

# LOAD BALANCER

portal.azure.com/#create/Microsoft.ResourceGroup

Microsoft Azure

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Home > Resource groups >

Create a resource group ...

Basics Tags Review + create

**Resource group** - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. [Learn more](#)

**Project details**

Subscription \* Azure for Students

Resource group \* RS-1

**Resource details**

Region \* (US) East US 2

Review + create

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Next : Tags >

portal.azure.com/#create/Microsoft.VirtualNetwork-ARM

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Home > Virtual networks >

Create virtual network ...

Basics Security IP addresses Tags Review + create

your resources.

Subscription \* Azure for Students

Resource group \* RS-1  
[Create new](#)

**Instance details**

Virtual network name \* lb-vnet

Region \* (US) East US 2  
[Deploy to an Azure Extended Zone](#)

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Home > Virtual networks >

## Create virtual network

Basics Security **IP addresses** Tags Review + create

Add IPv4 address space

10.0.0.0/16 [Delete address space](#)

10.0.0.0 /16  
10.0.0.0 - 10.0.255.255 65,536 addresses

+ Add a subnet

Subnets	IP address range	Size	NAT gateway
lb-subnet	10.0.1.0 - 10.0.1.255	/24 (256 addresses)	-

Previous Next **Review + create** [Give feedback](#)

portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/\_overview/id/%2Fsubscriptions%2Fca5224c7-5754-4288-91aa-9ba029f295...

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Home >

## lb-vnet-1720430789438 | Overview

Deployment

Search x « [Delete](#) [Cancel](#) [Redeploy](#) [Download](#) [Refresh](#)

**Overview**  
Inputs  
Outputs  
Template

**✓ Your deployment is complete**

Deployment name : lb-vnet-1720430789438  
Subscription : Azure for Students  
Resource group : RS-1

Start time : 7/8/2024, 2:56:43 PM  
Correlation ID : 15f05a07-3cd5-4f4c-8c50-31ed1af77c6

> Deployment details  
v Next steps

**Go to resource**

Give feedback  
[Tell us about your experience with deployment](#)

**Deployment succeeded**  
Deployment 'lb-vnet-1720430789438' to resource group 'RS-1' was successful.  
[Go to resource](#) [Pin to dashboard](#)

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portal.azure.com/#create/Microsoft.VirtualMachine-ARM

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Home > Virtual machines >

Create a virtual machine

×

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

Subscription \*

Azure for Students

Resource group \*

RS-1

Create new

Instance details

Virtual machine name \*

vm-1

Region \*

(US) East US 2

Availability options

Availability set

Based on your input, you might want to consider creating this resource as a virtual machine scale set, which allows you to manage, configure and scale load balanced virtual machines. [Create as VMSS](#)

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Review + create

Give feedback

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Create a virtual machine

×

Based on your input, you might want to consider creating this resource as a virtual machine scale set, which allows you to manage, configure and scale load balanced virtual machines. [Create as VMSS](#)

Availability set \*

No existing availability sets in current resource group and location.

Create new

Security type

Trusted launch virtual machines

Configure security features

Image \*

Ubuntu Server 20.04 LTS - x64 Gen2

See all images | Configure VM generation

VM architecture

Arm64

x64

Run with Azure Spot discount

Size \*

Standard\_DS1\_v2 - 1 vcpu, 3.5 GiB memory (₹3,461.73/month)

See all sizes

< Previous

Next : Disks >

Review + create

Create availability set

×

Group two or more VMs in an availability set to ensure that at least one is available during planned or unplanned maintenance events. [Learn more](#)

Name \*

lb-av-set

Fault domains

2

Update domains

5

Use managed disks

No (Classic)

Yes (Aligned)

OK

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Home > Virtual machines >

## Create a virtual machine

**Network interface**

When creating a virtual machine, a network interface will be created for you.

Virtual network \*  [Create new](#)

Subnet \*  [Manage subnet configuration](#)

Public IP  [Create new](#)

NIC network security group ☐ None ☒ Basic ☐ Advanced

Public inbound ports \* ☐ None ☒ Allow selected ports

< Previous Next : Management > **Review + create**

### Create public IP address

Name \*

SKU \* ☒ Basic ☐ Standard

Assignment ☒ Dynamic ☐ Static

**OK**

portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/\_/overview/id/%2Fsubscriptions%2Fca5224c7-5754-4288-91aa-9ba02...

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Home >

## CreateVm-canonical.0001-com-ubuntu-server-focal-2-20240708145712 | Overview

Deployment

Search x « Delete Cancel Redeploy Download Refresh

**Overview**

Inputs

Outputs

Template

**Your deployment is complete**

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-... Start time: 7/8/2024, 3:01:25 PM  
Subscription: [Azure for Students](#) Correlation ID: 09db5948-83d4-4378-950f-f45c  
Resource group: RS-1

**Deployment details**

**Next steps**

[Setup auto-shutdown](#) Recommended

[Monitor VM health, performance and network dependencies](#) Recommended

[Run a script inside the virtual machine](#) Recommended

[Go to resource](#) [Create another VM](#)

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[Tell us about your experience with deployment](#)

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Create a virtual machine

Project details

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

Subscription \*

Azure for Students

Resource group \*

RS-1

Create new

Instance details

Virtual machine name \*

vm-2

Region \*

(US) East US 2

Availability options

Availability set

Based on your input, you might want to consider creating this resource as a virtual machine scale set, which allows you to manage, configure and scale load balanced virtual machines. Create as VMSS now

< Previous

Next : Disks >

Review + create

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Home > Virtual machines >

Create a virtual machine

Basics

Disks

Networking

Management

Monitoring

Advanced

Tags

Review + create

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.  
[Learn more](#)

Network interface

When creating a virtual machine, a network interface will be created for you.

Virtual network \*

lb-vnet

Create new

Subnet \*

lb-subnet (10.0.1.0/24)

Manage subnet configuration

Public IP

(new) vm-2-ip

Create new

NIC network security group

None

Basic

< Previous

Next : Management >

Review + create

Create public IP address

Name \*

vm-2-ip

SKU \*

Basic

Standard

Assignment

Dynamic

Static

OK

portal.azure.com/#view/Microsoft\_Azure\_Network/LoadBalancingHubMenuBlade/~/loadBalancers

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Home > Load balancing

## Load balancing | Load Balancer

Search


+ Create Manage view Refresh Export to CSV Open query Assign tags

Filter for any field... Subscription equals all Resource group equals all Location equals all Add filter

Showing 0 to 0 of 0 records.

No grouping List view

Name ↑↓	Resource group ↑↓	Location ↑↓	Subscription ↑↓
---------	-------------------	-------------	-----------------



### No load balancers to display

Azure Load Balancer enables your applications to be highly available and scalable. You can scale up and down based on your traffic patterns. Azure Load Balancer is best suited for network traffic requiring high performance and ultra-low latency.

Create load balancer Give feedback

portal.azure.com/#create/Microsoft.LoadBalancer-ARM

Microsoft Azure

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Home > Load balancing | Load Balancer

## Create load balancer

Subscription \* Azure for Students

Resource group \* RS-1  
[Create new](#)

### Instance details

Name \* basic-lb ✓


Region \* East US 2

SKU \* ○

☐ Standard (Recommended)

☐ Gateway

☒ Basic (Retiring soon)

 Microsoft recommends Standard SKU load balancer for production workloads; Basic SKU will be retired on September 30, 2025. [Learn more.](#)

Type \* ○

☒ Public

☐ Internal

[Review + create](#) [< Previous](#) [Next: Frontend IP configuration >](#) [Download a template for automation](#) [Give feedback](#)

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Home > Load balancing | Load Balancer >

Create load balancer ...

BasicsFrontend IP configurationBackend poolsInbound rulesOutbound rulesTagsReview + create

A frontend IP configuration is an IP address used for inbound and/or outbound communication as defined within load balancing, in

+ Add a frontend IP configuration

Name ↑↓

IP address ↑↓

Add a frontend IP to get started

Review + create

< Previous

Next : Backend pools >

Download a template for automation

Give feedback

Add frontend IP configuration

basic-lb

Name \*

my-frontend-ip

IP version

☒ IPv4

☐ IPv6

Public IP address \*

Select public IP address

Add a public IP address

Name \*

my-public-ip

SKU

Basic

On 30 September 2025, Azure Basic Public IP will be retired. [Learn more.](#)

Tier

Regional

Static IPs are assigned at the time the resource is created and released when the resource is deleted. Dynamic IPs are assigned when associating the IP to a resource and is released when you stop, restart, or delete a resource. Dynamic is only available for Basic SKU.

Assignment

☒ Dynamic

☐ Static

Save

Cancel

portal.azure.com/#view/Microsoft\_Azure\_Network/RegionalLBBackendPoolManage.ReactView/loadBalancerId~/null/expandedLoadBalan...

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Home > Load balancing | Load Balancer > Create load balancer >

Add backend pool ...

Name \*

my-backend

Virtual network

lb-vnet (RS-1)

IP configurations

IP configurations associated to virtual machines and virtual machine scale sets must be in same location as the load balancer and be in the same virtual network.

+ Add | X Remove

Resource Name	Resource group	Type	IP configuration	IP Address	Availabi...
vm-1	RS-1	Virtual machine	ipconfig1	10.0.1.4	LB-AV-SET
vm-2	RS-1	Virtual machine	ipconfig1	10.0.1.5	LB-AV-SET

Save

Cancel

Give feedback

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Home > Load balancing > Load Balancer >

Create load balancer

BasicsFrontend IP configurationBackend poolsInbound rulesOutbound rulesTagsReview + create

Load balancing rule

A load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend instances that are eligible to receive traffic.

+ Add a load balancing rule

Name ↑↓Frontend IP configuration ↑↓Backend pool ↑↓Health probe ↑↓

Add a rule to get started

Inbound NAT rule

An inbound NAT rule forwards incoming traffic sent to a selected IP address and port combination to a specific virtual machine.

+ Add an inbound nat rule

Review + create< PreviousNext : Outbound rule >Download a template for automationGive feedback

SaveCancel

Give feedback

Add load balancing rule

basic-lb

A load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend instances. Only backend instances that the health probe considers healthy receive new traffic. [Learn more.](#)

Name \*my-lb-rule

IP Version \*

IPv4

IPv6

Frontend IP address \* 

my-frontend-ip (Dynamic)

Backend pool \* 

my-backend

Protocol

TCP

UDP

Port \*80

portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/overview/id/%2Fsubscriptions%2Fca5224c7-5754-4288-91aa-9ba02...

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Home >

Microsoft.LoadBalancer-20240708150504 | Overview

Deployment

Search

DeleteCancelRedeployDownloadRefresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name : Microsoft.LoadBalancer-20240708150...

Subscription : Azure for Students

Resource group : RS-1

> Deployment details

> Next steps

Go to resource

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portal.azure.com/#@subhambh14gmail.onmicrosoft.com/resource/subscriptions/ca5224c7-5754-4288-91aa-9ba029f2951e/resourceGroups/...

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Home > Virtual machines > vm-1

### vm-1 | Connect

Virtual machine

Search

Refresh Troubleshoot More Options Feedback

Connecting using  
Public IP address | 172.172.109.90

Admin username  
Subham

Port (change)  
22 Check access

Just-in-time policy  
Unsupported by plan

**Recommended**

**SSH using Azure CLI**

Local machine Azure portal

Quickly connect in browser. Supports Microsoft Entra ID authentication. Private key not required.  
Public IP address (172.172.109.90)

**Most common**

**Native SSH**

Local machine

No additional software needed. Private key required for connection. Best for those with existing SSH tools.  
Public IP address (172.172.109.90)

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems  
Connect  
Connect  
Bastion  
Networking  
Network settings  
Load balancing  
Application security groups  
Network manager  
Settings

portal.azure.com/#@subhambh14gmail.onmicrosoft.com/resource/subscriptions/ca5224c7-5754-4288-91aa-9ba029f2951e/resourcegro...

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Home > vm-2

### vm-2 | Connect

Virtual machine

Search

Refresh Troubleshoot More Options Feedback

Connecting using  
Public IP address | 172.172.109.130

Admin username  
Subham

Port (change)  
22 Check access

Just-in-time policy  
Unsupported by plan

**Recommended**

**SSH using Azure CLI**

Local machine Azure portal

Quickly connect in browser. Supports Microsoft Entra ID authentication. Private key not required.  
Public IP address (172.172.109.130)

**Most common**

**Native SSH**

Local machine

No additional software needed. Private key required for connection. Best for those with existing SSH tools.  
Public IP address (172.172.109.130)

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems  
Connect  
Connect  
Bastion  
Networking  
Network settings  
Load balancing  
Application security groups  
Network manager  
Settings

172.172.109.90:22 - root@vm-1: /var/www/html - Xshell 7 (Free for Home/School)

File Edit View Tools Tab Window Help

ssh://Subham@172.172.109.90:22

To add the current session, click on the left arrow button.

Session Manager

1 172.172.109.90:22 2 172.172.109.130:22

All Sessions

Xshell 7 (Build 0164)  
Copyright (c) 2020 NetSarang Computer, Inc. All rights reserved.

Type 'help' to learn how to use Xshell prompt.  
[C:\>] ssh -i -p Subham@172.172.109.90

Connecting to 172.172.109.90:22...  
Connection established.  
To escape to local shell, press 'Ctrl+Alt+J'.

Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1067-azure x86\_64)

\* Documentation: <https://help.ubuntu.com>  
\* Management: <https://landscape.canonical.com>  
\* Support: <https://ubuntu.com/pro>

System information as of Mon Jul 8 11:03:20 UTC 2024

System load: 0.26 Processes: 122  
Usage of /: 5.2% of 28.89GB Users logged in: 0  
Memory usage: 9% IPv4 address for eth0: 10.0.1.4  
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 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.

Name	All Sessi...
Type	Folder
Sub items	0
Host	
Port	22
Protocol	SSH
User Name	
Description	

ssh://Subham@172.172.109.90:22

SSH2 xterm 123x36 36,26 2 sessions CAP NUM

172.172.109.90:22 - root@vm-1: /var/www/html - Xshell 7 (Free for Home/School)

File Edit View Tools Tab Window Help

ssh://Subham@172.172.109.90:22

To add the current session, click on the left arrow button.

Session Manager

1 172.172.109.90:22 2 172.172.109.130:22

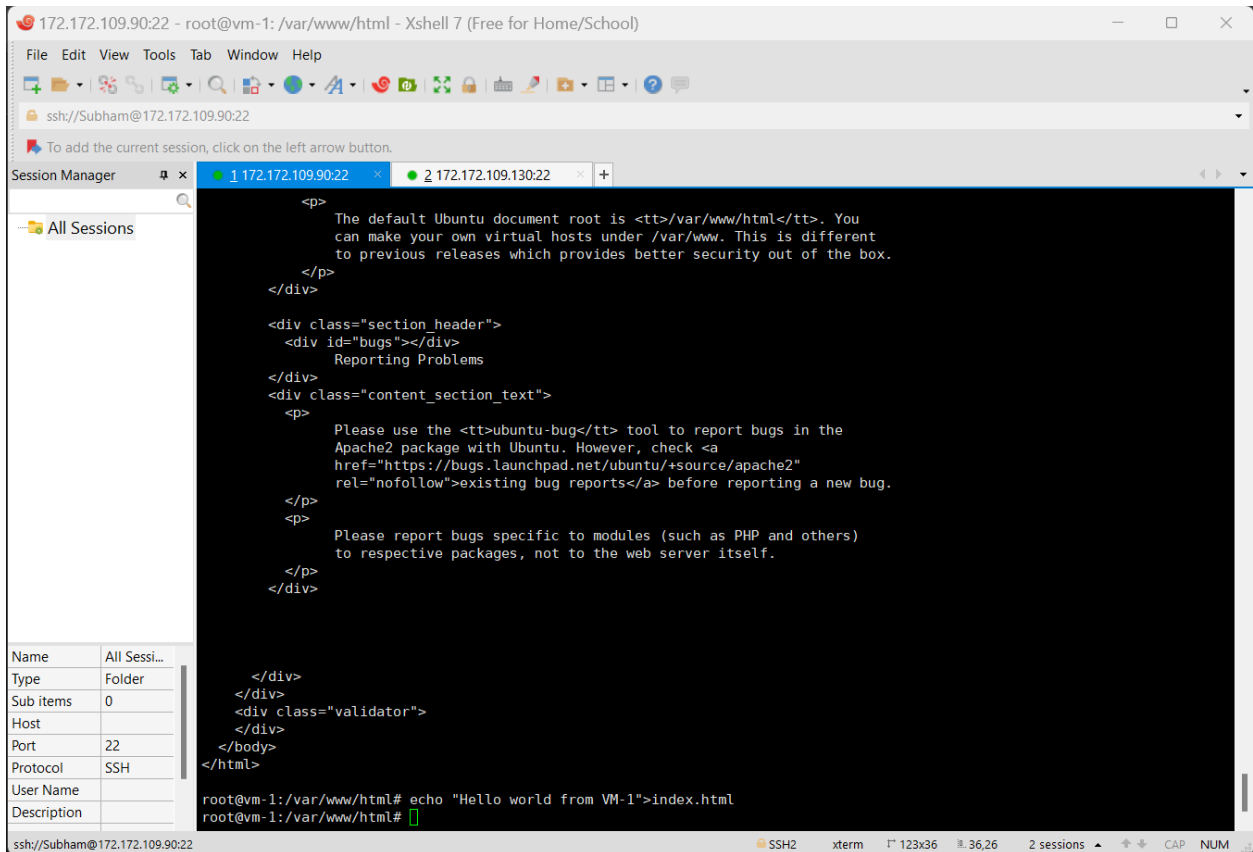
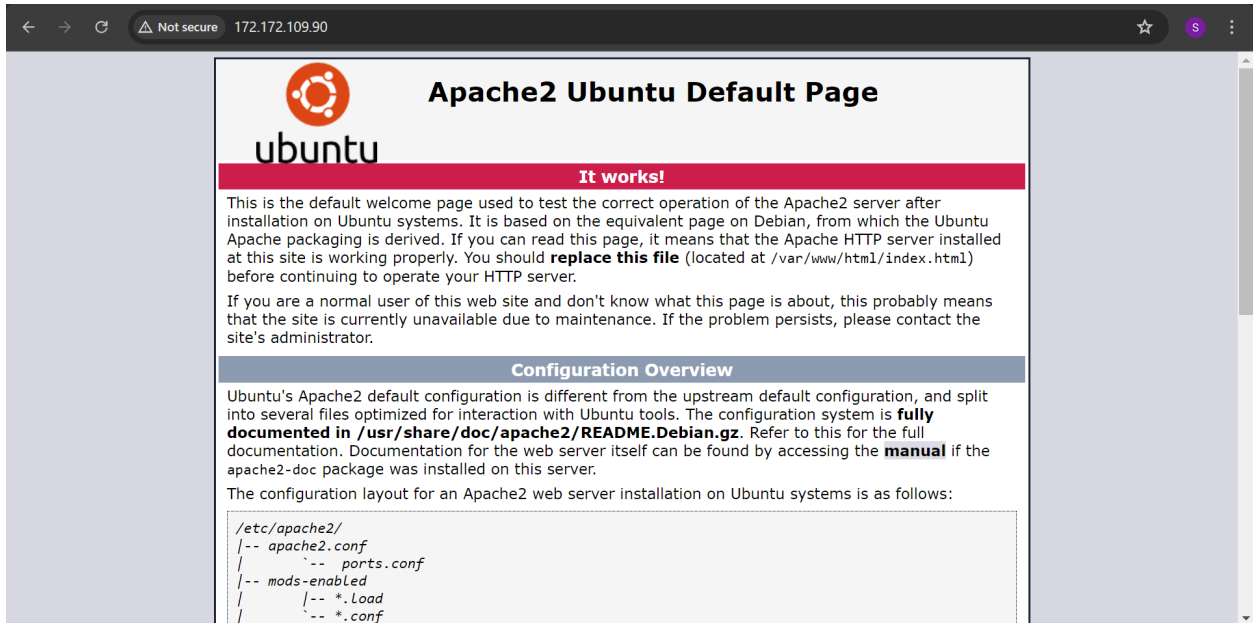
All Sessions

Enabling module mpm\_event.  
Enabling module authz\_core.  
Enabling module authz\_host.  
Enabling module authn\_core.  
Enabling module auth\_basic.  
Enabling module access\_compat.  
Enabling module authn\_file.  
Enabling module authz\_user.  
Enabling module alias.  
Enabling module dir.  
Enabling module autoindex.  
Enabling module env.  
Enabling module mime.  
Enabling module negotiation.  
Enabling module setenvif.  
Enabling module filter.  
Enabling module deflate.  
Enabling module status.  
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-vhosts-access-log.  
Enabling conf security.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.  
Processing triggers for ufw (0.36-6ubuntu1.1) ...  
Processing triggers for systemd (245.4-4ubuntu3.23) ...  
Processing triggers for man-db (2.9.1-1) ...  
Processing triggers for libc-bin (2.31-0ubuntu9.16) ...  
root@vm-1:~# cd /var/www/html  
root@vm-1:/var/www/html# ls  
index.html  
root@vm-1:/var/www/html#

Name	All Sessi...
Type	Folder
Sub items	0
Host	
Port	22
Protocol	SSH
User Name	
Description	

ssh://Subham@172.172.109.90:22

SSH2 xterm 123x36 36,26 2 sessions CAP NUM





Hello world from VM-1

