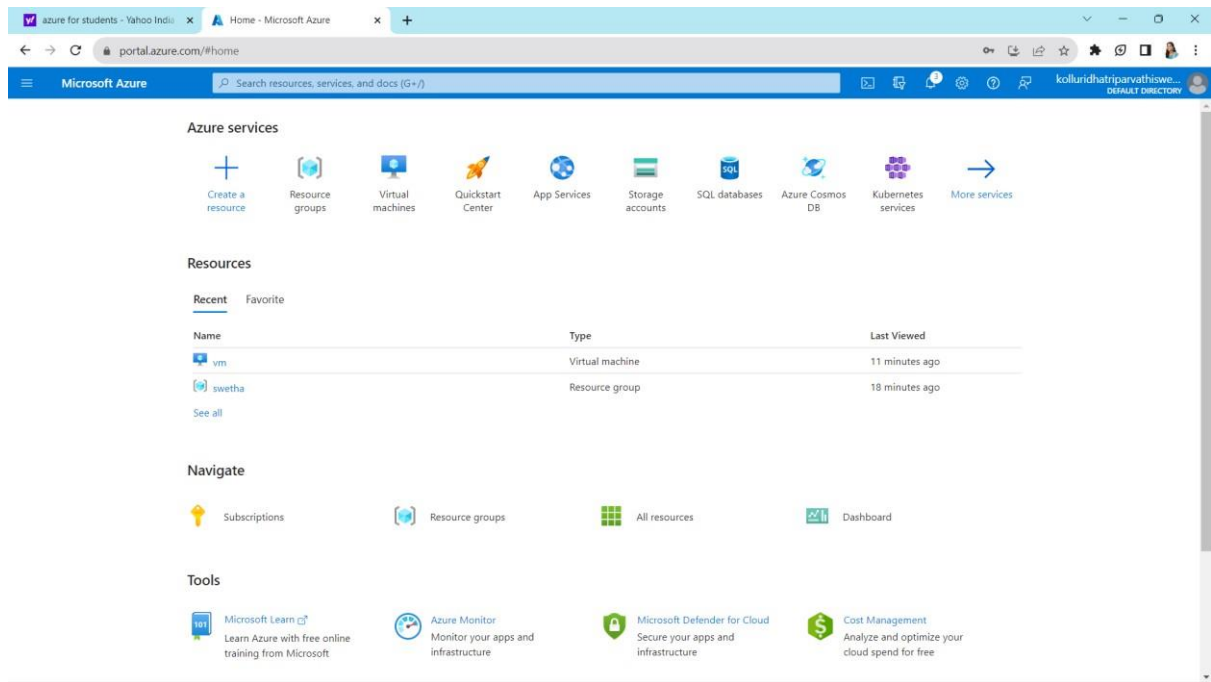


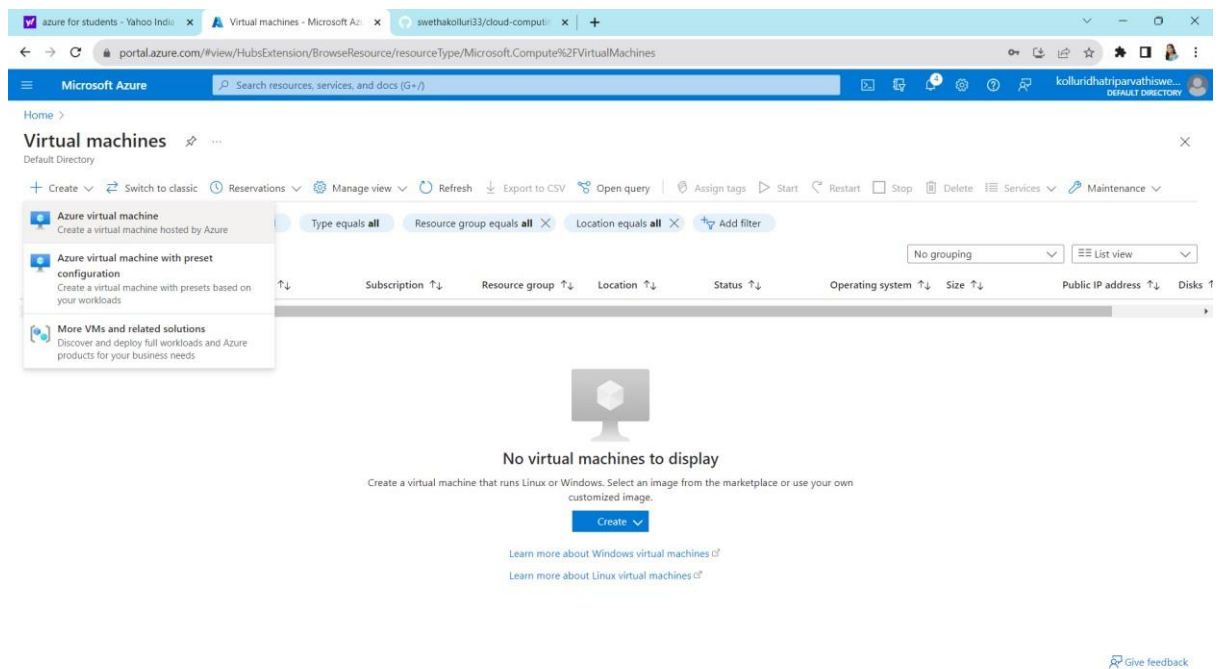
## EXPERIMENT 12

Demonstrate Infrastructure as a Service (IaaS) by creating a Virtual Machine using a Public Cloud Service Provider (Azure), configure with required memory and CPU. first we can sign in into Azure

home page will appears like this now click on virtual machines



Now click on virtual machines select azure virtual machine and then click on create



## Fill up the requirements

Select password and give a strong password after that click on next

Home > Virtual machines >

## Create a virtual machine

Size \*  [See all sizes](#)

**Administrator account**

Authentication type ☐ SSH public key ☒ Password

Username \*

Password \*

Confirm password \*

**Inbound port rules**

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports \* ☐ None ☒ Allow selected ports

Select inbound ports \*

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

Click on next

Home > Virtual machines >

## Create a virtual machine

**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 virtual machine**

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 <a href="#">Attach an existing disk</a>					

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

[go.microsoft.com/fwlink/?linkid=2243631](https://go.microsoft.com/fwlink/?linkid=2243631)

Check the details and click on next

azure for students - Yahoo India xCreate a virtual machine - Micro xswethakoluri33/cloud-computi x

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

Microsoft AzureSearch resources, services, and docs (G+)

kolluridhatiparvathiwe...  
DEFAULT DIRECTORY

Home > Virtual machines >

Create a virtual machine

Public inbound ports \*

None

Allow selected ports

Select inbound ports \*

SSH (22)

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

Enable accelerated networking

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.

Review > create

< Previous

Next: Management >

Give feedback

Click  
on next

The screenshot shows the 'Create a virtual machine' page in the Microsoft Azure portal, specifically the 'Identity' tab. The page is titled 'Create a virtual machine' and includes a breadcrumb 'Home > Virtual machines >'. A green checkmark indicates 'your subscription is protected by Microsoft Defender for Cloud basic plan.' The 'Identity' section has a checkbox for 'Enable system assigned managed identity' which is unchecked. The 'Azure AD' section has a checkbox for 'Login with Azure AD' which is unchecked, with a note about RBAC role assignment. The 'Auto-shutdown' section has a checkbox for 'Enable auto-shutdown' which is unchecked. The 'Backup' section has a checkbox for 'Enable backup' which is unchecked. The 'Guest OS updates' section has a dropdown for 'Patch orchestration options' set to 'Image default', with a note that some options are not available for this image. At the bottom, there are buttons for 'Review + create', '< Previous', and 'Next : Monitoring >', along with a 'Give feedback' link.

Click on next

The screenshot shows the 'Create a virtual machine' page in the Microsoft Azure portal, specifically the 'Monitoring' tab. The page is titled 'Create a virtual machine' and includes a breadcrumb 'Home > Virtual machines >'. The 'Monitoring' tab is selected, showing options for 'Alerts' and 'Diagnostics'. Under 'Alerts', there is a checkbox for 'Enable recommended alert rules' which is unchecked. Under 'Diagnostics', there are three radio button options for 'Boot diagnostics': 'Enable with managed storage account (recommended)' (selected), 'Enable with custom storage account', and 'Disable'. There is also a checkbox for 'Enable OS guest diagnostics' which is unchecked. At the bottom, there are buttons for 'Review + create', '< Previous', and 'Next : Advanced >', along with a 'Give feedback' link.

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Click

on next

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

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

Proximity placement group

Proximity placement groups allow you to group Azure resources physically closer together in the same region. [Learn more](#)

Proximity placement group

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

Give some names and values and click on next

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
cloud	123	All resources
computing	456	All resources
big data	789	13 selected
		13 selected

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

Click

on create which is on left side bottom

Microsoft Azure

Home > Virtual machines >

## Create a virtual machine

Validation passed

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

Cost given below is an estimate and not the final price. Please use [Pricing calculator](#) for all your pricing needs.

Price

1 X Standard D2s v3  
by Microsoft  
[Terms of use](#) | [Privacy policy](#)

Subscription credits apply ⓘ  
**10.6022 INR/hr**  
[Pricing for other VM sizes](#)

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) 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 (c) 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:

[Create](#) [Previous](#) [Next](#) [Download a template for automation](#) [Give feedback](#)

Click on got resources

Microsoft Azure

Home >

## CreateVm-canonical.0001-com-ubuntu-server-focal-2-20231018104528 | Overview

Deployment

Search

Overview Inputs Outputs Template

Delete Cancel Redeploy Download Refresh

**Your deployment is complete**

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-f... Start time: 18/10/2023, 10:53:38 am  
Subscription: Azure for Students Correlation ID: 82b18ccb-5cb2-4421-ab19-c6efc956484b  
Resource group: swetha

Deployment details

Resource	Type	Status	Operation details
virtualmachine	Microsoft.Compute/virtualMachines	OK	<a href="#">Operation details</a>
virtualmachine780	Microsoft.Network/networkInterfa...	Created	<a href="#">Operation details</a>
virtualmachine-nsg	Microsoft.Network/networkSecuri...	OK	<a href="#">Operation details</a>
virtualmachine-ip	Microsoft.Network/publicIpAddre...	OK	<a href="#">Operation details</a>

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](#)

Give feedback  
Tell us about your experience with deployment

**Cost Management**  
Get notified to stay within your budget and prevent unexpected charges on your bill.  
[Set up cost alerts >](#)

**Microsoft Defender for Cloud**  
Secure your apps and infrastructure  
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**Work with an expert**  
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.  
[Find an Azure expert >](#)

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Click



It shows all you listed before

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo and a search bar. The main content area displays the details of a virtual machine named 'virtualmachine'. The left sidebar contains a navigation menu with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Connect, Bastion, Networking, and Settings. The main content area is divided into sections: Essentials, Properties, Monitoring, Capabilities (7), Recommendations, and Tutorials. The Essentials section shows the resource group 'swetha', status 'Running', location 'South India', subscription 'Azure for Students', and subscription ID '5d0b2d9d-e218-4eba-a8bc-08aba99c9622'. The Properties section shows the computer name 'virtualmachine', 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', and agent version '2.9.1.1'. The Networking section shows the public IP address '20.235.162.247' and the virtual network/subnet 'vm-vnet/default'. The Size section shows the size 'Standard D2s v3'.

Go to home created virtual machine is appears at home page

The screenshot shows the Microsoft Azure portal home page. The top navigation bar includes the Microsoft Azure logo and a search bar. The main content area displays the 'Azure services' section with icons for Create a resource, Virtual machines, Resource groups, Quickstart Center, App Services, Storage accounts, SQL databases, Azure Cosmos DB, Kubernetes services, and More services. Below this is the 'Resources' section, which has a 'Recent' tab selected. The 'Recent' tab shows a table of resources:

Name	Type	Last Viewed
virtualmachine	Virtual machine	a minute ago
swetha	Resource group	3 minutes ago
vm	Virtual machine	57 minutes ago

Below the table is a 'Navigate' section with icons for Subscriptions, Resource groups, All resources, and Dashboard. At the bottom is a 'Tools' section with icons for Microsoft Learn, Azure Monitor, Microsoft Defender for Cloud, and Cost Management.