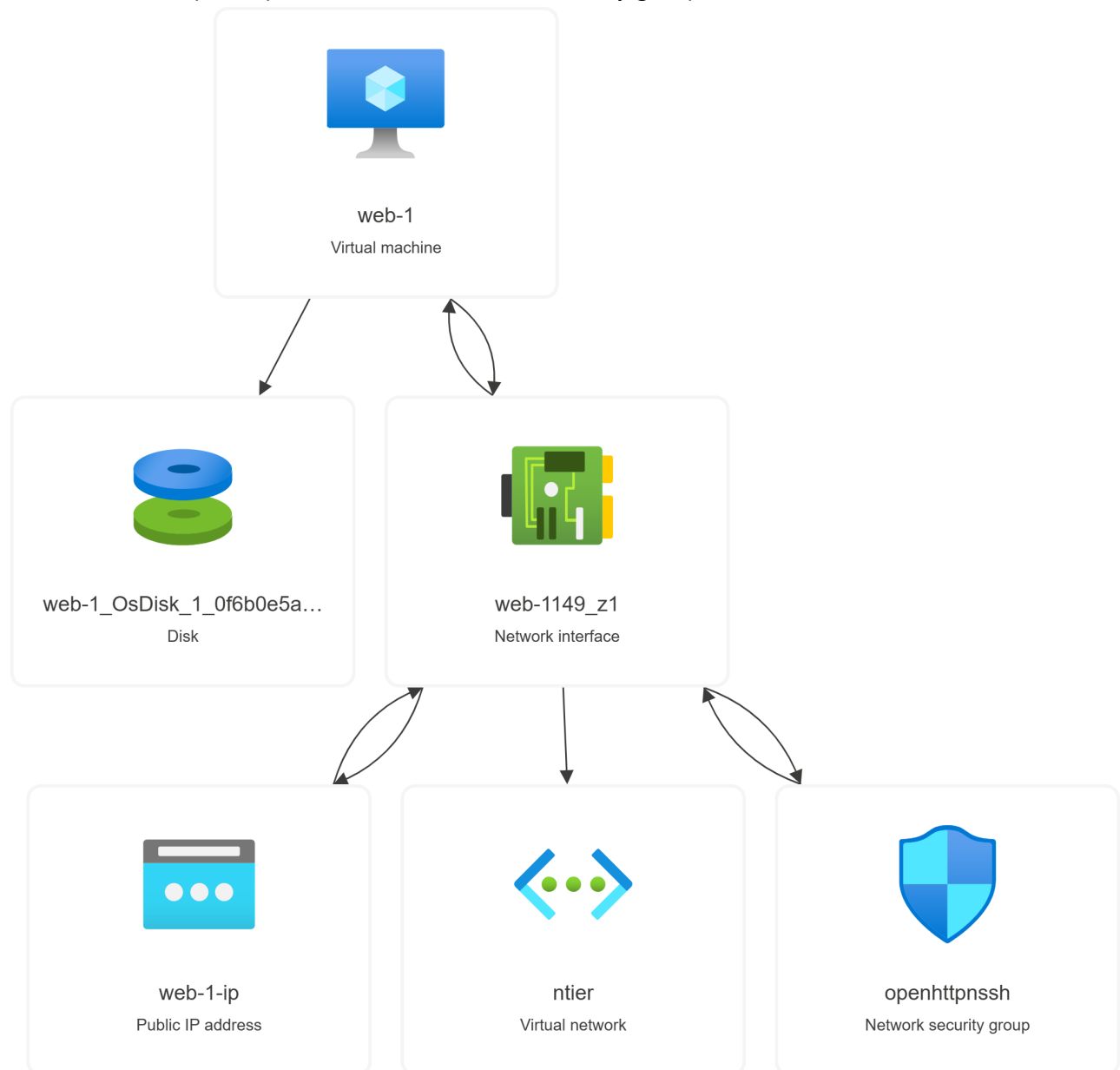


# Terraform contd..

---

## Azure virtual machine in the virtual network

- We have created publicip, network and network security group



- Lets create a network interface and associate with nsg [Refer Here](#) for the changes done

The top screenshot shows the 'webnic | Network security group' page in the Azure portal. The 'Network security group' dropdown menu is set to 'webnsg'. The left sidebar shows the 'Network security group' option highlighted under the 'Settings' section.

The bottom screenshot shows the 'webnic | IP configurations' page. The 'Subnet' dropdown menu is set to 'web (192.168.0.0/24) 250 free IP addresses'. The left sidebar shows the 'IP configurations' option highlighted under the 'Settings' section.

Name	IP Version	Type	Private IP Address	Public IP Address
<input type="checkbox"/> web	IPv4	Primary	192.168.0.4 (Dynamic)	13.92.82.30 (web)

## Finding Azure VM Image

- To find the virtual machine in Azure we use
  - publisher: Generally organization publishing images
  - offer: specification of offering
  - sku: variant
  - version: version of the image

- The image id/urn is `publisher:offer:sku:version`

```

Windows PowerShell
You are viewing an offline list of images, use --all to retrieve an up-to-date list
[
  {
    "architecture": "x64",
    "offer": "CentOS",
    "publisher": "OpenLogic",
    "sku": "8_5-gen2",
    "urn": "OpenLogic:CentOS:8_5-gen2:latest",
    "urnAlias": "CentOS85Gen2",
    "version": "latest"
  },
  {
    "architecture": "x64",
    "offer": "debian-11",
    "publisher": "Debian",
    "sku": "11-backports-gen2",
    "urn": "Debian:debian-11:11-backports-gen2:latest",
    "urnAlias": "Debian11",
    "version": "latest"
  },
  {
    "architecture": "x64",
    "offer": "flatcar-container-linux-free",
    "publisher": "kinvolk",
    "sku": "stable-gen2",
    "urn": "kinvolk:flatcar-container-linux-free:stable-gen2:latest",
    "urnAlias": "FlatcarLinuxFreeGen2",
    "version": "latest"
  },
  {
    "architecture": "x64",
    "offer": "openSUSE-leap-15-4",
    "publisher": "SUSE",
    "sku": "gen2",
    "urn": "SUSE:openSUSE-leap-15-4:gen2:latest",
    "urnAlias": "OpenSuseLeap154Gen2",
    "version": "latest"
  }
]

```

- [Refer Here](#) for the changes done to create a virtual machine.
- Exercise: Try creating a linux vm with username and password
- Now i want to install some website in virtual machine, lets do it manually

```

sudo apt update
sudo apt install nginx unzip -y
cd /tmp && wget https://www.free-css.com/assets/files/free-css-templates/download/page295/kider.zip
unzip /tmp/kider.zip
sudo mv /tmp/preschool-website-template /var/www/html/preschool

```

- To execute the above commands post linux vm creation we have two options
  - Terraform provisioning: [Refer Here](#)
  - Custom data or userdata in virtual machine
- The problem with custom data or user data is they are executed only once post creation. The user data option cannot be used if the script changes.

Terraform taint

- Taint if applied to a resource, will be recreated (deleted and created) during next terraform apply.

```
PS C:\khajaclassroom\devops\terraform\May24\azure\multi-region-ntier> terraform taint azurerm_linux_virtual_machine.web
Resource instance azurerm_linux_virtual_machine.web has been marked as tainted.
PS C:\khajaclassroom\devops\terraform\May24\azure\multi-region-ntier>
```

- Next steps:
  - We would need outputs
  - We will do the same in AWS.