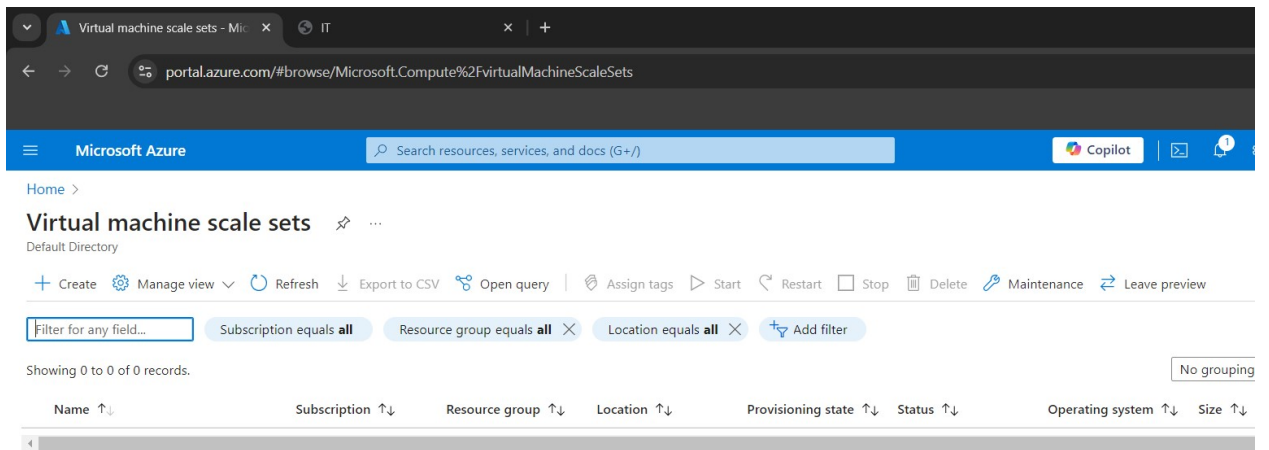
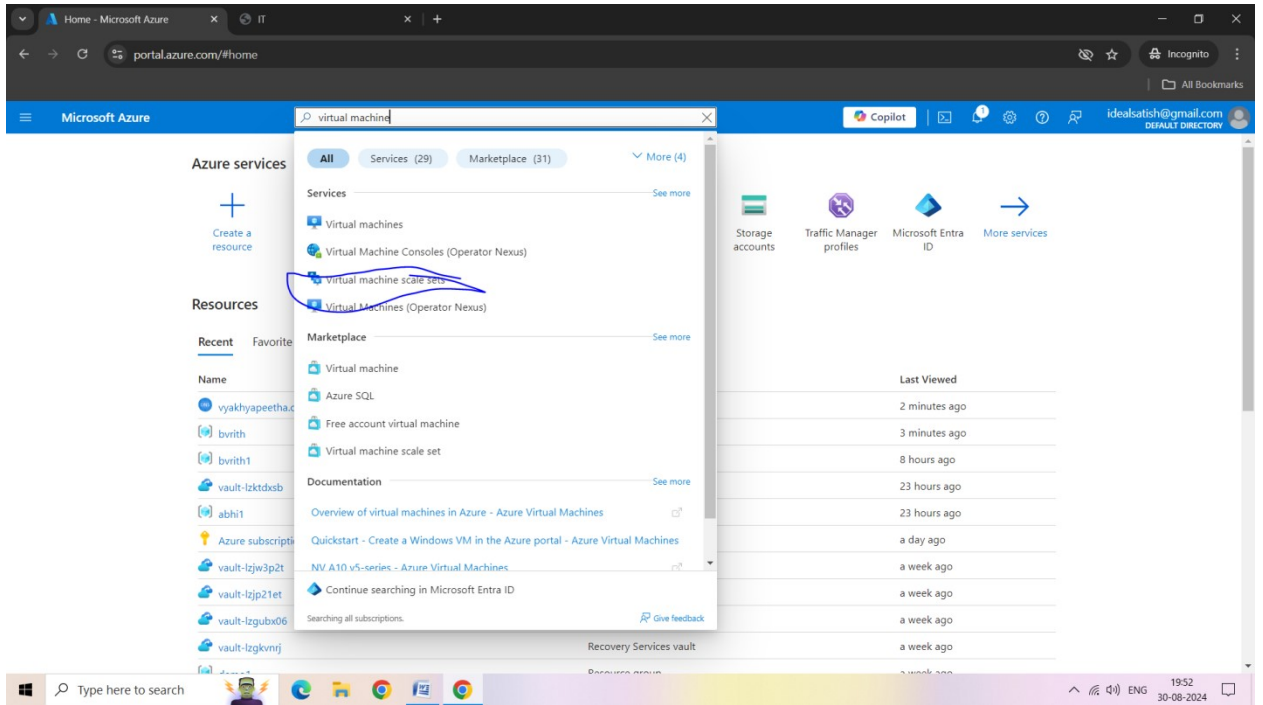


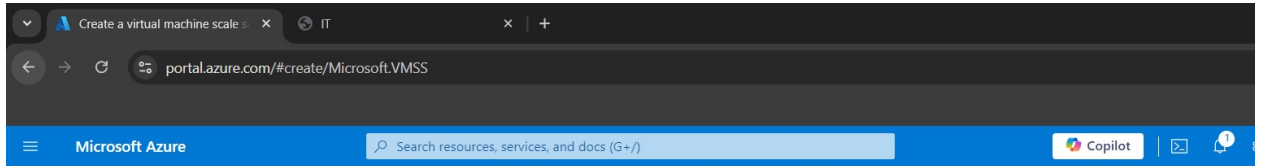
Portal.azure.com

ACTIVITY-7: Virtual Machine Scale Set

Open Virtual Machine Scale Sets



Click on Create Virtual Machine Scale Sets



Create a virtual machine scale set

[Basics](#) [Spot](#) [Disks](#) [Networking](#) [Management](#) [Health](#) [Advanced](#) [Tags](#) [Review + create](#)

Azure virtual machine scale sets let you create and manage a group of load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule. Scale sets provide high availability to your applications, and allow you to centrally manage, configure, and update a large number of VMs. [Learn more about virtual machine scale sets](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

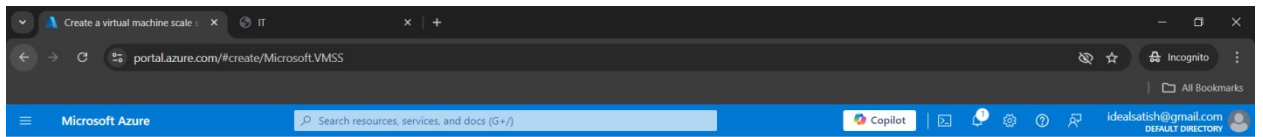
Subscription *

Resource group * [Create new](#)

Scale set details

Virtual machine scale set name *

Region *



Create a virtual machine scale set

- Autoscaling: Scaling based on a CPU metric, on any schedule.
- No scaling profile: manual attach virtual machines after deployment

Instance count * [Configure scaling options](#)

Instance details

Image * [See all images](#) [Configure VM generation](#)

VM architecture Arm64 x64

Run with Azure Spot discount

Size * [See all sizes](#)

Enable Hibernation
Hibernate does not currently support Trusted launch and Confidential virtual machines for Linux images. [Learn more](#)

[Previous](#) [Next: Spot](#) [Review + create](#)

[Give feedback](#)



Home > Virtual machine scale sets >

Create a virtual machine scale set

NAME	CREATE PUBLI...	SUBNET	NETWORK SECU...	ACCELERATED N...
<input type="checkbox"/> bvrith1vnet948-nic01	Yes	default (10.1.0.0/20)	Basic	On

Load balancing

You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more](#)

Load balancing options

- None
- Azure load balancer
Supports all TCP/UDP network traffic, port-forwarding, and outbound flows.
- Application gateway
Web traffic load balancer for HTTP/HTTPS with URL-based routing, SSL termination, session persistence, and web application firewall.

⚠ To allow traffic from your load balancing product, please update the appropriate port configuration on your network security group associated with your network interface.

Select a load balancer *

Click on load balancer

Home > Virtual machine scale sets >

Create a virtual machine scale set

NAME	CREATE PUBLI...	SUBNET	NETWORK SECU...	ACCELERATED N...
<input type="checkbox"/> bvrith1vnet948-nic01	Yes	default (10.1.0.0/20)	Basic	On

Load balancing

You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more](#)

Load balancing options

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Web traffic load balancer for HTTP/HTTPS with URL-based routing, SSL termination, session persistence, and web application firewall.

⚠ To allow traffic from your load balancing product, please update the appropriate port configuration on your network security group associated with your network interface.

Select a load balancer *

Create a load balancer

Details such as subscription and resource group that you're creating. A default IP, backend pool, and other configurations can be configured on your behalf, though certain configurations cannot.

Load balancer name *

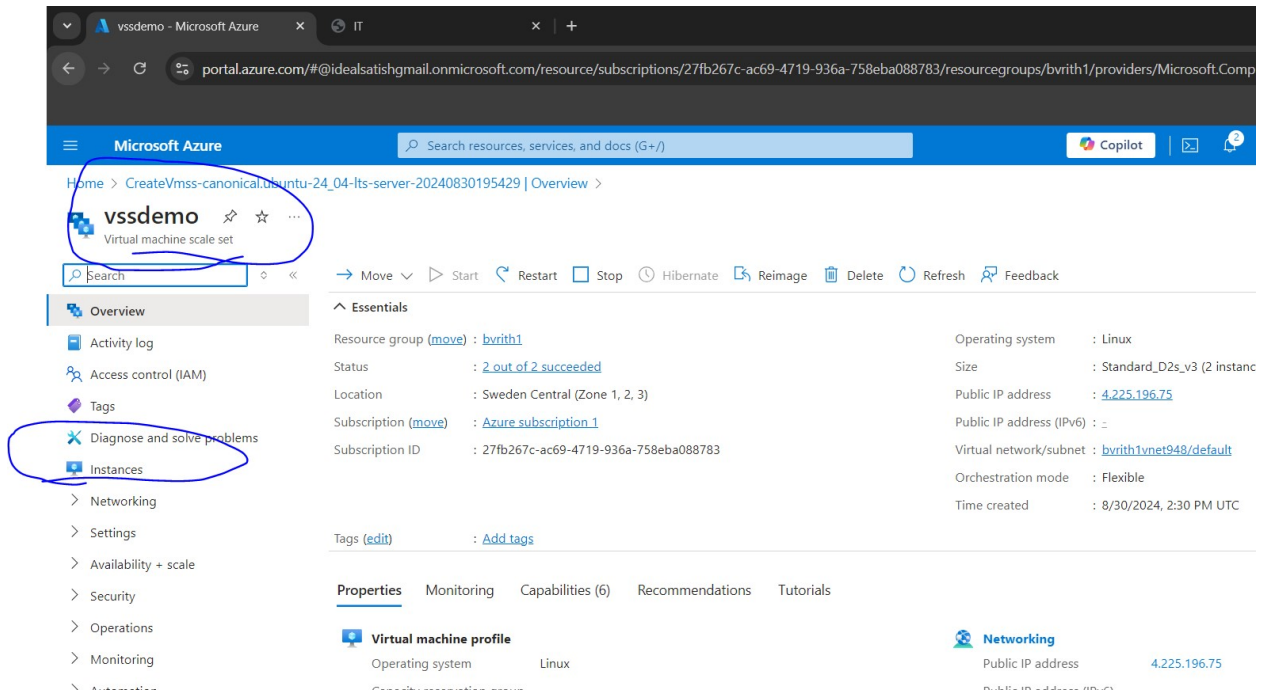
Type *

Protocol *

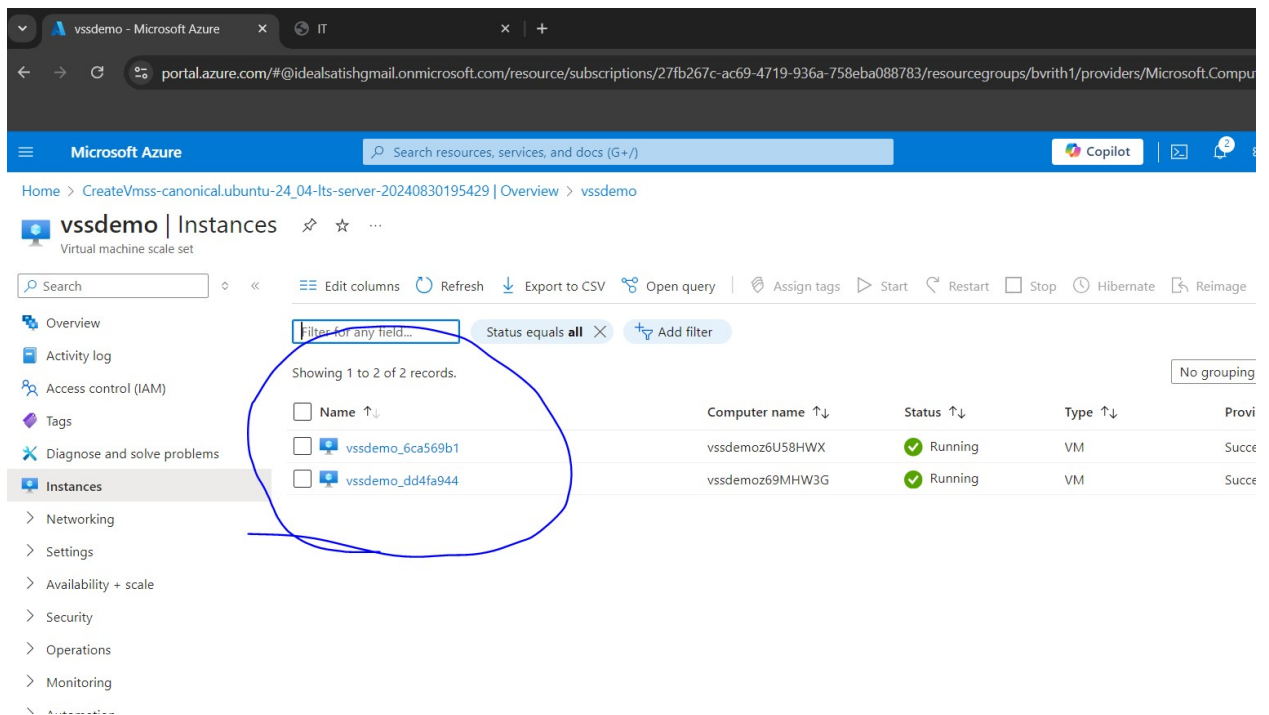
Enter the Name and Click Create of load balancer.

Click Review + Create

Go to the Virtual Machine Scale Set which was created.



Click on Instances



As the Instance Count which we have entered while creating based on the count the instances are created

Go to Networking

The screenshot shows the Microsoft Azure portal interface. The main content area displays the 'Instances' page for a Virtual Machine Scale Set named 'vssdemo'. The left-hand navigation menu is visible, with the 'Networking' section expanded and 'Network settings' highlighted with a blue circle. The main content area shows a table of instances with columns for Name, Computer name, Status, Type, and Provisioning state. Two instances are listed, both with a status of 'Running'.

Name	Computer name	Status	Type	Provi
vssdemo_6ca569b1	vssdemoz6U58HWX	Running	VM	Succ
vssdemo_dd4fa944	vssdemoz69MHW3G	Running	VM	Succ

Add HTTP and SSH by clicking on Create port rule

The screenshot shows the Microsoft Azure portal interface, specifically the 'Network settings' page for a Virtual Machine Scale Set named 'vssdemo'. The left-hand navigation menu is visible, with 'Network settings' highlighted. The main content area displays the 'Network security group basicNsgbvrith1vnet948-nic01' and a table of 'Inbound port rules'. The 'HTTP' and 'SSH' rules are highlighted with a blue circle.

Priority	Name	Port	Protocol	Source	Destinac
100	HTTP	80	TCP	Any	Any
110	SSH	22	TCP	Any	Any
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNE
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any
65500	DenyAllInBound	Any	Any	Any	Any

Go to Instances and Click on **first instance**, copy the public ip address

Connect through SSH, using the IP address and do the following

Sudo apt update

Sudo apt install apache2 -y

```
dell@vssdemoz6U58HWX: ~
Usage of /:  5.0% of 28.02GB  Users logged in:  0
Memory usage: 3%             IPv4 address for eth0: 10.1.0.5
Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
```

Go to Instances and Click on **Second instance**, copy the public ip address

Connect through SSH, using the IP address and do the following

Sudo apt update

Sudo apt install apache2 -y

Now Go to First Instance and copy Public IP address in the browser

The screenshot shows the Azure portal interface for a virtual machine. The breadcrumb navigation is 'Home > vssdemo | Instances > vssdemo_6ca569b1'. The VM is identified as 'vssdemo_6ca569b1' and is a 'Virtual machine'. The 'Essentials' section displays the following information:

- Resource group (move): [bvrith1](#)
- Status: Running
- Location: Sweden Central (Zone 2)
- Subscription (move): [Azure_subscription_1](#)
- Subscription ID: 27fb267c-ac69-4719-936a-758eba088783
- Availability zone: 2
- Tags (edit): VirtualMachineProfileTimeCreated : 8/30/2024 2:30:01 PM +00:00

The 'Properties' section shows the following details:

- Operating system: Linux (ubuntu 24.04)
- Size: Standard_B1s
- Public IP address: [74.241.129.49](#) (Copied)
- Virtual network/subnet: [bvrith1vnet948/default](#)
- DNS name: [Not configured](#)
- Health state: -
- Time created: 8/30/2024, 2:30 PM UTC

The left-hand navigation menu includes: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, and Operations.

The screenshot shows a web browser window with the address bar displaying 'Not secure 74.241.129.49'. The page content is as follows:

Apache2 Default Page

Ubuntu

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/  
|-- apache2.conf  
|   |-- ports.conf
```

Microsoft Azure portal showing details for virtual machine **vssdemo_dd4fa944**.

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
 - Connect
 - Networking
 - Settings
 - Availability + scale
 - Security
 - Backup + disaster recovery
 - Operations

Essentials

Resource group (move)	: bvrith1	Operating system	: Linux (ubuntu 24.04)
Status	: Running	Size	: Standard Copied us, 8 c
Location	: Sweden Central (Zone 1)	Public IP address	: 135.225.56.11
Subscription (move)	: Azure subscription 1	Virtual network/subnet	: bvrith1vnet948/default
Subscription ID	: 27fb267c-ac69-4719-936a-758eba088783	DNS name	: Not configured
Availability zone	: 1	Health state	: -
Tags (edit)	: VirtualMachineProfileTimeCreated : 8/30/2024 2:30:01 PM +00:00		

Time created : 8/30/2024, 2:30 PM UTC

Properties | Monitoring | Capabilities (7) | Recommendations | Tutorials

Virtual machine | **Networking**

Apache2 Ubuntu Default Page

Ubuntu **It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

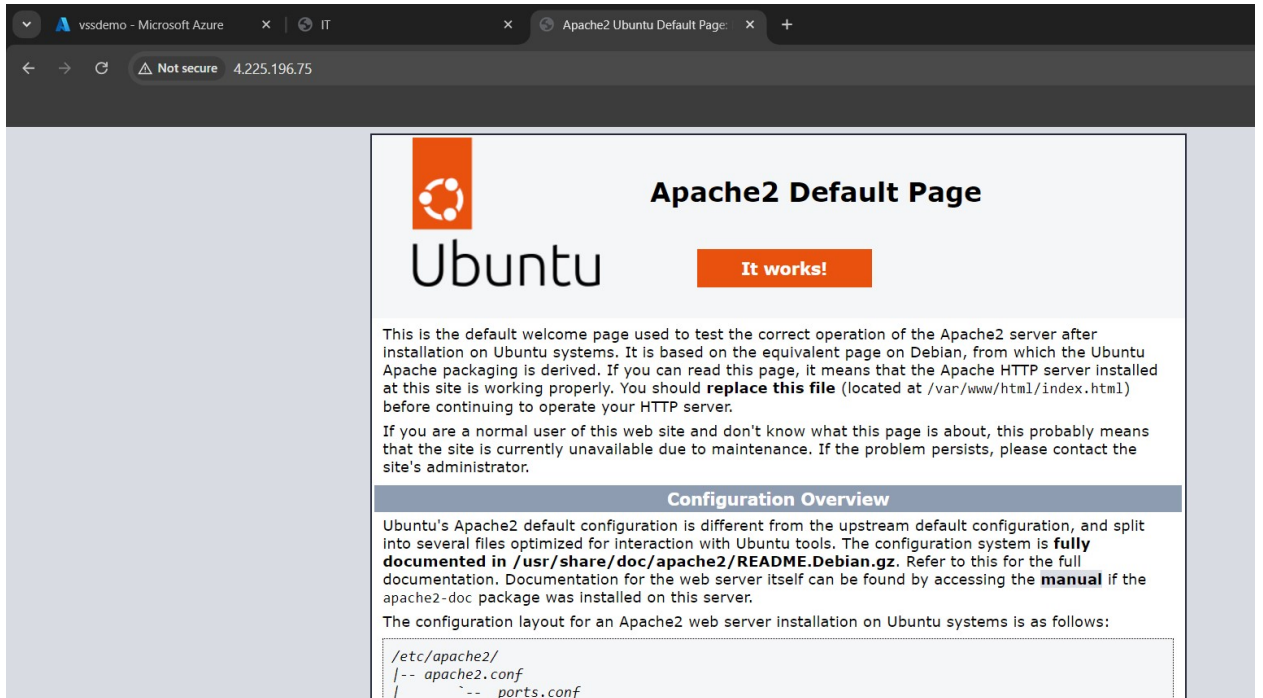
Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```

/etc/apache2/
|-- apache2.conf
|   |-- httpd.conf
|   |-- ports.conf
  
```


Now Go to the Virtual Machine Scale Sets and copy the Public IP and paste in the browser



Apache2 Default Page

Ubuntu

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/  
|-- apache2.conf  
|  
|-- ports.conf
```

INSTANCES CHECK

Connect the Instances using IP Address by using the SSH and Create HTML page (1.html) in first Instance and Second Instance

1.html(first instance)

```
<html>
```

```
<body>
```

Instance 1 page is Displayed

```
</html>
```

```
</body>
```

1.html(Second instance)

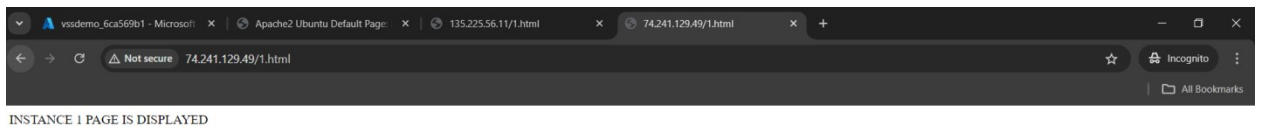
```
<html>
```

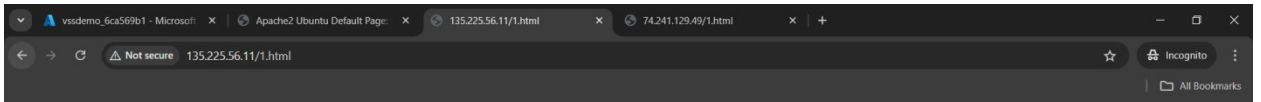
```
<body>
```

Instance 2 page is Displayed

```
</html>
```

```
</body>
```





INSTANCE2 PAGE IS DISPLAYED



TRY STOPPING ONE INSTANCE AND CALL THE PUBLIC IP OF VIRTUAL MACHINE SCALE SETS