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Practice: Impact Training

Designation: Trainee

Azure – Virtual Machine

1. Click on Virtual machines

The screenshot shows the Microsoft Azure portal homepage. At the top, there is a banner with three cards: "Take a free online course on Microsoft Learn", "Watch a demo and attend a live Q&A", and "Start a project with Quickstart Center". To the right of the banner, the "Virtual machines" section is visible, featuring a "Create" button and a "View" button. Below this, there is a "Description" section with text about creating a virtual machine and links to "Free training from Microsoft" and "Useful links". At the bottom of the screenshot, the Windows taskbar is visible with various pinned icons and the URL "https://portal.azure.com/#blade/HubsExtension/BrowseResourceBlade/resourceType/Microsoft.Compute%2FVirtualMachines".

2. Click on create and then on Azure virtual machine.

Microsoft Azure Upgrade Search resources, services, and docs (G+ /)

Virtual machines ...

Azure virtual machine Create a virtual machine hosted by Azure

Azure virtual machine with preset configuration Create a virtual machine with presets based on your workloads

More VMs and related solutions Discover and deploy full workloads and Azure products for your business needs

No virtual machines to display

Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.

+ Create Give feedback

3. Create a new resource group named sharanvm and then ok and on next.

Microsoft Azure Upgrade Search resources, services, and docs (G+ /)

Virtual machines ...

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Project details

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

Subscription * Free Trial

Resource group * (New) sharanvm Create new

Instance details

Virtual machine name * backendServer

Region * (Asia Pacific) Central India

Availability options Availability zone

< Previous Next : Disks > Review + create Give feedback

4. Click on Enable basic plan for free and go next to monitoring.

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Configure management options for your VM.

Microsoft Defender for Cloud

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

Enable basic plan for free This will apply to every VM in the selected subscription

Identity

Enable system assigned managed identity

Microsoft Entra ID

< Previous Next : Monitoring > Review + create Give feedback

5. Under monitoring, click enable with managed storage account and click next to advanced.

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

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

Health

< Previous Next : Advanced > Review + create Give feedback

6. Click on next to go to tags.

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

Microsoft Azure Upgrade Search resources, services, and docs (G+)

sharans0718@gmail.com DEFAULT DIRECTORY (SHARANS...)

Home > Virtual machines > Create a virtual machine

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Add additional configuration, agents, scripts or applications via virtual machine extensions or cloud-init.

Extensions Extensions provide post-deployment configuration and automation.

Select an extension to install

VM applications VM applications contain application files that are securely and reliably downloaded on your VM after deployment. In addition to the application files, an install and uninstall script are included in the application. You can easily add or remove applications on your VM after create. [Learn more](#)

Select a VM application to install

< Previous Next : Tags > Review + create Give feedback

26°C Rain showers ENG 10:21 AM IN 11/26/2024

7. Click on Review + create.

Create a virtual machine

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

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
		14 selected

< Previous Next : Review + create Review + create

https://go.microsoft.com/fwlink/?linkid=873112

Type here to search 26°C Rain showers ENG 10:21 AM IN 11/26/2024

Notifications

More events in the activity log → Dismis all

✓ Update contact email Contact email has been successfully updated. 9 minutes ago

₹16,700.00 credit remaining Subscription 'Free Trial' has a remaining credit of ₹16,700.00. Upgrade to a Pay-As-You-Go subscription. 9 minutes ago

< Previous Next > **Create** Download a template for automation Give feedback

https://portal.azure.com/#blade/Microsoft_Azure_ActivityLog/ActivityLogblade/queryInputs/%7B"user%3A%40me%7D"

Type here to search 26°C Rain showers ENG 10:22 AM IN 11/26/2024

8. A new key pair will be generated.

Validation passed

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

Basics Disks Networking Management

Generate new key pair

An SSH key pair contains both a public key and a private key. **Azure doesn't store the private key.** After the SSH key resource is created, you won't be able to download the private key again. [Learn more](#)

Download private key and create resource

Return to create a virtual machine

TERMS

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

< Previous Next > Create

Download a template for automation Give feedback

More events in the activity log → Dismiss all

Update contact email Contact email has been successfully updated. 9 minutes ago

₹16,700.00 credit remaining Subscription 'Free Trial' has a remaining credit of ₹16,700.00.

Upgrade to a Pay-As-You-Go subscription. 9 minutes ago

9. Your deployment will get completed and virtual machine will be created.

Deployment

Search

Overview

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-focal-2-2024112610184... Start time: 11/26/2024 10:18:40 AM Correlation ID: 3e0f8a32aec-0117-485d-b251-e161d6d7b5af

Inputs Outputs Template

Your deployment is complete

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

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. Go to Microsoft Defender for Cloud >

Free Microsoft tutorials

Start learning today >

More events in the activity log → Dismiss all

Deployment succeeded Deployment 'CreateVm-canonical.0001-com-ubuntu-server-focal-2-20241126101845' to resource group 'sharanvm' was successful. Go to reso... Pin to dash... a few seconds ago

Update contact email Contact email has been successfully updated. 10 minutes ago

₹16,700.00 credit remaining Subscription 'Free Trial' has a remaining credit of ₹16,700.00. Upgrade to a Pay-As-You-Go subscription. 10 minutes ago

10. Our virtual machine is deployed successfully and will show in the dashboard, click on it.

The screenshot shows the Microsoft Azure Virtual Machines dashboard. At the top, there's a search bar and a notifications panel with a message about deployment success. Below that is a table listing one VM: 'backendServer' from 'Free Trial' in 'sharanvm' resource group, located in Central India, running on Linux. The table has columns for Name, Subscription, Resource group, Location, Status, and Operating system. The status is 'Running'. On the right side, there's a 'Notifications' section with several messages, including deployment success, contact email updates, and credit remaining notifications. The bottom of the screen shows a Windows taskbar with various icons and a weather widget.

11. Under Diagnose and solve problems go to connect, and click on connect

The screenshot shows the Microsoft Azure Virtual Machine details page for 'backendServer'. The left sidebar has a 'Diagnose and solve problems' section with options like Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, and Monitoring. The main area shows the VM's configuration under the 'Essentials' tab, including Resource group (sharanvm), Status (Running), Location (Central India (Zone 1)), Subscription (Free Trial), Subscription ID (b8a32aec-0117-485d-b251-e161d6d7b5af), Availability zone (1), Operating system (Linux (ubuntu 20.04)), Size (Standard B1s (1 vcpu, 1 GiB memory)), Public IP address (20.197.36.199), Virtual network/subnet (backendServer-vnet/default), DNS name (Not configured), and Health state. The right side has a 'Notifications' panel with deployment success, contact email updates, and credit remaining notifications. The bottom of the screen shows a Windows taskbar with various icons and a weather widget.

12. Click on connect and under SSH using Azure CLI click select, and click on configure+connect.

SSH using Azure CLI

System assigned managed identity

Microsoft Entra ID SSH Login Extension

Virtual machine user or administrator login

Port 22 access

Public IP address: 20.197.36.199

Configure + connect

Notifications

Deployment succeeded

Update contact email

₹16,700.00 credit remaining

13. Choose Powershell and continue.

SSH using Azure CLI

Configure prerequisites for SSH using Azure CLI

Prerequisites configured

System assigned managed identity

Welcome to Azure Cloud Shell

Bash

PowerShell

Notifications

Deployment succeeded

Update contact email

₹16,700.00 credit remaining

14. Select no storage account required and move with free trial.

SSH using Azure CLI

Configure prerequisites for SSH using Azure CLI

Prerequisites configured

System assigned managed identity

Getting started

No storage account required

Subscription: Free Trial

Apply

15. Give yes to continue for connection.

```
Requesting a Cloud Shell. Succeeded.
Connecting terminal...

Welcome to Azure Cloud Shell

Type "az" to use Azure CLI
Type "help" to learn about Cloud Shell

Subscription used to launch your CloudShell b8a32aec-0117-485d-b251-e161d6d7b5af is not registered to Microsoft CloudShell Namespace. Please follow these instructions "https://aka.ms/RegisterCloudShell" to register.
In future, unregistered subscriptions will have restricted access to CloudShell service.

Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.
sharan [ ~ ]$ az ssh vm --resource-group sharanvm --vm-name backendServer --subscription b8a32aec-0117-485d-b251-e161d6d7b5af
OpenSSH_8.9p1, OpenSSL 1.1.1k FIPS 25 Mar 2021
The authenticity of host '20.197.36.199 (20.197.36.199)' can't be established.
ED25519 key fingerprint is SHA256:vQEYIEGehrGUJUWaNqnoGv2GqocbutIHipoIisFXq5k.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

16. In the command line give sudo su and enter.

Memory usage: 42% IPv4 address for eth0: 10.0.0.4
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.
34 updates can be applied immediately.
12 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

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.

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.

sharans0718@gmail.com@backendServer:~\$ sudo su
root@backendServer:/home/sharans0718#

Notifications

- Deployment succeeded (16 minutes ago)
- Update contact email (16 minutes ago)
- ₹16,700.00 credit remaining (16 minutes ago)

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17. create a sample text file.

34 updates can be applied immediately.
12 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

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;
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applicable law.

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

sharans0718@gmail.com@backendServer:~\$ sudo su
root@backendServer:/home/sharans0718# ls
root@backendServer:/home/sharans0718# touch sample.txt
root@backendServer:/home/sharans0718# ls
sample.txt
root@backendServer:/home/sharans0718#

Notifications

- Deployment succeeded (5 minutes ago)
- Update contact email (16 minutes ago)
- ₹16,700.00 credit remaining (16 minutes ago)

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18. Force stop the virtual machine.

The screenshot shows the Microsoft Azure portal interface. The main content area displays a confirmation dialog titled "Stop this virtual machine" asking if the user wants to stop the "backendServer". Below the dialog, there is a list of resource details for the VM, including its subscription, ID, operating system, and network configuration. To the right of the main content, a "Notifications" sidebar is visible, showing several recent events such as deployment successes and credit updates. The bottom of the screen shows the Windows taskbar with various pinned icons.

19. Apply force delete and click on all associated resource type and click on delete.

The screenshot shows the Microsoft Azure portal interface. The main content area displays a confirmation dialog titled "Delete backendServer" asking if the user wants to apply force delete. It lists three associated resources: OS disk, Network interfaces, and Public IP addresses, each with a checkbox for "Delete with VM". Below the list is a checkbox for accepting the deletion terms. To the right of the main content, a "Notifications" sidebar is visible, showing recent events such as successful stops and deployment successes. The bottom of the screen shows the Windows taskbar with various pinned icons.

20. Your virtual machine will be successfully deleted.

The screenshot shows the Microsoft Azure portal interface. The user is viewing the details of a virtual machine named 'backendServer'. In the top right corner of the main content area, there is a 'Notifications' panel. This panel displays three recent events:

- Successfully deleted virtual machine 'backendServer'**: A message stating that the virtual machine 'backendServer' and any selected resource(s) have been successfully deleted. This event occurred 'a minute ago'.
- Successfully stopped virtual machine**: A message stating that the virtual machine 'backendServer' was successfully stopped. This event occurred '3 minutes ago'.
- Deployment succeeded**: A message stating that the deployment 'CreateVm-canonical.0001-com-ubuntu-server-focal-2-20241126101845' to resource group 'sharanvm' was successful.

The main content area shows the 'Overview' tab for the 'backendServer' VM. The 'Essentials' section provides detailed information about the VM's configuration, including its resource group ('sharanvm'), status ('Stopped (deallocated)'), location ('Central India (Zone 1)'), subscription ('Free Trial'), and operating system ('Linux'). The VM has a public IP address of 20.197.36.199 and is associated with the virtual network 'backendServer-vnet/default'. The DNS name is listed as 'Not configured'.