

Step 1: Deploy a VM from the Previously Created Image

1. Log in to the Azure Portal:

- Go to the [Azure Portal](#) and sign in.

2. Create a New Virtual Machine from the Image:

- Click on "**Create a resource**" from the left-hand menu.
- In the "**Image**" section, select "**My Items**" to find your previously created image.
- Choose the image you created earlier.

The screenshot shows the configuration options for a new VM. It includes three dropdown menus: 'Availability zone' set to 'Zone 1', 'Security type' set to 'Standard', and 'Image' set to 'Myimage/ubuntu/latest - x64 Gen2'. Below the 'Image' dropdown, there are links for 'See all images' and 'Configure VM generation'.

Availability zone * ⓘ Zone 1

✔ You can now select multiple zones. Selecting multiple zones will create one VM per zone. [Learn more](#)

Security type ⓘ Standard

Image * ⓘ Myimage/ubuntu/latest - x64 Gen2

[See all images](#) | [Configure VM generation](#)

3. Configure the VM Basics:

- Fill in the required fields, such as **Subscription, Resource Group, VM Name, Region, Size, and Administrator Account** (same credentials as before, if applicable).

4. Configure Networking:

- Ensure the VM is attached to the correct virtual network and subnet.
- Ensure a Public IP is assigned.

5. Review + Create:

- Review your configurations and click "**Create**" to deploy the VM from the image. Wait for the deployment to complete.

Step 2: Open Port 80 in Network Security Group (NSG)

1. Go to the NSG:

- In the Azure Portal, navigate to "**Networking**" from the VM's left menu or search for "**Network Security Groups**" in the portal.

2. Select the NSG Associated with the VM:

- Find and select the NSG associated with your VM's network interface.

3. Add an Inbound Security Rule:

- Under **Settings**, click on **"Inbound security rules"**.
- Click **"Add"** to create a new rule.
 - **Source:** Any
 - **Source port ranges:** *
 - **Destination:** Any
 - **Destination port ranges:** 80
 - **Protocol:** TCP
 - **Action:** Allow
 - **Priority:** (set a priority number that fits within your existing rules, e.g., 1000)
 - **Name:** Give it a name, e.g., "Allow_HTTP"

4. Click on "Add" to create the rule.

The screenshot shows the Azure portal interface for a virtual machine named VM1. The left-hand navigation pane is open, showing various management options. The 'Settings' section is expanded, and the 'Network settings' option is selected. The main content area displays the 'Essentials' section for VM1, which includes information about the resource group, status, location, subscription, and tags. Below this, the 'Properties' tab is active, showing details for the virtual machine, including the computer name 'VM1', operating system 'Linux (ubuntu 24.04)', and public IP address '20.244.26.86'.

Step 3: Start the Apache 2 Service in the VM

1. Connect to the VM:

- Once the VM is running, connect to it using SSH (for Ubuntu) from your terminal:

2. Start the Apache 2 Service:

- Run the following commands to ensure Apache is running:

```
sudo systemctl start apache2
```

```
sudo systemctl enable apache2
```

```
Last login: Thu Sep 26 03:20:46 2024 from 103.148.8.242
azureuser@VM1:~$ sudo systemctl start apache2
sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
azureuser@VM1:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Thu 2024-09-26 04:46:35 UTC; 1min 13s ago
     Docs: https://httpd.apache.org/docs/2.4/
  Main PID: 1020 (apache2)
    Tasks: 55 (limit: 1064)
   Memory: 7.9M (peak: 8.1M)
      CPU: 48ms
   CGroup: /system.slice/apache2.service
           └─1020 /usr/sbin/apache2 -k start
             └─1021 /usr/sbin/apache2 -k start
               └─1022 /usr/sbin/apache2 -k start

Sep 26 04:46:32 VM1 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Sep 26 04:46:35 VM1 systemd[1]: Started apache2.service - The Apache HTTP Server.
azureuser@VM1:~$
```

Step 4: Verify Website Access

1. Open a Web Browser:

