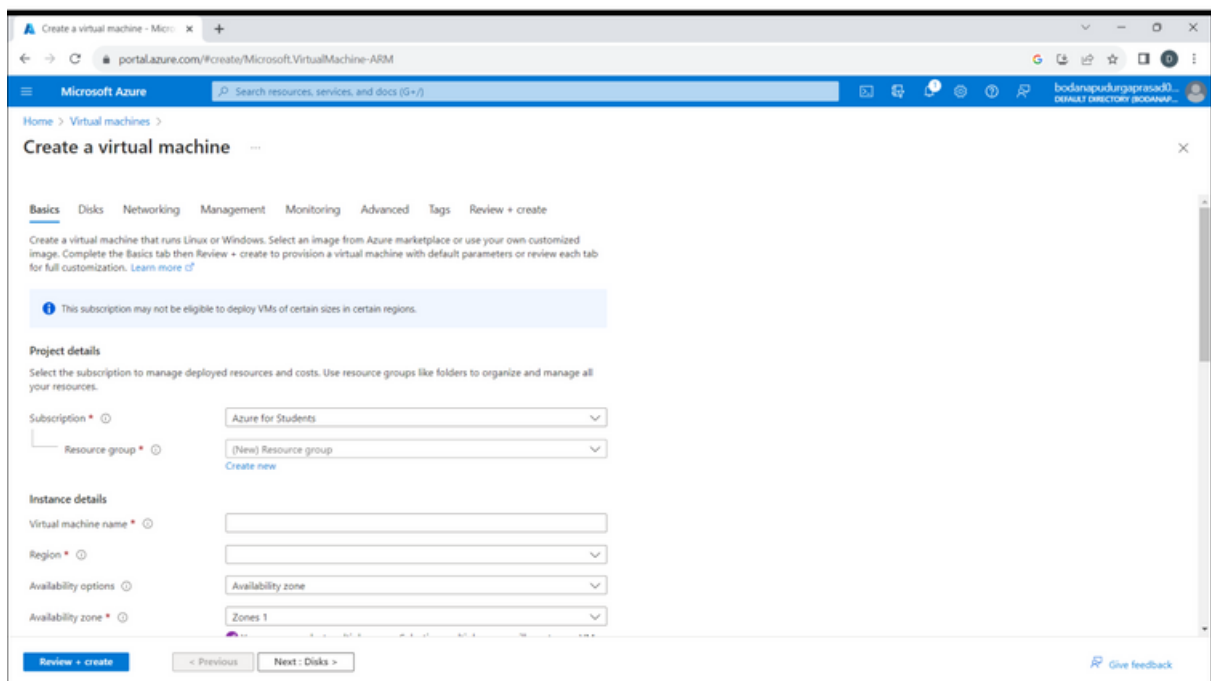
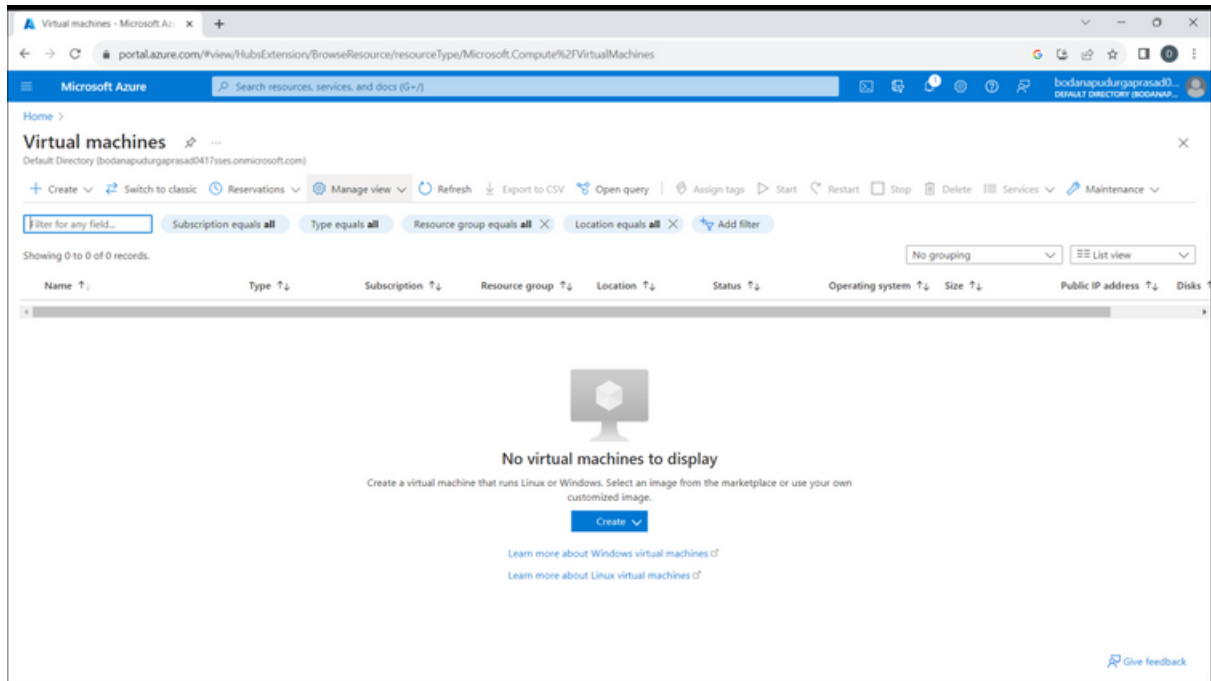


Experiment-14

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 Azure for Students

Resource group prasad [Create new](#)

Instance details

Virtual machine name ace

Region (Asia Pacific) Central India

Availability options Availability zone

Availability zone Zones 1

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

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

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Create a virtual machine - Microsoft Azure

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Microsoft Azure

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Create a virtual machine

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_D2s_v3 - 2 vcpus, 8 GiB memory (₹6,019.67/month) [See all sizes](#)

Administrator account

Authentication type
☒ SSH public key
☐ Password

Azure now automatically generates an SSH key pair for you and allows you to store it for future use. It is a fast, simple, and secure way to connect to your virtual machine.

Username azureuser

SSH public key source Generate new key pair

Key pair name ace_key

Inbound port rules

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

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Create a virtual machine - Microsoft Azure

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

Microsoft Azure

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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](#)

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Create a virtual machine - Microsoft Azure

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

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Network interface

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

Virtual network

Subnet

Public IP

NIC network security group ☐ None ☒ Basic ☐ Advanced

Public inbound ports ☐ None ☒ Allow selected ports

Select inbound ports

Delete public IP and NIC when VM is deleted ☐

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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.

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 ☐

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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 ☐

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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

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Create a virtual machine

Validation passed

system assigned managed identity:

Login with Azure AD:

Auto-shutdown:

Backup:

Enable hotpatch:

Patch orchestration options:

Monitoring

Alerts:

Boot diagnostics:

Enable OS guest diagnostics:

Advanced

Extensions:

VM applications:

Cloud init:

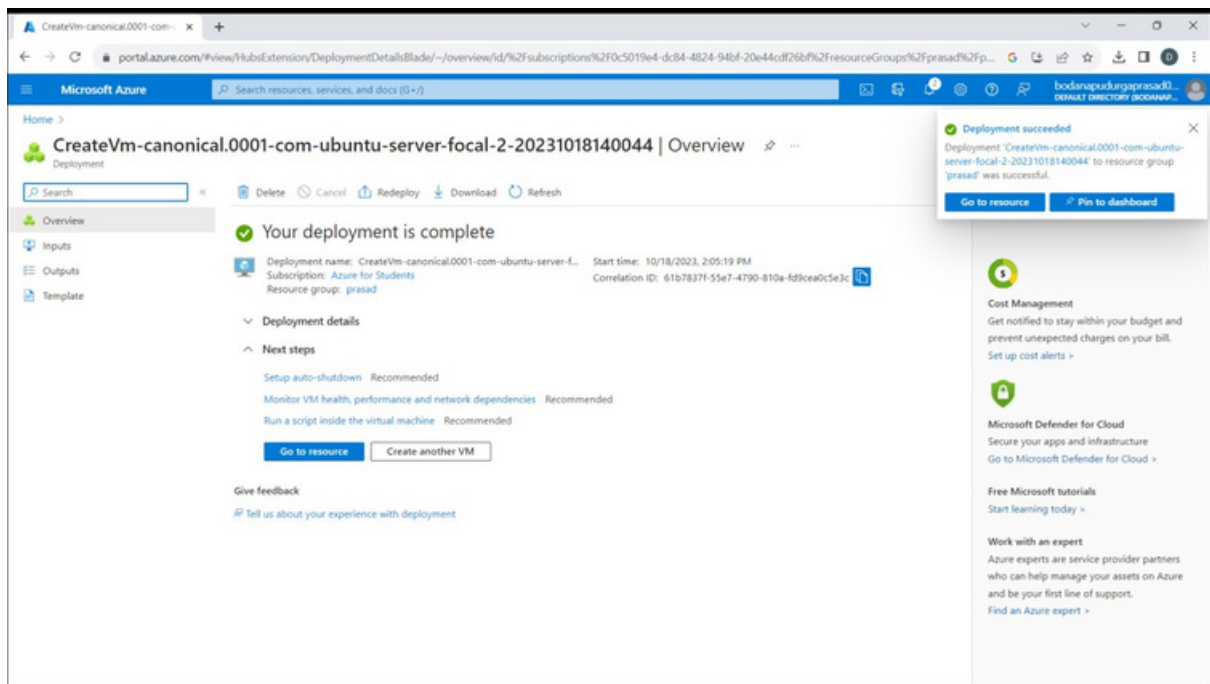
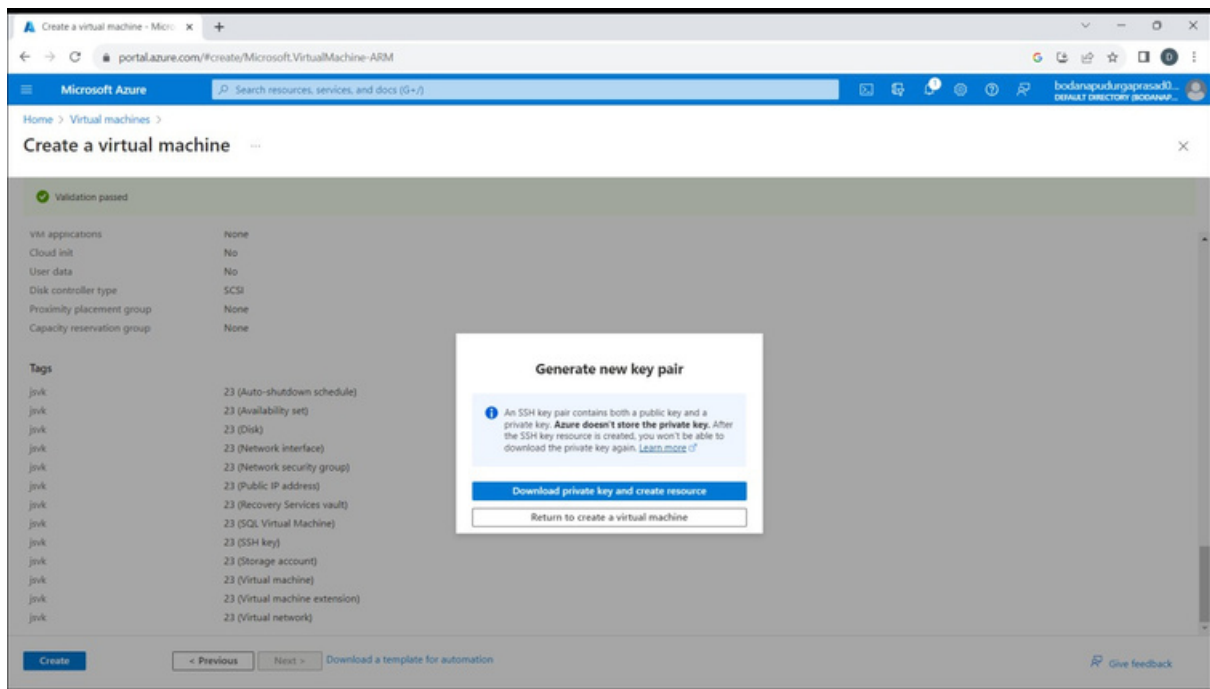
User data:

Disk controller type:

Proximity placement group:

Capacity reservation group:

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The screenshot displays the 'Overview' page for a virtual machine named 'ace' in the Microsoft Azure portal. The left-hand navigation pane includes sections for 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, and Operations. The main content area is divided into 'Essentials' and 'Properties' tabs. The 'Essentials' tab shows key information: Resource group (prasad), Status (Running), Location (Central India (Zone 1)), Subscription (Azure for Students), Subscription ID (0c5019e4-dc84-4824-94bf-20e44cd926bf), Availability zone (1), Tags (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), and Health state (1+). The 'Properties' tab provides detailed specifications for the virtual machine, including Computer name (ace), Operating system (Linux (ubuntu 20.04)), Image publisher (canonical), Image offer (0001-com-ubuntu-server-focal), Image plan (20_04-lts-gen2), VM generation (V2), VM architecture (x64), Agent status (Ready), Agent version (2.9.1.1), and Host group (None). The 'Networking' section shows the Public IP address (40.81.237.63) and the Network interface (ace008_x1). The 'Size' section shows the Size (Standard D2s v3), vCPUs (2), and RAM (8 GiB).

The screenshot displays the 'Connect' page for the virtual machine 'ace' in the Microsoft Azure portal. The left-hand navigation pane is identical to the Overview page. The main content area shows the 'Connect' section with a 'Connecting using' dropdown set to 'Public IP address | 40.81.237.63'. Below this, the 'Admin username' is 'azureuser', the 'Port' is '22', and the 'Just-in-time policy' is 'Unsupported by plan'. The 'Recommended' section offers two options: 'SSH using Azure CLI' and 'Native SSH'. The 'SSH using Azure CLI' option is highlighted, showing it is 'Quickly connect in browser. Supports Azure AD authentication. Private key not required.' and provides the 'Public IP address (40.81.237.63)'. The 'Native SSH' option is also shown, stating 'No additional software needed. Private key required for connection. Best for those with existing SSH tools.' and provides the 'Public IP address (40.81.237.63)'. Both options have a 'Select' button. At the bottom, there is a link to 'More ways to connect (3)'.

