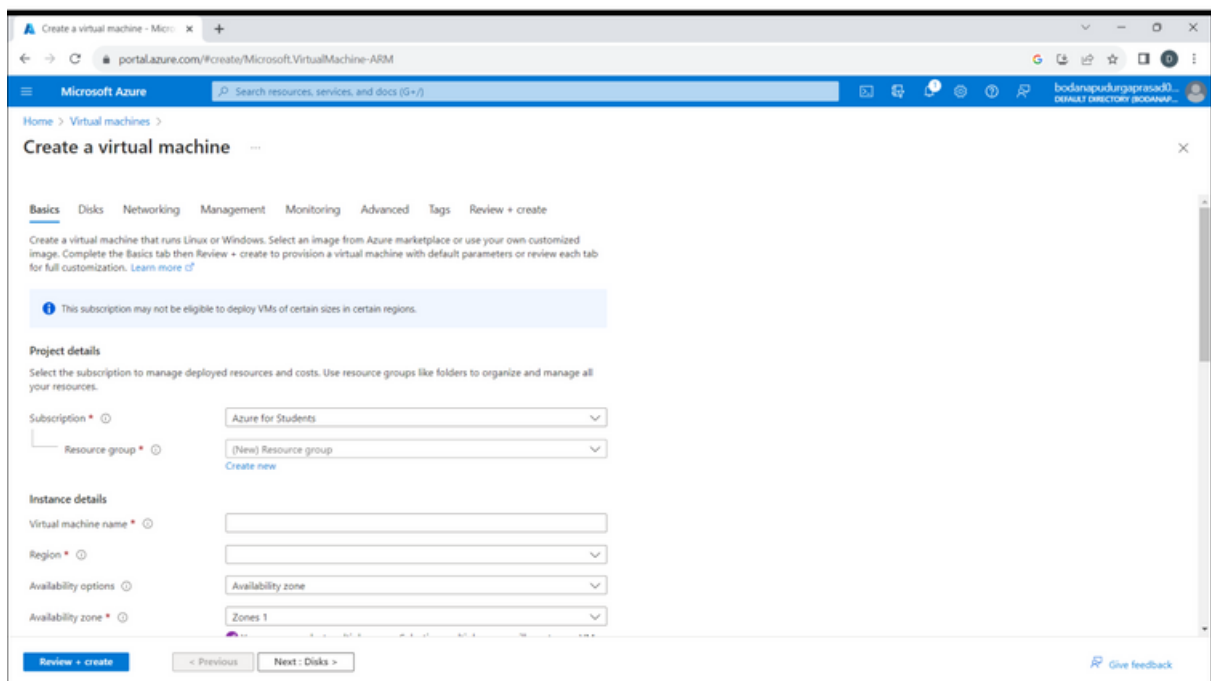
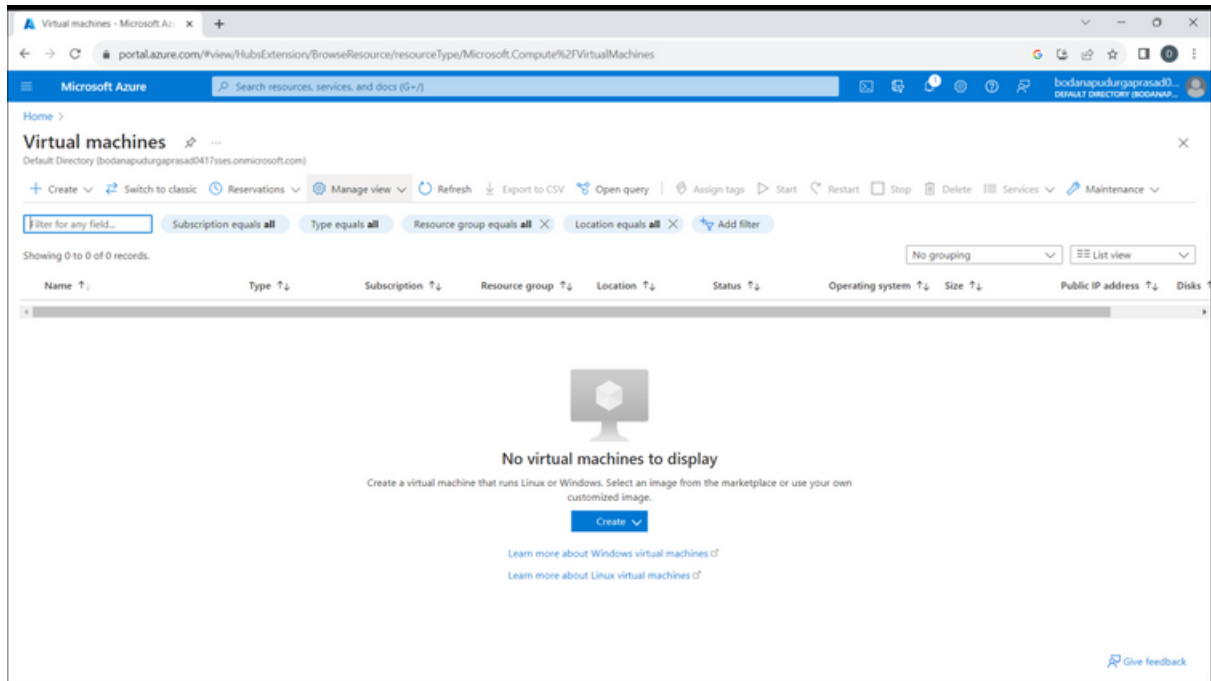


Experiment-14

Demonstrate Infrastructure as a Service (IaaS) by establishing the remote connection, launch the created VM image and run in your desktop



Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Search resources, services, and docs (0+)

Home > Virtual machines >

Create a virtual machine

your resources.

Subscription *

Resource group * [Create new](#)

Instance details

Virtual machine name *

Region *

Availability options

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

Security type
 [Configure security features](#)

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

VM architecture ☐ Arm64 ☒ x64

[Review & create](#) [< Previous](#) [Next: Disks >](#) [Give feedback](#)

Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Search resources, services, and docs (0+)

Home > Virtual machines >

Create a virtual machine

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

VM architecture ☐ Arm64 ☒ x64

Run with Azure Spot discount ☐

Size *
 [See all sizes](#)

Administrator account

Authentication type ☒ SSH public key ☐ Password

Username *

SSH public key source

Key pair name *

Inbound port rules

Select which virtual machine network ports are accessible from the public Internet. You can enable more than one.

[Review & create](#) [< Previous](#) [Next: Disks >](#) [Give feedback](#)

Create a virtual machine - Microsoft Azure

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

Home > Virtual machines >

Create a virtual machine

Azure disk storage encryption automatically encrypts your data stored on Azure managed disks (OS and data disks) at rest by default when persisting it to the cloud.

Encryption at host ☐

Encryption at host is not registered for the selected subscription. [Learn more about enabling this feature](#)

OS disk

OS disk size

OS disk type

Delete with VM ☒

Key management

Enable Ultra Disk compatibility ☐

Ultra disk is not supported with selected security type.

Data disks for ace

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching	Delete with VM

[Create and attach a new disk](#) [Attach an existing disk](#)

[Review + create](#) [Previous](#) [Next: Networking >](#) [Give feedback](#)

Create a virtual machine - Microsoft Azure

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

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

[Create new](#)

Public IP

[Create new](#)

NIC network security group ☐ None ☒ Basic ☐ Advanced

Public inbound ports ☐ None ☒ Allow selected ports

Select inbound ports

This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

Delete public IP and NIC when VM is deleted ☐

[Review + create](#) [Previous](#) [Next: Management >](#) [Give feedback](#)

Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Microsoft Defender for Cloud
Microsoft Defender for Cloud provides unified security management and advanced threat protection across hybrid cloud workloads. [Learn more](#)

✓ Your subscription is protected by Microsoft Defender for Cloud basic plan.

Identity
Enable system assigned managed identity ☐

Azure AD
Login with Azure AD ☐
RBAC role assignment of Virtual Machine Administrator Login or Virtual Machine User Login is required when using Azure AD login. [Learn more](#)

Azure AD login now uses SSH certificate-based authentication. You will need to use an SSH client that supports OpenSSH certificates. You can use Azure CLI or Cloud Shell from the Azure Portal. [Learn more](#)

Auto-shutdown
Enable auto-shutdown ☐

Backup
Enable backup ☐

[Review + create](#) [< Previous](#) [Next: Monitoring >](#) [Give feedback](#)

Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Basics Disks Networking Management **Monitoring** Advanced Tags Review + create

Configure monitoring options for your VM.

Alerts
Enable recommended alert rules ☐

Diagnostics
 Boot diagnostics ☒ Enable with managed storage account (recommended)
☐ Enable with custom storage account
☐ Disable
 Enable OS guest diagnostics ☐

[Review + create](#) [< Previous](#) [Next: Advanced >](#) [Give feedback](#)

Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Performance (NVMe)
Enable capabilities to enhance the performance of your resources.

Higher remote disk storage performance with NVMe ☐

The selected size is not supported for NVMe. See supported size families.

Host
Azure Dedicated Hosts allow you to provision and manage a physical server within our data centers that are dedicated to your Azure subscription. A dedicated host gives you assurance that only VMs from your subscription are on the host, flexibility to choose VMs from your subscription that will be provisioned on the host, and the control of platform maintenance at the level of the host. Learn more.

Host group: No host groups found

Capacity reservations
Capacity reservations allow you to reserve capacity for your virtual machine needs. You get the same SLA as normal virtual machines with the security of reserving the capacity ahead of time. Learn more.

Capacity reservation group: None

Proximity placement group
Proximity placement groups allow you to group Azure resources physically closer together in the same region. Learn more.

Proximity placement group: No proximity placement groups found

Review + create Previous Next: Tags >

Give feedback

Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Basics Disks Networking Management Monitoring Advanced **Tags** Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. Learn more about tags.

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value	Resource
envk	23	13 selected
		13 selected

Review + create Previous Next: Review + create >

Give feedback

Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Search resources, services, and docs (G+J)

Home > Virtual machines >

Create a virtual machine

Validation passed

By clicking "Create", I (s) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (s) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (s) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

Name

Preferred e-mail address

Preferred phone number

You have set SSH port(s) open to the internet. This is only recommended for testing. If you want to change this setting, go back to Basics tab.

Basics

Subscription

Azure for Students

Resource group

prasad

Virtual machine name

ace

Region

Central India

Availability options

Availability zone

Create

< Previous

Next >

Download a template for automation

Give feedback

Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Search resources, services, and docs (G+J)

Home > Virtual machines >

Create a virtual machine

Validation passed

system assigned managed identity

Off

Login with Azure AD

Off

Auto-shutdown

Off

Backup

Disabled

Enable hotpatch

Off

Patch orchestration options

Image Default

Monitoring

Alerts

Off

Boot diagnostics

On

Enable OS guest diagnostics

Off

Advanced

Extensions

None

VM applications

None

Cloud init

No

User data

No

Disk controller type

SCSI

Proximity placement group

None

Capacity reservation group

None

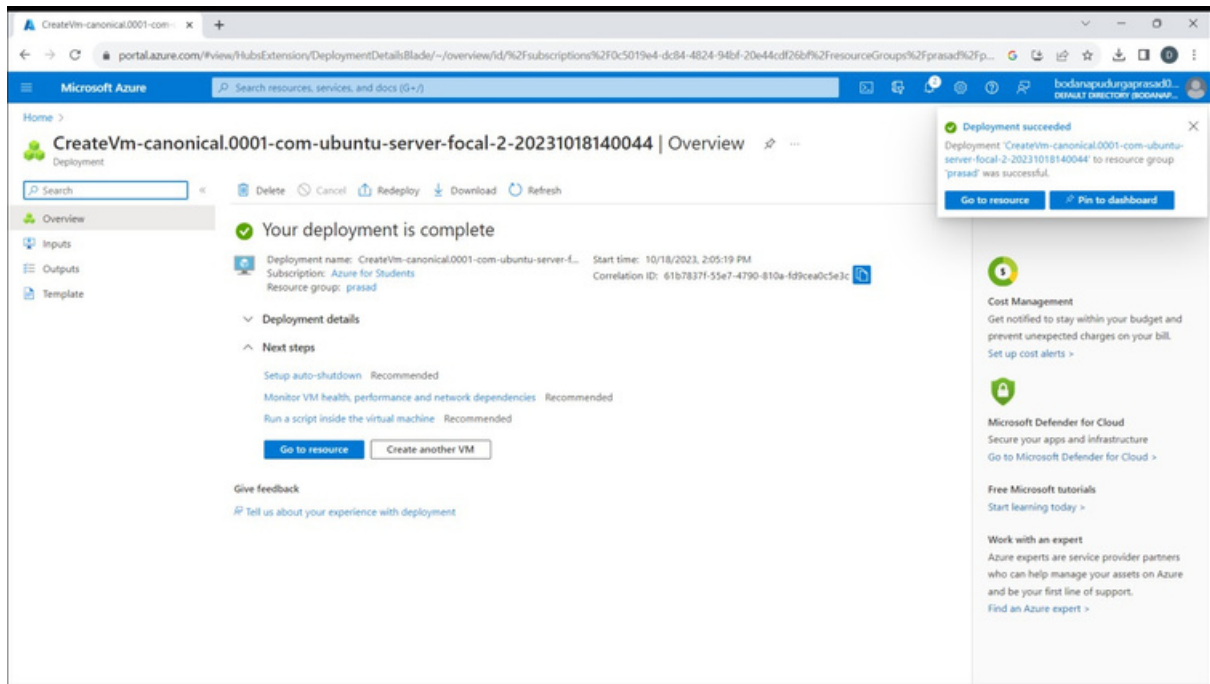
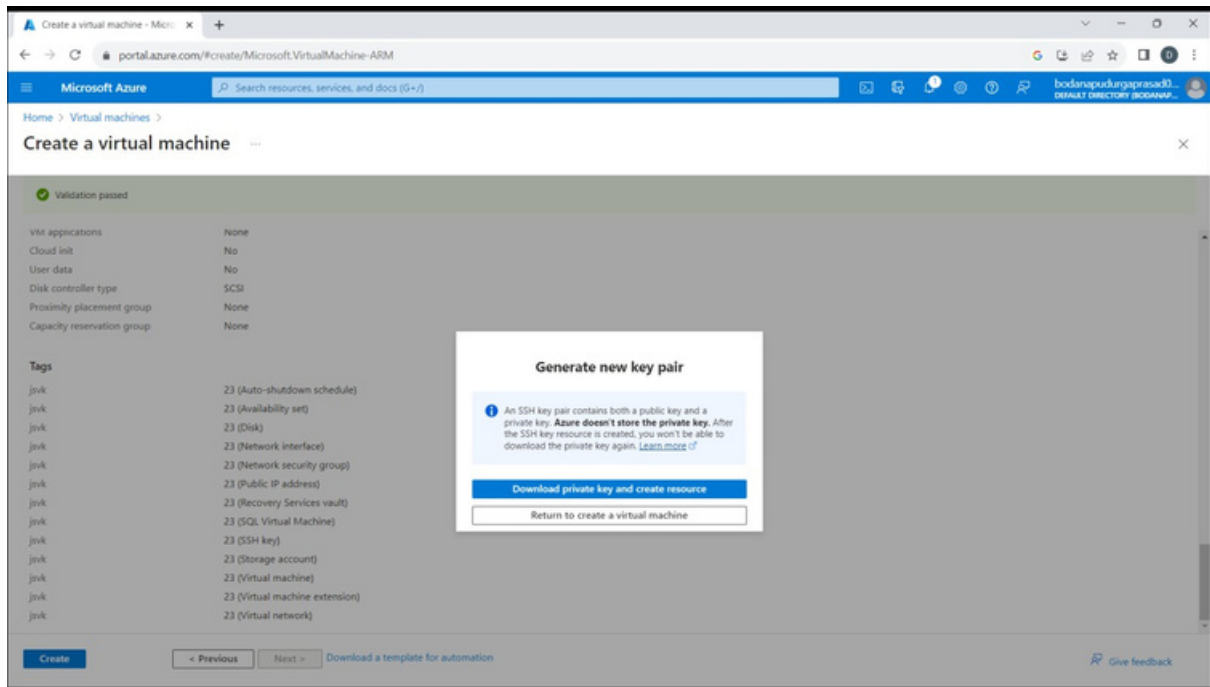
Create

< Previous

Next >

Download a template for automation

Give feedback



ace - Microsoft Azure

portal.azure.com/#@bodanapudungaprasad0417/.../resource/subscriptions/0c5019e4-dc84-4824-94bf-20e44cd926bf/resourcegroups/prasad/providers/Microsoft...

Microsoft Azure

Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20231018140044 | Overview >

ace Virtual machine

Search

Connect Start Restart Stop Capture Delete Refresh Open in mobile Feedback CU / PS

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Networking

Connect

Disks

Size

Microsoft Defender for Cloud

Advisor recommendations

Extensions + applications

Availability + scaling

Configuration

Identity

Properties

Locks

Operations

Essentials

Resource group (most) : prasad

Status : Running

Location : Central India (Zone 1)

Subscription (most) : Azure for Students

Subscription ID : 0c5019e4-dc84-4824-94bf-20e44cd926bf

Availability zone : 1

Tags (add) : jwtk : 23

Operating system : Linux (ubuntu 20.04)

Size : Standard D2s v3 (2 vcpus, 8 GiB memory)

Public IP address : 40.81.237.63

Virtual network/subnet : ace-vnet/default

DNS name : Not configured

Health state : -

JSON View

Properties Monitoring Capabilities (7) Recommendations Tutorials

Virtual machine

Computer name : ace

Operating system : Linux (ubuntu 20.04)

Image publisher : canonical

Image offer : 0001-com-ubuntu-server-focal

Image plan : 20_04-its-gen2

VM generation : V2

VM architecture : x64

Agent status : Ready

Agent version : 2.9.1.1

Host group : None

Networking

Public IP address : 40.81.237.63 (Network interface ace008_x1)

Public IP address (IPv6) : -

Private IP address : 10.0.0.4

Private IP address (IPv6) : -

Virtual network/subnet : ace-vnet/default

DNS name : Configure

Size

Size : Standard D2s v3

vCPUs : 2

RAM : 8 GiB

ace - Microsoft Azure

portal.azure.com/#@bodanapudungaprasad0417/.../resource/subscriptions/0c5019e4-dc84-4824-94bf-20e44cd926bf/resourcegroups/prasad/providers/Microsoft...

Microsoft Azure

Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20231018140044 | Overview > ace

ace | Connect Virtual machine

Search

Refresh Troubleshooting More Options Feedback

Connecting using

Public IP address | 40.81.237.63

Admin username : azureuser

Port (change) : 22 Check access

Just-in-time policy : Unsupported by plan

Recommended

Local machine Azure portal

SSH using Azure CLI

Quickly connect in browser. Supports Azure AD authentication. Private key not required.

Public IP address (40.81.237.63)

Select

Most common

Local machine

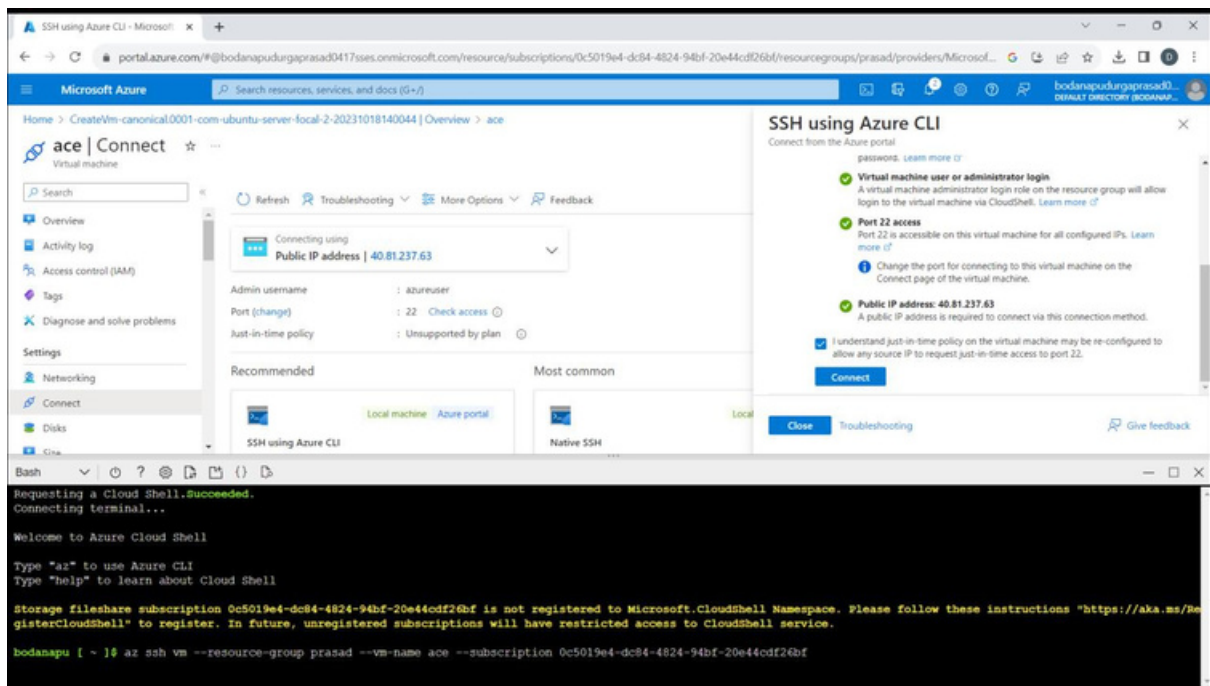
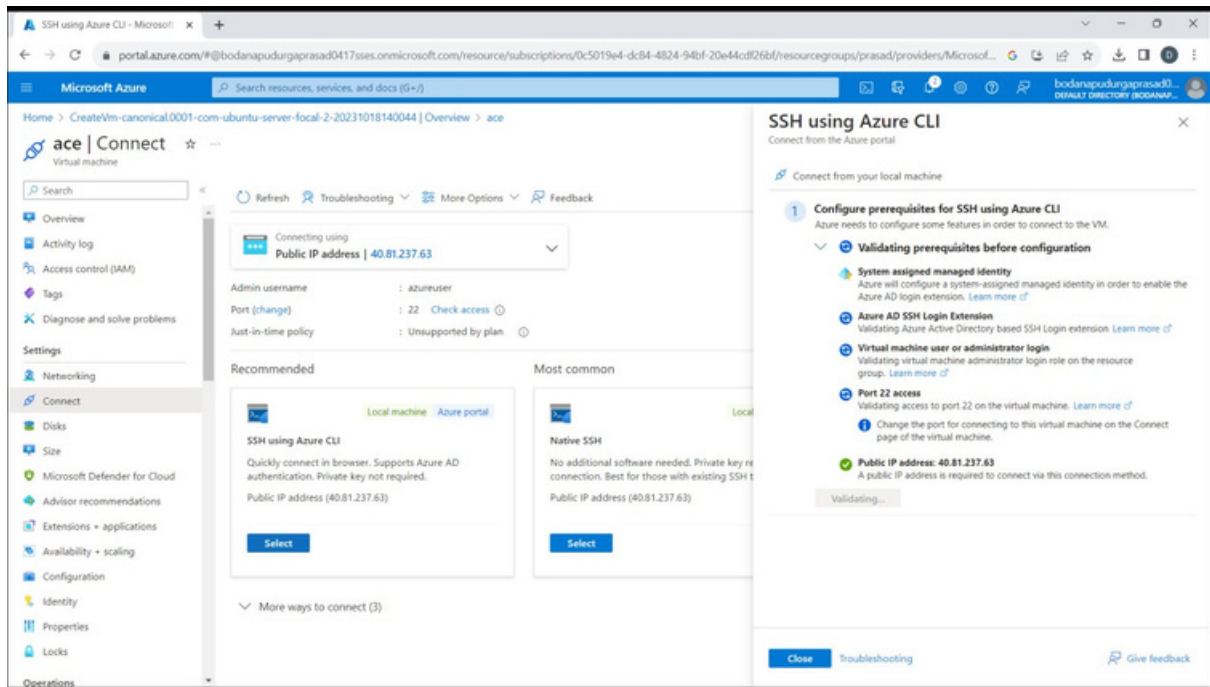
Native SSH

No additional software needed. Private key required for connection. Best for those with existing SSH tools.

Public IP address (40.81.237.63)

Select

More ways to connect (3)



SSH using Azure CLI - Microsoft

portal.azure.com/#@bodanapudurgaprasad0417/.../resource/subscriptions/0c5019e4-dc84-4824-94bf-20e44cd26b6f/resourcegroups/prasad/providers/Microsoft...

Microsoft Azure

Search resources, services, and docs (G+)

Home > CreateVms-canonical0001-com-ubuntu-server-focal-2-20231018140044 | Overview > ace

ace | Connect

Virtual machine

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Networking

Connect

Disks

Clone

Refresh Troubleshooting More Options Feedback

Connecting using Public IP address | 40.81.237.63

Admin username : azureuser

Port (change) : 22 Check access

Just-in-time policy : Unsupported by plan

Recommended

Most common

SSH using Azure CLI

Native SSH

SSH using Azure CLI

Connect from the Azure portal

passwords. Learn more

Virtual machine user or administrator login

A virtual machine administrator login role on the resource group will allow login to the virtual machine via CloudShell. Learn more

Port 22 access

Port 22 is accessible on this virtual machine for all configured IPs. Learn more

Change the port for connecting to this virtual machine on the Connect page of the virtual machine.

Public IP address: 40.81.237.63

A public IP address is required to connect via this connection method.

I understand just-in-time policy on the virtual machine may be re-configured to allow any source IP to request just-in-time access to port 22.

Connect

Close Troubleshooting Give feedback

Bash

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.

To run a command as administrator (user "root"), use "sudo <command>". See "man sudo_root" for details.

bodanapudurgaprasad0417.sse@saveetha.com@ace:~\$