

ASSIGNMENT-----SOLUTION SUBMISSION
ON
AZURE ANALYTICS
BY

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BATCH:DXC-262-ANALYTICS-B12-
AZURE

TRAINING UNDER : MANIPAL PRO
LEARN

DATE OF SUBMISSION : 08-06-2022

EMPLOYEE DOMAIN - AZURE
ANALYTICS

ROLL NO: DXC262AB12021

COMPANY – DXC TECHNOLOGY

TRAINER NAME – MR. AJAY KUMAR

NO OF QUESTIONS :10

Assignment - 8th June 2022:

-
1. Explain the steps with screenshots how to create Blob storage in Azure cloud?
 2. Explain the steps with screenshots how to create Virtual machine & how to connect from
 - (i) Local Computer - CMD method ?
 - (ii) Using Azure cloud Shell?
 - (iii) Also using Azure Bastion ?
 3. Explain the steps with screenshots how to create Data factory ?
 4. Explain the steps with screenshots how to copy data from source blob to destination blob ?
 5. Explain the steps with screenshots how to create Virtual Network in Azure ?
 6. Explain the steps with screenshots how to create azure synapse analytics ?
 7. Explain the steps with screenshots how to create Azure storage account?
 8. Explain the steps with screenshots how to create upload data into Azure Blobs ?
 9. Explain the steps with screenshots how to create connect SQL Database in Azure ?
 10. Explain the steps with screenshots how to insert data into azure SQL database ?

Please create a word / pdf document, and send it to : avyuktitraining1@gmail.com

INTRODUCTION

This Assignment is given by manipal pro learn team on the basis of the training done in the forenoon session of this morning. The main objective behind this assignment is to master the theory and enhance knowledge over creating the cloud storage , data factory, storage blobs , data pipelines and data synapsis etc..

There are 10 questions and they are of easy to moderately difficult level. All the questions have been focused on what the trainer taught in the earlier sessions.All the demonstrations have been done successfully and documented.

This assignment gave me immense confidence in mastering the domain that has been assigned to me. Special thanks tu Unext team for providing the lab access.

SOLUTIONS

1. Explain the steps with screenshots how to create Blob storage in Azure cloud?

A:

Step1:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'Subscription Details | Nuvepro', 'Storage accounts - Microsoft Azure', and 'Inbox (10,611) - saikiranachie14'. The main content area is titled 'Storage accounts' under 'Microsoft Azure'. A search bar at the top right contains the text 'cloud storage'. Below the title, there are several filter and search options: 'All' (selected), 'Services (13)', 'Marketplace (10)', 'Documentation (28)', 'Resources (0)', 'Resource Groups (0)', and 'Azure Active Directory (0)'. A 'Create' button is visible. The main list displays various services under 'Services': 'Storage accounts' (highlighted with a yellow box), 'Cloud services (classic)', 'Storage accounts (classic)', 'Storage browser (preview)', and 'Storage Sync Services'. Under 'Marketplace', there are links to 'NetApp Cloud Volumes ONTAP – Cloud Storage', 'Flexify.IO - Multi-Cloud Storage', 'WebDrive Desktop for Cloud Storage', 'StoneFly Cloud Storage', 'Modern Workplace Cloud Storage | Easy Intune Storage', 'R&S® Trusted Gate Storage Encryption Solution for OneDrive, ...', 'Pure Cloud Block Store™ (subscription)', and 'Cirrus M365 Backup'. Under 'Documentation', there are links to 'Introduction to Azure Storage - Cloud storage on Azure | Microsoft...', 'Cloud storage to build highly secure, durable, scalable apps with A...', 'Introduction to Blob (object) storage - Azure Storage', and 'Azure Cloud Shell overview | Microsoft Docs'. At the bottom, a note says 'Continue searching in Azure Active Directory'.

Step 2:

The screenshot shows the 'Storage accounts' blade within the Microsoft Azure portal. The top navigation bar includes tabs for 'Subscription Details | Nuvepro', 'Storage accounts - Microsoft Azure', and 'Inbox (10,611) - saikiranachie14'. The main content area is titled 'Storage accounts' under 'Microsoft Azure'. A search bar at the top right contains the text 'cloud storage'. Below the title, there are several filter and search options: '+ Create', 'Manage view', 'Refresh', 'Export to CSV', 'Open query', 'Assign tags', 'Delete', 'Filter for any field...', 'Subscription == all', 'Resource group == all', 'Location == all', and '+ Add f'. The main list displays a table with columns: 'Name' (sorted by ascending order), 'Type' (sorted by ascending order), and 'Kind' (sorted by ascending order). The table currently has no data rows.

Step3:

The screenshot shows the 'Create a storage account' wizard in the Azure portal. The 'Basics' tab is selected. The 'Subscription' dropdown is set to 'Azure-DXC262AB12Lab'. The 'Resource group' dropdown is set to 'dxctrain12' with a 'Create new' option below it. The 'Instance details' section includes fields for 'Storage account name' (set to 'dxctrain123'), 'Region' (set to '(US) East US'), and 'Performance' (set to 'Standard: Recommended for most scenarios (general-purpose v2 account)'). Below these fields are buttons for 'Review + create' (highlighted in yellow), '< Previous', and 'Next : Advanced >'.

Step 4:

The screenshot shows the 'Create a storage account' wizard in the Azure portal. The 'Review + create' tab is selected. A green banner at the top says 'Validation passed!'. The page displays configuration settings: Blob soft delete (Enabled), Blob retention period in days (7), Container soft delete (Enabled), Container retention period in days (7), File share soft delete (Enabled), File share retention period in days (7), Versioning (Disabled), Blob change feed (Disabled), and Version-level immutability support (Disabled). The 'Encryption' section shows: Encryption type (Microsoft-managed keys (MMK)), Enable support for customer-managed keys (Blobs and files only), and Enable infrastructure encryption (Disabled). At the bottom are buttons for 'Create' (highlighted in yellow), '< Previous', 'Next >', and 'Download a template for automation'.

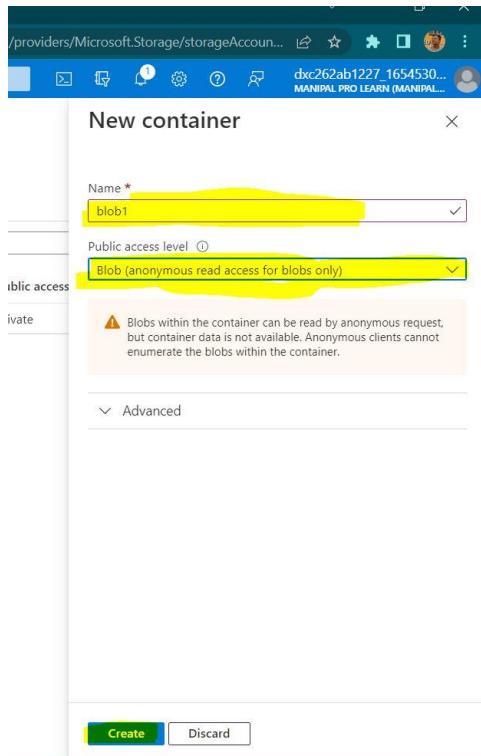
Step5:

The screenshot shows the Microsoft Azure Deployment Overview page for a deployment named "dxctrain123_1654684826842". The main message is "Your deployment is complete". Deployment details include: Name: dxctrain123_1654684826842, Subscription: Azure-DXC262A812Lab, Resource group: dxctrain12. The deployment started at 6/8/2022, 4:10:35 PM with a Correlation ID: ecb1243d-0c72-4d96-978b-1bf785c68d23. A "Go to resource" button is visible.

Step6:

The screenshot shows the Microsoft Azure Storage account containers page for the "dxctrain123" storage account. The "Containers" section is selected. It lists a single container named "\$logs" last modified on 6/8/2022, 4:11:07 PM. The left sidebar includes sections for Overview, Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, Storage browser (preview), Data storage (Containers, File shares, Queues, Tables), Security + networking (Networking, Azure CDN, Access keys), and a search bar.

Step7:



Step 8:

The screenshot shows the 'Containers' list page. The top navigation bar includes a search bar, a refresh button, and other navigation icons. The main area displays a table of containers. The table has columns for Name, Last modified, Public access level, and Lease state. Two containers are listed: '\$logs' (Last modified: 6/8/2022, 4:11:07 PM, Private, Available) and 'blob1' (Last modified: 6/8/2022, 4:13:46 PM, Blob, Available). A 'Show deleted containers' checkbox is located at the top right of the table area.

Name	Last modified	Public access level	Lease state
\$logs	6/8/2022, 4:11:07 PM	Private	Available
blob1	6/8/2022, 4:13:46 PM	Blob	Available

2. Explain the steps with screenshots how to create Virtual machine & how to connect from

(i) Local Computer - CMD method ?

(ii) Using Azure cloud Shell?

(iii) Also using Azure Bastion ?

A:

Step1:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'Subscription Details | Nuvepro', 'Virtual machines - Microsoft Azure', and 'Inbox (10,612) - saikirananche14'. The URL in the address bar is 'portal.azure.com/#blade/HubsExtension/BrowseResource/resourceType/Microsoft.Compute%2FVirtualMachines'. The main content area is titled 'Virtual machines' and shows a search bar with 'virtual machines'. Below the search bar, there are several filter and sorting options: 'All' (selected), 'Services (21)', 'Marketplace (20)', 'Documentation (28)', and 'Azure Active Directory (0)'. A 'Create' button and a 'Switch to classic' link are also present. The main list displays items under 'Services': 'Virtual machines' (highlighted with a yellow box), 'Virtual machines (classic)', 'Reservations', and 'SQL virtual machines'. Under 'Marketplace', there are several pre-built virtual machine configurations: 'KoçSistem Azure Virtual Machines Management', 'Managed Services for Azure Virtual Machines', 'Eleven01 Virtual Machine', and 'Virtual machine'. The right side of the screen shows a sidebar with various service icons and names.

Step2:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar has 'Microsoft Azure' and a search bar. Below it, the 'Virtual machines' section is visible with the title 'Virtual machines'. A yellow box highlights the '+ Create' button. Other buttons include 'Switch to classic', 'Reservations', and filters for 'Subscription' and 'Type'. The main area shows a table header for 'Name ↑↓' and 'Type ↑↓'.

Step3:

The screenshot shows the 'Create' dropdown menu in the Azure Virtual machines section. The first option, 'Azure virtual machine', is highlighted with a yellow box. It includes a description: 'Create a virtual machine hosted by Azure'. Below it are other options: 'Azure virtual machine with preset configuration', 'Azure Arc virtual machine', and 'Azure VMware Solution virtual machine'. Each option has a small icon and a brief description.

Step4:

Home > Virtual machines >

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-DXC262AB12Lab

Resource group * ⓘ dxctrain12

[Create new](#)

Instance details

Virtual machine name * ⓘ dxvmbysai12

Region * ⓘ (US) East US

Availability options ⓘ No infrastructure redundancy required

Security type ⓘ Standard

Image * ⓘ Ubuntu Server 20.04 LTS - Gen2

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

Azure Spot instance ⓘ

Size * ⓘ Standard_D2s_v3 - 2 vcpus, 8 GiB memory (Price unavailable)

[See all sizes](#)

Review + create | [< Previous](#) | [Next : Disks >](#)

Step5:

Home > Virtual machines >

Create a virtual machine

Note 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 * ⓘ dxvmbysai12_key

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 * ⓘ SSH (22)

Warning 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.

Review + create | [< Previous](#) | [Next : Disks >](#)

Step6:

Home > Virtual machines >

Create a virtual machine

Validation passed

Management

Microsoft Defender for Cloud	Basic (free)
Boot diagnostics	On
Enable OS guest diagnostics	Off
System assigned managed identity	Off
Login with Azure AD	Off
Auto-shutdown	Off
Backup	Disabled
Enable hotpatch	Off
Patch orchestration options	Image Default

Advanced

Extensions	None
VM applications (Preview)	None
Cloud init	No
User data	No
Proximity placement group	None
Capacity reservation group	None

Create

< Previous

Next >

Download a template for automation

Step7:

The screenshot shows a Microsoft Edge browser window with the Azure portal URL in the address bar. The main content area displays a configuration page for a virtual machine. On the left, there's a sidebar with options like 'Basic (free)', 'On Off', 'Off', 'Off', 'Off', 'Disabled', 'Off', and 'Image Default'. Below this is another set of options: 'None', 'None', 'No', 'No', 'None', and 'None'. A central modal dialog box titled 'Generate new key pair' contains an informational message: '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](#)' followed by two buttons: 'Download private key and create resource' (highlighted with yellow) and 'Return to create a virtual machine'.

Step8:

This screenshot shows the 'User data' configuration section of the Azure portal. It includes options for 'Proximity placement group' and 'Capacity reservation group'. At the bottom, there are 'Create' and '<' buttons. Below this, a file named 'dxcvmbysai12_key.pem' is listed with a green background, indicating it is selected or highlighted.

Step9:

canonical.0001-com-ubuntu-server-focal-2-20220608162402 | Overview

Delete Cancel Redeploy Refresh

We'd love your feedback! →

Your deployment is complete

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-f... Start time: 6/8/2022, 4:28:42 PM
Subscription: Azure-DXC262AB12Lab Correlation ID: c4c882f3-0d65-42f7-a96b-812d6ff9f07a
Resource group: dxctrain12

Deployment details (Download)

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

Step10:

Search resources, services, and docs (G+)

canonical-ubuntu-server-focal-2-20220608162402 >

...

Connect ▾ Start Restart Stop Capture Delete

SSH

RDP

Bastion

Status: running

rain12

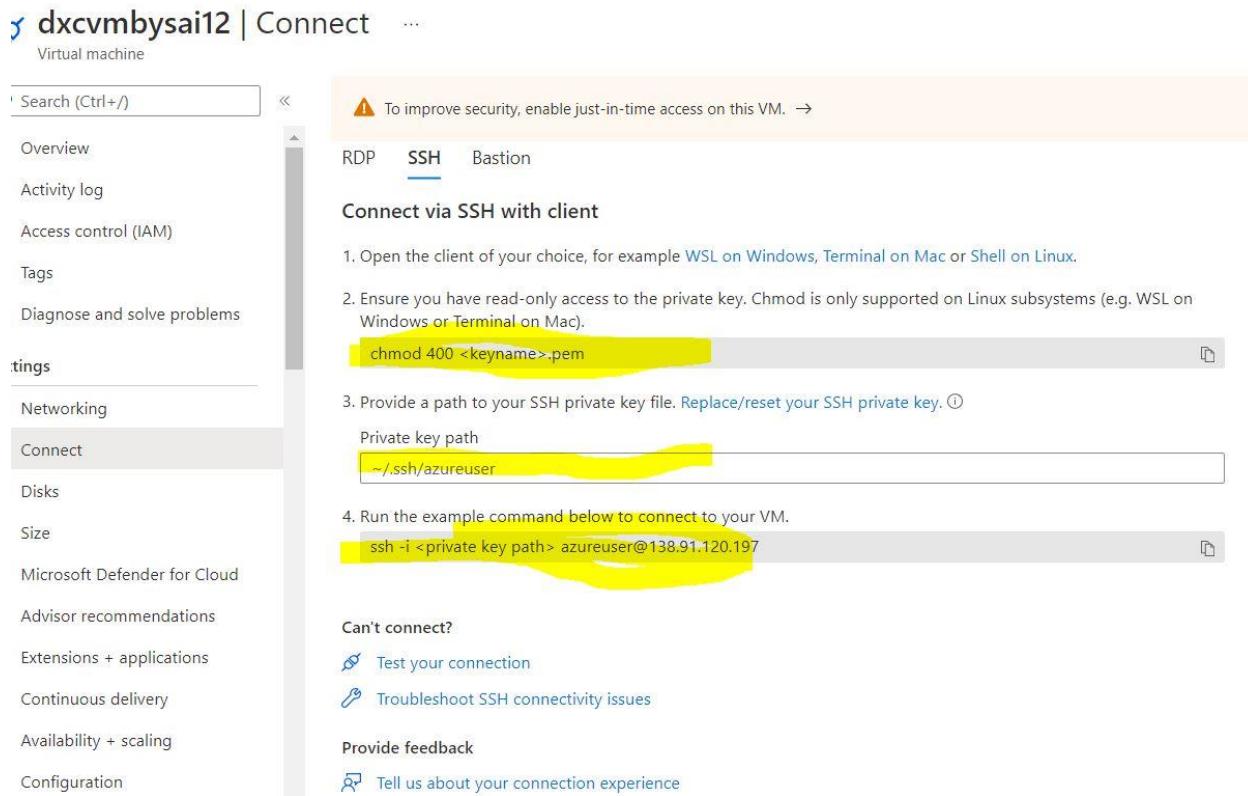
Location: East US

Subscription (move): Azure-DXC262AB12Lab

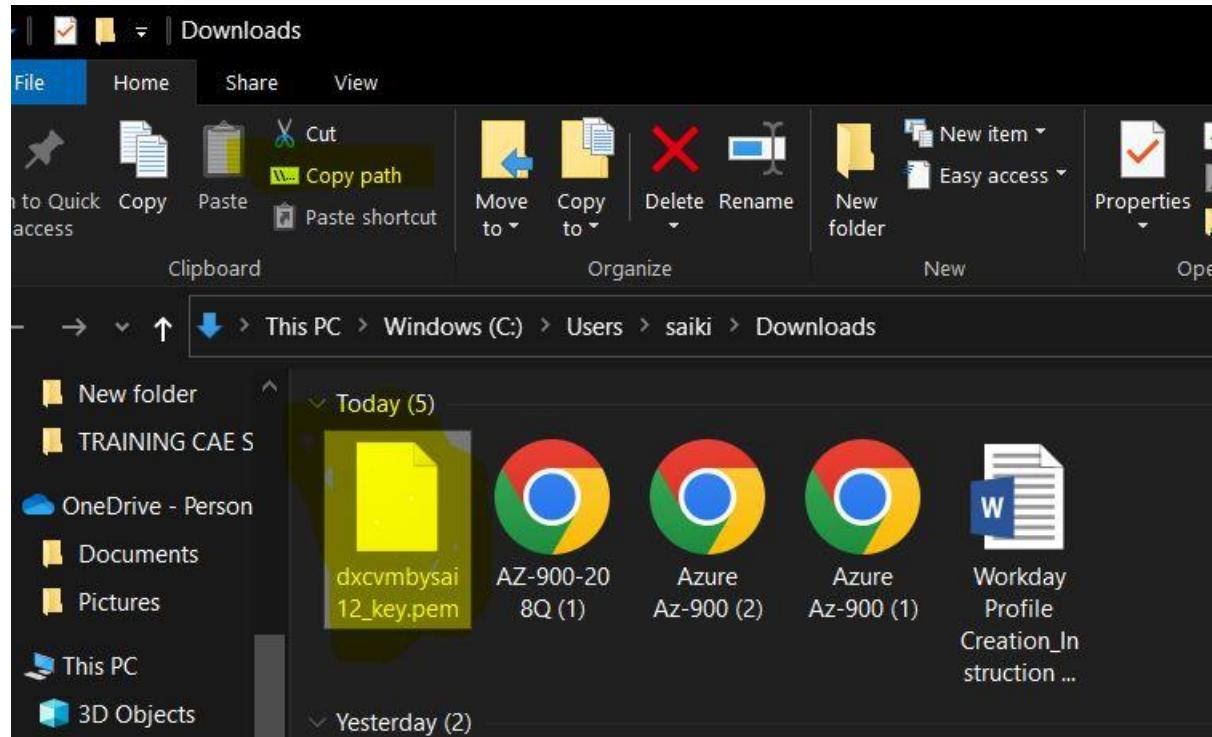
Subscription ID: 3a28cdce-3bd7-4219-858e-23ff20f8b998

Tags (edit): Click here to add tags

Step11:

The screenshot shows the Azure VM Connect interface for a virtual machine named 'dxcvmbysai12'. The 'SSH' tab is selected. A warning message at the top right says, 'To improve security, enable just-in-time access on this VM.' Below it, instructions for connecting via SSH are listed: 1. Open the client of your choice, for example WSL on Windows, Terminal on Mac or Shell on Linux. 2. Ensure you have read-only access to the private key. Chmod is only supported on Linux subsystems (e.g. WSL on Windows or Terminal on Mac). Step 2 has a yellow box around the command 'chmod 400 <keyname>.pem'. 3. Provide a path to your SSH private key file. Replace/reset your SSH private key. 4. Run the example command below to connect to your VM. Step 4 has a yellow box around the command 'ssh -i <private key path> azureuser@138.91.120.197'. To the left, a sidebar lists various management options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Networking, Connect, Disks, Size, Microsoft Defender for Cloud, Advisor recommendations, Extensions + applications, Continuous delivery, Availability + scaling, and Configuration.

Step12:



Step13:

To improve security, enable just-in-time access on this VM. →

RDP **SSH** Bastion

Connect via SSH with client

- Open the client of your choice, for example [WSL on Windows](#), [Terminal on Mac](#) or [Shell on Linux](#).
- Ensure you have read-only access to the private key. Chmod is only supported on Linux subsystems (e.g. WSL on Windows or Terminal on Mac).

```
chmod 400 <keyname>.pem
```

- Provide a path to your SSH private key file. Replace/reset your SSH private key. ⓘ

Private key path

- Run the example command below to connect to your VM.

```
ssh -i "C:\Users\saiki\Downloads\dxcvmbysai12_key.pem" azureuser@138.91.120.197
```

Can't connect?

- Test your connection
- Troubleshoot SSH connectivity issues

Provide feedback

Tell us about your connection experience

Step14:

```
azureuser@dxcvmbysai12: ~
Microsoft Windows [Version 10.0.19042.1526]
(c) Microsoft Corporation. All rights reserved.

C:\Users\saiki>cd ..
C:\Users\saiki>

C:\Users\saiki>ssh -i "C:\Users\saiki\Downloads\dxcvmbysai12_key.pem" azureuser@138.91.120.197
The authenticity of host '138.91.120.197 (138.91.120.197)' can't be established.
ECDSA key fingerprint is SHA256:xxZQbfykU6AiGWD9tdB0IKxvYE5K0xfnNQ3P5bCcE.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '138.91.120.197' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1025-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Wed Jun  8 11:05:18 UTC 2022

System load:  0.01      Processes:          120
Usage of /:   4.8% of  28.90GB  Users logged in:     0
Memory usage: 3%
Swap usage:  0%

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

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.

azureuser@dxcvmbysai12:~$
```

Step15:

The screenshot shows the Azure portal interface for creating a Bastion service. At the top, there are three tabs: RDP, SSH, and Bastion, with Bastion selected. A yellow callout box contains a warning message: "⚠ To improve security, enable just-in-time access on this VM. →". Below the tabs, a blue information icon has a tooltip: "Bastion is an Azure service that allows fast, secure connections to any VM within a VNet. [Learn more](#)". A large green button labeled "Use Bastion" is prominently displayed.

Step16:

Azure Bastion Service enables you to securely and seamlessly RDP & SSH to your VMs in your Azure virtual network, without exposing a public IP on the VM, directly from the Azure portal, without the need of any additional client/app or any piece of software. [Learn more](#)

Create Bastion

Name	<input type="text" value="dxctrain12-vnet-bastion"/>
Resource group	<input type="text" value="dxctrain12"/>
Virtual network	<input type="text" value="dxctrain12-vnet"/>
Public IP address	<input type="text" value="dxctrain12-vnet-ip"/>

© Bastion pricing starts with an hourly base rate. [Learn more](#)

[Create Azure Bastion using defaults](#) [I want to configure Azure Bastion on my own](#)

Step17:

Notifications

More events in the activity log → Dismiss all ▾

! Failed to create a new Bastion ×
Failed to deploy Bastion 4 minutes ago

✓ Deleted the Bastion ×
Successfully deleted the Bastion 'dxctrain12-vnet-bastion'. 11 minutes ago

! Failed to create a new Bastion ×
Failed to deploy Bastion 14 minutes ago

Step18:

Open in mobile CLI / PS

Operating system : Linux (ubuntu 20.04)
Size : Standard D2s v3 (2 vcpus, 8 GiB memory)
Public IP address : 138.91.120.197
Virtual network/subnet : [dxctrain12-vnet/default](#)
DNS name : [Not configured](#)

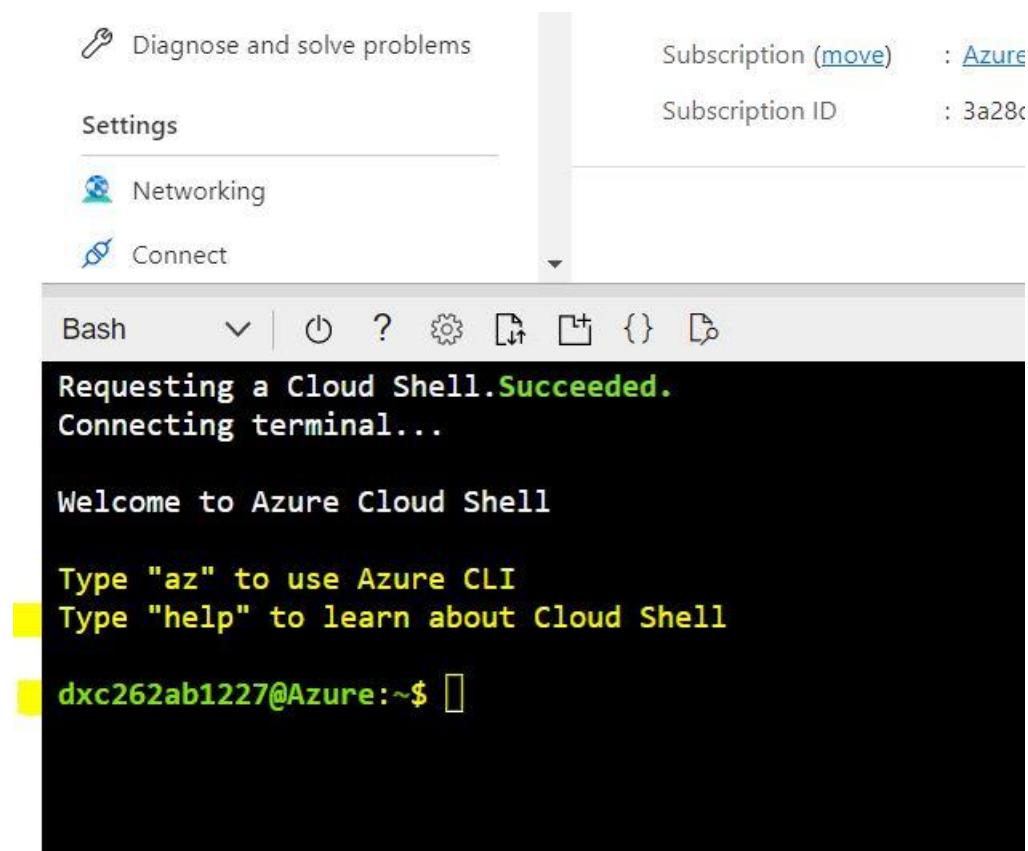
Step19:

The screenshot shows the Azure portal interface. At the top, there's a blue header bar with various icons and the text "e-3bd7-4219-858e-23ff20f8b998/resourceGroups/dxctrain12/providers/Microsoft.Compute/virtualMachin...". Below the header is a navigation bar with icons for back, forward, search, and help, followed by "dxctrain12 MAN". A yellow box highlights the "CLI / PS" tab. The main content area has a yellow header "CLI / PowerShell". It says "The Azure command-line interface (Azure CLI) is a set of commands used to create and manage Azure resources". Below that, it says "Try some of the most-used commands:" and lists "az vm start (Start a stopped VM)". An example is given: "Example of starting a specific VM in your resource group." A code snippet "az vm start --resource-group dxctrain12 --name dxcvmbysai12 --subsri" is shown.

Step20:

The screenshot shows the Azure Cloud Shell interface. On the left, there's a sidebar with "move" history: "(move) : dxctrain12", "Running", "East US", "Azure-DXC262AB12Lab", and "3a28cdce-3bd7-4219-858e-23ff20f8b998". The main area has a yellow header "Try some of the most-used commands:". It lists "az vm start (Start a stopped VM)" with an example: "Example of starting a specific VM in your resource group." A code snippet "az vm start --resource-group dxctrain12 --name dxcvmbysai12 --subsri" is shown. Below that, it says "Example of command with optional parameters. [View details](#)". A modal dialog box is open, asking "You have no storage mounted". It says "Azure Cloud Shell requires an Azure file share to persist files. [Learn more](#)" and "This will create a new storage account for you and this will incur a small monthly cost. [View pricing](#)". It has a field "Subscription" with "Azure-DXC262AB12Lab" and a link "Show advanced settings". At the bottom of the dialog are buttons "Create storage" (highlighted in yellow) and "Close".

Step21:



The screenshot shows the Azure Cloud Shell interface. At the top, there are navigation links: 'Diagnose and solve problems', 'Subscription (move) : Azure', 'Settings', 'Networking', and 'Connect'. Below these are icons for Bash, PowerShell, Jupyter, and Docker. The main terminal window displays the following text:
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

dxc262ab1227@Azure:~\$

3. Explain the steps with screenshots how to create Data factory ?

A:

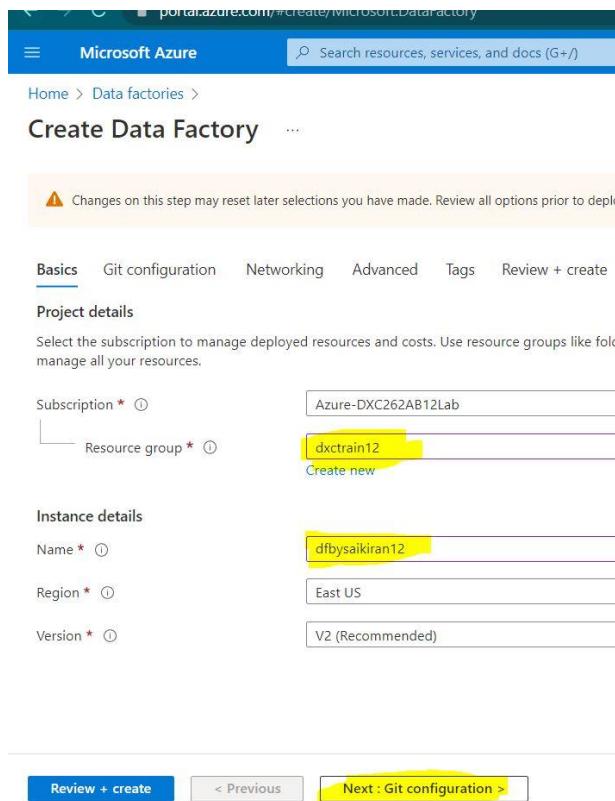
Step1:

The screenshot shows the Microsoft Azure portal interface. The search bar at the top contains the text 'data fact'. Below the search bar, there is a navigation bar with tabs: All, Services (39), Marketplace (5), Documentation (29), Resources (0), and Resources (0). The 'All' tab is selected. The main content area displays a list of services under the 'Services' section, with 'Data factories' highlighted by a yellow box. Other listed services include Azure Database for MySQL servers, Data Catalog, Datadog, Data Shares, Reservations, SQL databases, and Activity log. Below the 'Services' section is a 'Marketplace' section listing extensions like VIAcode Azure Data Factory Monitor, KoçSistem Azure Data Factory Management, and Excel Writer for Azure Data Factory. At the bottom of the page, there is a 'Documentation' section with links to 'Introduction to Data Factory', 'Azure Data Factory Documentation', and 'Transform data by using the Script activity'.

Step2:

The screenshot shows the Microsoft Azure portal interface, specifically the 'Data factories' blade. The top navigation bar has 'Microsoft Azure' and a search bar. Below the navigation bar, the breadcrumb trail shows 'Home > Data factories'. The main content area displays a table with columns for Name, Type, Status, and Last modified. A yellow box highlights the '+ Create' button. The table includes rows for 'Manipal Pro Learn (manipalazure.onmicrosoft.com)' and 'saikirananche14'. There are also filters for 'Subscription == all' and 'Type == .'. The table is sorted by 'Name'.

Step3:



portal.azure.com/#create/microsoft.DataFactory

Microsoft Azure

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

Home > Data factories >

Create Data Factory

Basics Git configuration Networking Advanced Tags Review + create

Project details

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

Subscription * ⓘ Azure-DXC262AB12Lab

Resource group * ⓘ dxctrain12 [highlighted]

Create new

Instance details

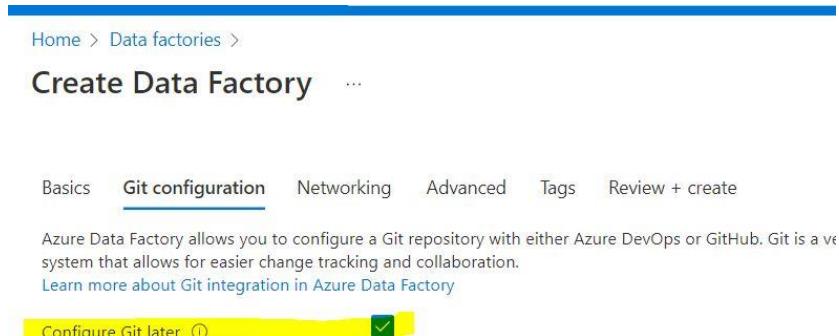
Name * ⓘ dfbysaikiran12 [highlighted]

Region * ⓘ East US

Version * ⓘ V2 (Recommended)

Review + create < Previous **Next : Git configuration >** [highlighted]

Step4:



Home > Data factories >

Create Data Factory

Basics **Git configuration** Networking Advanced Tags Review + create

Azure Data Factory allows you to configure a Git repository with either Azure DevOps or GitHub. Git is a version control system that allows for easier change tracking and collaboration.

Learn more about Git integration in Azure Data Factory

Configure Git later ⓘ [highlighted]

Step5:

Home > Data factories >

Create Data Factory

Validation Passed

Basics Git configuration Networking Advanced Tags Review + create

TERMS
By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Microsoft services listed above; and (b) agree that Microsoft may share my contact, usage and transactional information with other Microsoft provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not discriminate based on race, ethnicity, gender, sexual orientation, or disability. See the [Azure Marketplace Terms](#) for additional details.

Basics

Subscription	Azure-DXC262AB12Lab
Resource group	dxctrain12
Name	dfbysaikiran12
Region	East US
Version	V2 (Recommended)

Networking

Connect via	Public endpoint
-------------	-----------------

Actions

Create < Previous Next Download a template for automation

Step6:

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

Microsoft.DataFactory-20220608172527 | Overview

Your deployment is complete

Deployment name: Microsoft.DataFactory-20220608172527
Subscription: Azure-DXC262AB12Lab
Resource group: dxctrain12

Start time: 6/8/2022, 5:28:30 PM
Correlation ID: c60cd07a-a95e-4fa4-9231-893a12087303

Deployment details (Download)
Next steps
Go to resource

4. Explain the steps with screenshots how to copy data from source blob to destination blob ?

A:

Step1:

The screenshot shows the Microsoft Azure portal with the URL <https://portal.azure.com/#blade/HubsExtension/DashboardBlade/Overview/10/%2fsubscriptions%2f5a28cdce-3bd7-4219-858e-23ff20f8b998%2fresourcegroups%2fMicrosoft.DataFactory-20220608172527>. The page title is "Microsoft.DataFactory-20220608172527 | Overview". The main message is "Your deployment is complete". Deployment details include: Deployment name: Microsoft.DataFactory-20220608172527, Subscription: Azure-DXC262AB12Lab, Resource group: dxctrain1. Deployment start time: 6/8/2022, 5:28:30 PM, Correlation ID: c60cd07a-a95e-4fa4-9231-893a12087303. There are links for "Deployment details (Download)" and "Next steps". A "Go to resource" button is at the bottom.

Step2:

The screenshot shows the Microsoft Azure portal with the URL <https://portal.azure.com/#@microsoft.com/microsoft.com/subscriptions/5a28cdce-3bd7-4219-858e-23ff20f8b998/resourcegroups/Microsoft.DataFactory-20220608172527>. The page title is "Microsoft.DataFactory-20220608172527". The left sidebar shows "View", "Activity log", "Access control (IAM)", "Diagnose and solve problems", "Properties", "Logs", "started", "working", "tagged identities", and "ing". The main content area shows "Getting started" with "Open Azure Data Factory Studio" (Start authoring and monitoring your data pipelines and data flows) and "Monitoring" with "PipelineRuns" (100) and "Activities" (10). Other sections include "Logs" (8), "Access control (IAM)", and "Properties".

Step3:

Data factory
dfbysaikiran12

New ▾



Ingest

Copy data at scale once or
on a schedule.



Orchestrate

Code-free data pipel

Discover more



Browse partners
(preview)



Pipeline templates



Step4:

Copy Data tool

1 Properties

Use Copy Data Tool to perform a one-time or schedule
Follow the wizard experience to specify your data loadi

2 Source

Select copy data task type and configure task schedule

3 Target

Task type

Built-in copy task

You will get single pipeline to copy d.
from 90+ data source easily.

4 Settings

You will get single pipeline to quickly copy objects fro

Task cadence or task schedule *

Run once now Schedule Tumbling windo

Step5:

< Previous

Next >

Source data store

Specify the source data store for the copy task. You can use an existing data store connection or specify a new data store.

Source type	Azure Blob Storage
Connection *	Select... + New connection

Step6:

New linked service

 Azure Blob Storage [Learn more](#) 

Name *

AzureBlobStorage1

Description

Connect via integration runtime * 

AutoResolveIntegrationRuntime

Authentication type

Account key

Connection string

Azure Key Vault

Account selection method 

From Azure subscription Enter manually

Azure subscription 

Azure-DXC262AB12Lab (3a28cdce-3bd7-4219-858e-23ff20f8b998)

Storage account name *

dxctrain12345



Additional connection properties

+ New

Create

Cancel

 Test connection

Step7:

Connection string **Azure Key Vault**

Account selection method ⓘ
 From Azure subscription Enter manually

Azure subscription ⓘ
Azure-DXC262AB12Lab (3a28cdce-3bd7-4219-858e-23ff20f8b998)

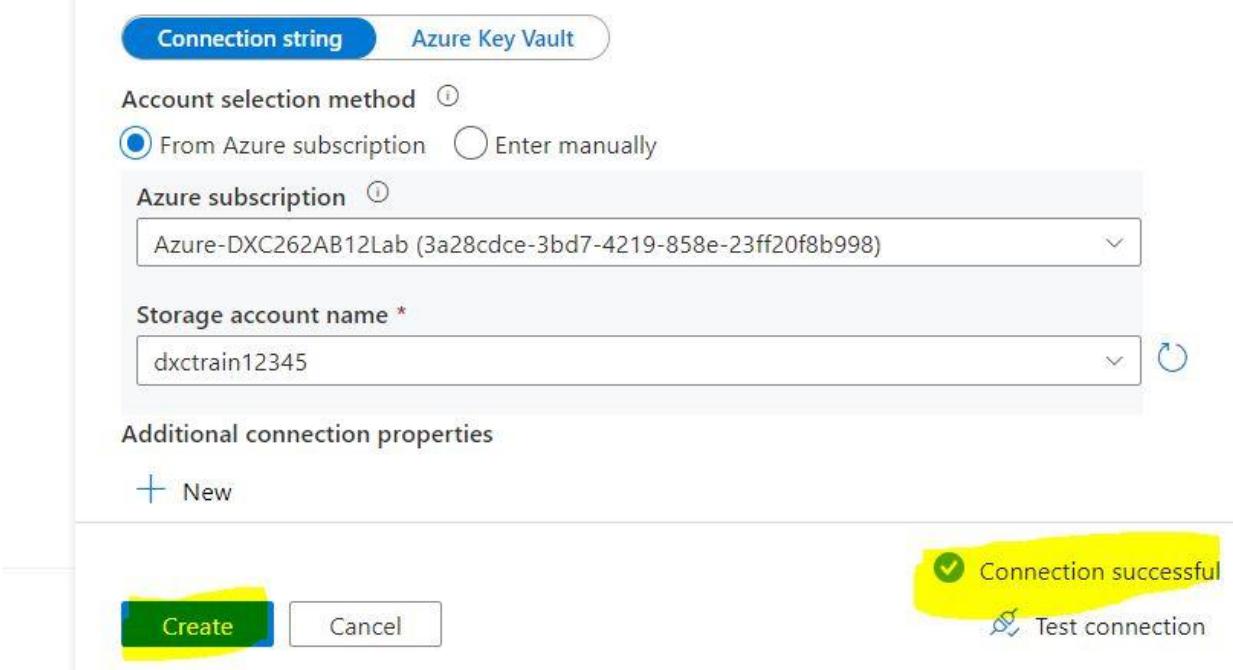
Storage account name *
dxctrain12345

Additional connection properties
+ New

Create **Cancel**

Connection successful

Test connection



Step8:

Source data store

Specify the source data store for the copy task. You can use an existing data store connection or specify a new data store.

Source type

Azure Blob Storage

Connection *

AzureBlobStorage1

Edit + New connection

File or folder *

If the identity you use to access the data store only has permission to subdirectory instead of the entire account, specify the path to browse.

Browse

Options

Binary copy ⓘ

Recursively ⓘ

Enable partition discovery ⓘ

Max concurrent connections ⓘ

Filter by last modified

Start time (UTC)

End time (UTC)

ⓘ

< Previous

Next >

Step9:

Copy Data tool

Properties

Source

Dataset

Configuration

Target

Settings

Review and finish

Source data store

Specify the source data store for the copy task. You can use an existing data store connection or specify a new data store.

Source type: Azure Blob Storage

Connection: AzureBlobStorage1

File or folder: sourcefile12/

Options:

- Binary copy
- Recursively
- Enable partition discovery

Max concurrent connections: 1

Filter by last modified

Start time (UTC):

End time (UTC):

< Previous

Next >

Step10:

Copy Data tool

1 Properties

2 Source

3 Dataset

4 Configuration

5 Target

6 Settings

7 Review and finish

Source data store

Specify the source data store for the copy task. You can use an existing data store connection or specify a new data store.

Source type: Azure Blob Storage

Connection *: AzureBlobStorage1

File or folder *

If the identity you use to access the data store only has permission to subdirectory instead of the entire account, specify the path to browse.

sourcefile12/EMPDATA1.xlsx

Options

Binary copy ⓘ

Recursively ⓘ

Enable partition discovery ⓘ

Max concurrent connections ⓘ

Filter by last modified

Start time (UTC)

End time (UTC)

< Previous

Next >

Step11:

Copy Data tool

1 Properties

2 Source

3 Dataset

4 Configuration

5 Target

6 Settings

7 Review and finish

File format settings

File format ⓘ
DelimitedText

Column delimiter
Comma (,)

Row delimiter
Default (\r\n, or \n\r)

First row as header ⓘ

> Advanced

Compression type
None

Additional columns ⓘ
+ New

Please select a work sheet for your dataset

< Previous

Step12:

Copy Data tool

Properties
Source
Target
Dataset
Configuration
Settings
Review and finish

Destination data store

Specify the destination data store for the copy task. You can use an existing data store connection or specify a new data store.

Target type Azure Blob Storage

Connection * AzureBlobStorage1 [Edit](#) [New connection](#)

Folder path *
If the identity you use to access the data store only has permission to subdirectory instead of the entire account, specify the path to browse.
destinationfile123 [Browse](#)

File name

Copy behavior None

Max concurrent connections

Block size (MB)

Metadata [New](#)

[< Previous](#) [Next >](#)

Step13:

Copy Data tool

Properties

Source

3 Target

Dataset

Configuration

4 Settings

5 Review and finish

File format settings

File format (i)

DelimitedText



Column delimiter

Comma (,)



Edit

Row delimiter

Default (\r\n, or \r\n)



Edit

Add header to file (i)

> Advanced

Compression type

None



Max rows per file

File name prefix

< Previous

Next >

Step14:

Microsoft Azure | Data Factory ▶ dfbysaikiran12

Copy Data tool

Properties
Source
Target
Settings
Review and finish

Settings

Enter name and description for the copy data task, more options for data movement

Task name *

Task description

Data consistency verification

Fault tolerance

Enable logging

Enable staging

> Advanced

< Previous **Next >**

Step15:

Microsoft Azure | Data Factory ▶ dfbysaikiran12

Copy Data tool

Properties ✓
Source ✓
Target ✓
Settings ✓
Review and finish 5
Review ✓
Deployment

Summary
You are running pipeline to copy data from Azure Blob Storage to Azure Blob Storage.

Azure Blob Storage → Azure Blob Storage

Properties

Task name CopyPipeline_kcc
Task description

Source

Connection name AzureBlobStorage1
Dataset name SourceDataset_kcc
Column delimiter ,
Escape character \
Quote char "
File name EMPDATA1.xlsx
Container sourcefile12

< Previous Next >

Step16:

Copy Data tool

The screenshot shows the 'Copy Data tool' interface. On the left, a vertical progress bar indicates steps completed (Properties, Source, Target, Settings) and pending (Review and finish, Review, Deployment). The main area displays a diagram of two Azure Blob Storage icons connected by a double-headed arrow, with the text 'Deployment complete' below it. A table titled 'Deployment step' lists four completed steps: 'Validating copy runtime environment' (Succeeded), 'Creating datasets' (Succeeded), 'Creating pipelines' (Succeeded), and 'Running pipelines' (Succeeded). Below the table, a message states: 'Datasets and pipelines have been created. You can now monitor and edit the copy pipelines or click finish to close Copy Data Tool.' At the bottom, there are three buttons: 'Finish' (blue), 'Edit pipeline' (white), and 'Monitor' (yellow, highlighted).

Step17:

The screenshot shows the 'Pipeline runs' page in the Azure Data Factory interface. The left sidebar shows navigation links for Dashboards, Pipeline runs (selected), Trigger runs, and others. The main area displays a table of pipeline runs. The table has columns: Pipeline name, Run start, Run end, Duration, Triggered by, Status, and Error. One row is visible, showing 'CopyPipeline_kcc' with a run starting at 'Jun 8, 2022, 5:48:12 pm' and ending at 'Jun 8, 2022, 5:48:24 pm', duration '00:00:11', triggered by 'Manual trigger', and status 'Succeeded' (highlighted in yellow).

Step18:

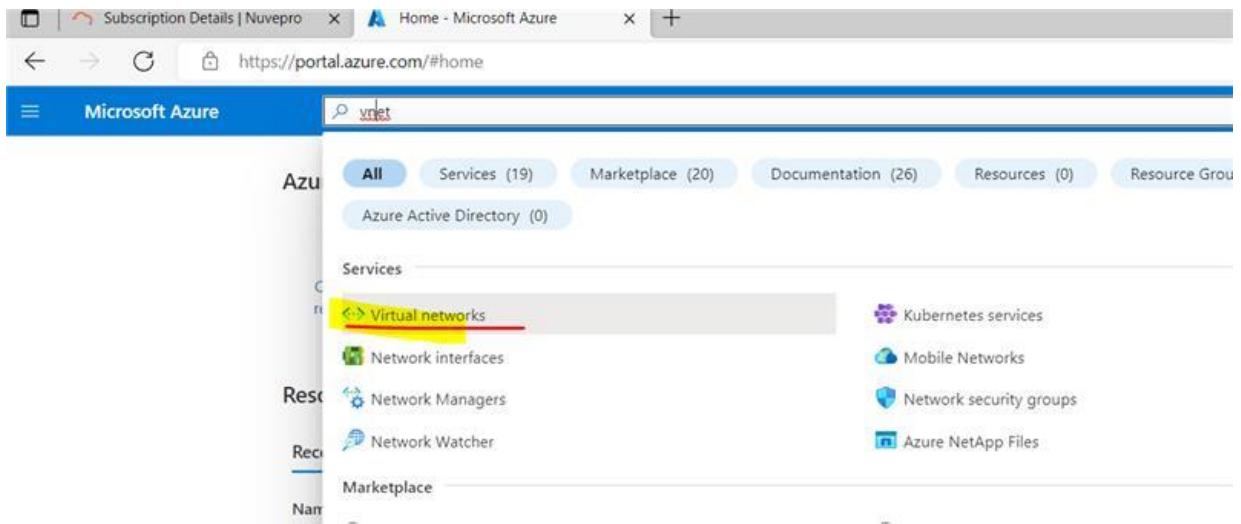
The screenshot shows the Microsoft Azure Storage Explorer interface. At the top, there's a blue header bar with the Microsoft Azure logo and a search bar that says "Search resources, services, and docs (G+/)". Below the header, the navigation path is "Home > dxctrain12345 > destinationfile123". The main area is titled "destinationfile123" and is described as a "Container". On the left, there's a sidebar with tabs: "Overview" (which is selected and highlighted in grey), "Diagnose and solve problems", "Access Control (IAM)", and "Settings" which has sub-options like "Shared access tokens", "Access policy", "Properties", and "Metadata". Above the main content area, there are several buttons: "Upload" (with an upward arrow icon), "Change access level" (with a padlock icon), "Refresh" (with a circular arrow icon), "Delete" (with a trash bin icon), "Change tier" (with a right-pointing arrow icon), "Acquire lease" (with a lock icon), and a "Search blobs by prefix (case-sensitive)" input field. Below these buttons, there's a "Add filter" button. The main content area displays a table of blobs. The table has columns: "Name", "Modified", "Access tier", and "Archive". There is one item listed: "EMPDATA1.xlsx" (with a small file icon), modified on 6/8/2022, 5:48:22 PM, in the "Hot (Inferred)" tier, and not yet archived.

Name	Modified	Access tier	Archive
EMPDATA1.xlsx	6/8/2022, 5:48:22 PM	Hot (Inferred)	

5. Explain the steps with screenshots how to create Virtual Network in Azure ?

A:

STEP 1:



STEP 2:

The screenshot shows the Microsoft Azure Virtual networks page. At the top, there are navigation links for 'Subscription Details | Nuvepro' and 'Virtual networks - Microsoft Azure'. The URL is https://portal.azure.com/#blade/HubsExtension/BrowseResource/resourceType/Microsoft.Network%2FvirtualNetworks. The main title is 'Virtual networks'. Below it, there's a sub-header 'Manipal Pro Learn (manipalazure.onmicrosoft.com)'. A toolbar includes 'Create', 'Manage view', 'Refresh', 'Export to CSV', 'Open query', and 'Assign tags'. There are also filters for 'Subscription', 'Resource group', and 'Location', along with an 'Add filter' button. The table below lists virtual networks with columns for Name, Resource group, and Location.

Name	Resource group	Location
Virtual Network 1	RG1	East US
Virtual Network 2	RG2	East US
Virtual Network 3	RG3	East US

The screenshot shows the 'Create virtual network' wizard in the Microsoft Azure portal. The title bar says 'Microsoft Azure' and 'Search resources, services, and docs (G+)'. The breadcrumb navigation shows 'Home > Virtual networks > Create virtual network'. The sub-header is 'Create virtual network'.

The 'Basics' tab is selected. The page contains the following information:

Azure Virtual Network (VNet) is the fundamental building block for your private network in Azure. VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks. VNet is similar to a traditional network that you'd operate in your own data center, but brings with it additional benefits of Azure's infrastructure such as scale, availability, and isolation. [Learn more about virtual network](#)

Project details

Subscription *: Azure-DXC262AB12Lab

Resource group *: dxcrg2317

Instance details

Name *: dxcvnet23176

Region *: East US

At the bottom, there are navigation buttons: 'Review + create' (highlighted in yellow), '< Previous', 'Next : IP Addresses >' (highlighted in yellow), and 'Download a template for automation'.

The screenshot shows the 'Create virtual network' page in the Microsoft Azure portal, specifically the 'IP Addresses' tab. The address space is set to 10.0.0.0/16 (10.0.0.0 - 10.0.255.255). A subnet named 'default' is defined with a subnet address range of 10.0.0.0/24. There is a note about using a NAT gateway for outbound internet access. Navigation links at the bottom include 'Review + create', '< Previous', 'Next : Security >', and 'Download a template for automation'.

Subscription Details | Nuvepro X Create virtual network - Microsoft X

https://portal.azure.com/#create/Microsoft.VirtualNetwork

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

Home > Virtual networks >

Create virtual network ...

Basics IP Addresses Security Tags Review + create

The virtual network's address space, specified as one or more address prefixes in CIDR notation (e.g. 192.168.1.0/24).

IPv4 address space

10.0.0.0/16 10.0.0.0 - 10.0.255.255 (65536 addresses)

Add IPv6 address space ⓘ

The subnet's address range in CIDR notation (e.g. 192.168.1.0/24). It must be contained by the address space of the virtual network.

+ Add subnet

Subnet name Subnet address range NAT gateway

default 10.0.0.0/24 -

ⓘ Use of a NAT gateway is recommended for outbound internet access from a subnet. You can deploy a NAT gateway and assign it to a subnet after you create the virtual network. [Learn more](#) ⓘ

Review + create < Previous Next : Security > Download a template for automation

STEP 3:

https://portal.azure.com/#create/Microsoft.VirtualNetwork

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

Home > Virtual networks >

Create virtual network

Validation passed

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

Basics

Subscription	Azure-DXC262AB12Lab
Resource group	dxcrg2317
Name	dxcvnet23176
Region	East US

IP addresses

Address space	10.0.0.0/16
Subnet	default (10.0.0.0/24)

Tags

None

Security

BastionHost	Disabled
DDoS protection plan	Basic
Firewall	Disabled

Create < Previous Next > Download a template for automation

STEP 4:

Subscription Details | Nuvepro Microsoft.VirtualNetwork-20220608122303 | Overview

Microsoft Azure

Home > Microsoft.VirtualNetwork-20220608122303 | Overview

Deployment

Search (Ctrl+ /)

Delete Cancel Redeploy Refresh

Overview Inputs Outputs Template

We'd love your feedback! →

Your deployment is complete

Deployment name: Microsoft.VirtualNetwork-20220608122303
Subscription: Azure-DXC262AB12Lab
Resource group: dxcrg2317

Start time: 6/8/2022, 12:29:06 PM
Correlation ID: a208bca0-45ec-4bbd-b445-e0ffb62ea2d8

Deployment details (Download)
Next steps: Go to resource

This screenshot shows the Microsoft Azure portal's 'Overview' page for a specific virtual network deployment. The deployment has completed successfully. Key information displayed includes the deployment name, subscription, and resource group. It also shows the start time and correlation ID. A prominent green button at the bottom right labeled 'Go to resource' allows the user to manage the deployed virtual network.

Subscription Details | Nuvepro Microsoft.VirtualNetwork-20220608122303 | Overview

Microsoft Azure

Home > Microsoft.VirtualNetwork-20220608122303 > dxcvnet23176 - Microsoft Azure

Virtual network

Search (Ctrl+ /)

Move Delete Refresh Give feedback

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Essentials

Resource group (moved): dxcrg2317
Location (moved): East US
Subscription (moved): Azure-DXC262AB12Lab
Subscription ID: 257689f4-4b51-42bc-91e4-7dd514a5be23

Address space: 10.0.0.0/16
DNS servers: Azure provided DNS service
Flow timeout: Configure
BGP community string: Configure
Virtual network ID: beaa8044-7377-463c-b1d9-7a5a503b2685

Tags (edit): Click here to add tags

Topology Capabilities (S) Recommendations Tutorials

DDoS protection: Configure additional protection from distributed denial of service. Not configured.

Azure Firewall: Protect your network with a stateful L3-L7 firewall. Not configured.

Peerings: Seamlessly connect two or more virtual networks. Not configured.

Private endpoints: Privately access Azure services without sending traffic across.

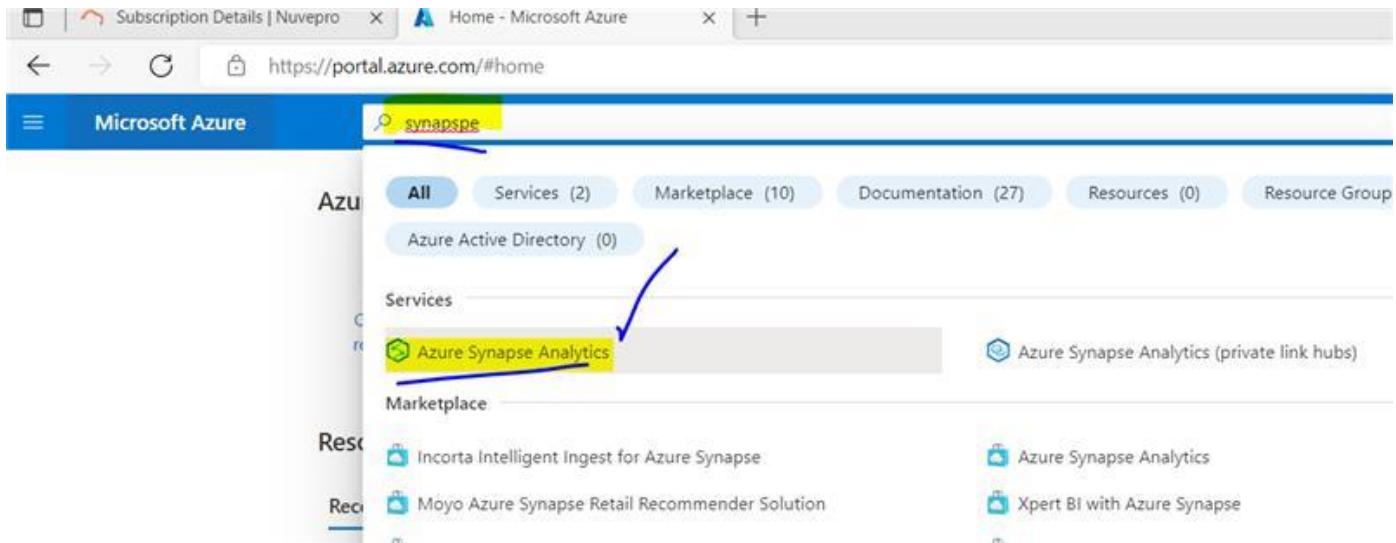
Connected devices Subnets Bastion DDoS protection Firewall Microsoft Defender for Cloud Network manager DNS servers Peerings

This screenshot shows the 'dxvnet23176' virtual network page in the Microsoft Azure portal. The 'Capabilities' tab is active, displaying several networking features: DDoS protection, Azure Firewall, Peerings, and Private endpoints. Each feature has a brief description and a status indicating it is not yet configured. The left sidebar shows other management options like Activity log, Access control (IAM), and Tags.

6. Explain the steps with screenshots how to create azure synapse analytics ?

A:

STEP 1:



Subscription Details | Nuvepro X Create Synapse workspace - Mic... X +

https://portal.azure.com/#create/Microsoft.Synapse

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

Home > Azure Synapse Analytics

Manipal Pro Learns manipalazure.onmicrosoft.com

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

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

Name ↑

No Azure Synapse Analytics to display

Synapse Analytics is a fully-managed service to build modern data warehouses for enterprises. Synapse Analytics brings together SQL, Apache Spark, Orchestration, and Ingestion into a single workspace, dramatically reducing the time to build an analytics solution.

Create Synapse workspace Service overview

STEP 2:

Subscription Details | Nuvepro | Create Synapse workspace - Microsoft Azure | +

https://portal.azure.com/#create/Microsoft.Synapse

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

Home > Azure Synapse Analytics >

Create Synapse workspace ...

Create a synapse workspace to develop an enterprise analytics solution in just a few clicks.

Project details

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

Subscription *

Resource group *

Managed resource group

Workspace details

Name your workspace, select a location, and choose a primary Data Lake Storage Gen2 file system to serve as the default location for logs and job output.

Workspace name *

Region *

Select Data Lake Storage Gen2 * From subscription Manually via URL

Account name *

File system name *

Subscription Details | Nuvepro X Create Synapse workspace - Microsoft Azure

[https://portal.azure.com/#create/Microsoft.Synapse](#)

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

Home > Azure Synapse Analytics > Create Synapse workspace ...

* Basics * **Security** Networking Tags Review + create

Configure security options for your workspace.

Authentication

Choose the authentication method for access to workspace resources such as SQL pools. The authentication method can be changed later on. [Learn more](#)

Authentication method Use both local and Azure Active Directory (Azure AD) authentication Use only Azure Active Directory (Azure AD) authentication

SQL Server admin login *

SQL Password

Confirm password

System assigned managed identity permission

Select to grant the workspace network access to the Data Lake Storage Gen2 account using the workspace system identity. [Learn more](#)

Allow network access to Data Lake Storage Gen2 account. [\(i\)](#)
(i) The selected Data Lake Storage Gen2 account does not restrict network access using any network access rules, or you selected a storage account manually via URL under Basics tab. [Learn more](#)

Workspace encryption

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

STEP 3:

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

Home > Microsoft.Azure.SynapseAnalytics-20220608153006 | Overview ⚡ ...

Deployment

Search (Ctrl+ /) Delete Cancel Redeploy Refresh

We'd love your feedback! →

Your deployment is complete

Deployment name: Microsoft.Azure.SynapseAnalytics-2022060815... Start time: 6/8/2022, 3:38:05 PM
 Subscription: Azure-DXC262AB12Lab Correlation ID: 92ac6d52-879c-4ff4-877d-0f789933999e [Download](#)

Resource group: dxcrgr2317

Deployment details (Download) Next steps

[Go to resource group](#)

Cost Management Get notified prevent une Set up cost Microsoft D

The screenshot shows the Microsoft Azure portal interface. The main title bar says "Subscription Details | Nuvepro" and "dxcsynapse23178 - Microsoft Azure". The address bar shows the URL: <https://portal.azure.com/#@manipalazure.onmicrosoft.com/resource/subscriptions/257689f4-4b51-42bc-91e4-7dd514a5be23/resourceGroups/dxcrg2317/>. The left sidebar has a tree view with "Microsoft Azure" selected, followed by "Subscription Details", "dxcsynapse23178", and "Synapse workspace". The main content area is titled "dxcsynapse23178" and "Synapse workspace". It includes a search bar and several tabs: "Overview", "Activity log", "Access control (IAM)", "Tags", "Diagnose and solve problems", "Settings", "Azure Active Directory", "Properties", and "Locks". Under "Analytics pools", there are links for "SQL pools", "Apache Spark pools", and "Data Explorer pools (preview)". Under "Security", there are links for "Encryption", "Networking", and "Identity". The "Essentials" section contains detailed information: Resource group (dxcrg2317), Status (Succeeded), Location (East US), Subscription (Azure-DXC262AB12Lab), Subscription ID (257689f4-4b51-42bc-91e4-7dd514a5be23), Managed virtual network (No), Managed Identity object (1fd84d4-5086-4fea-affe-7dd89abb4e76), Workspace web URL (<https://web.azure-synapse.net?workspace=%2bsubscriptions%2f257689f4-4b51-42bc-91e4-7dd514a5be23>), and Tags (Click here to add tags). The "Getting started" section has two cards: "Open Synapse Studio" (Start building your fully-integrated analytics solution and unlock new insights. Open) and "Read documentation" (Learn how to be productive quickly. Explore concepts, tutorials, and samples. Learn more). The "Analytics pools" section has a table with columns: Name, Type, and Size. A search bar at the top of the table says "Search to filter items...".

7. Explain the steps with screenshots how to create Azure storage account?

A:

Step1:

Subscription Details | Nuvepro | Storage accounts - Microsoft Azure | Inbox (10,611) - saikiranachie14 | +

portal.azure.com/#blade/HubsExtension/BrowseResource/resourceType/Microsoft.Storage%2FStorageAccounts

Microsoft Azure

Storage accounts

Manipal Pro Learn (manipalazure.onmicrosoft.com)

All Services (13) Marketplace (10) Documentation (28) Resources (0) Resource Groups (0)

Azure Active Directory (0)

Storage accounts

Storage Explorer

CloudSimple Nodes

CloudSimple Services

Cloud services (classic)

Storage accounts (classic)

Storage browser (preview)

Storage Sync Services

See all

NetApp Cloud Volumes ONTAP – Cloud Storage

Flexify.IO - Multi-Cloud Storage

WebDrive Desktop for Cloud Storage

Stonfly Cloud Storage

Modern Workplace Cloud Storage | Easy Intune Storage

R&S®Trusted Gate Storage Encryption Solution for OneDrive, ...

Pure Cloud Block Store™ (subscription)

Cirrus M365 Backup

See all

Introduction to Azure Storage - Cloud storage on Azure | Microsoft...

Cloud storage to build highly secure, durable, scalable apps with A...

Introduction to Blob (object) storage - Azure Storage

Azure Cloud Shell overview | Microsoft Docs

See all

Continue searching in Azure Active Directory

Step 2:

Home >

Storage accounts

Manipal Pro Learn (manipalazure.onmicrosoft.com)

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

Filter for any field... Subscription == all Resource group == all Location == all Add f

Name ↑↓ Type ↑↓ Kind ↑↓

Step3:

Home > Storage accounts >

Create a storage account ...

Basics Advanced Networking Data protection Encryption Tags Review + create

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription *

Resource group *
[Create new](#)

Instance details

If you need to create a legacy storage account type, please click here.

Storage account name ⓘ *

Region ⓘ *

Performance ⓘ * Standard: Recommended for most scenarios (general-purpose v2 account)

Review + create

Step 4:

Subscription Details | Nuvepro X Create a storage account - Micro ... Inbox (10,611) - saikirananche14 X

← → C portal.azure.com/#create/Microsoft.StorageAccount

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

Home > Storage accounts >

Create a storage account ...

Validation passed

Basics Advanced Networking Data protection Encryption Tags Review + create

Blob soft delete	Enabled
Blob retention period in days	7
Container soft delete	Enabled
Container retention period in days	7
File share soft delete	Enabled
File share retention period in days	7
Versioning	Disabled
Blob change feed	Disabled
Version-level immutability support	Disabled

Encryption

Encryption type	Microsoft-managed keys (MMK)
Enable support for customer-managed keys	Blobs and files only
Enable infrastructure encryption	Disabled

Create Download a template for automation

Step5:

The screenshot shows the Microsoft Azure Deployment Overview page for a deployment named 'dxctrain123_1654684826842'. The main message is 'Your deployment is complete' with a green checkmark icon. Deployment details include: Deployment name: dxctrain123_1654684826842, Subscription: Azure-DXC26AB12Lab, Resource group: dxctrain12. The status bar indicates the start time was 6/8/2022, 4:10:35 PM and the correlation ID is ecb1243d-0c72-4d96-978b-1bf785c68d23. A 'Go to resource' button is visible at the bottom.

8. Explain the steps with screenshots how to create upload data into Azure Blobs ?

A:

Step1:

Home > dxctrain123_1654684826842 > dxctrain123

dxctrain123 | Containers

Storage account

Search (Ctrl+ /) Container Change access level Restore containers Refresh Delete

Overview Activity log Tags Diagnose and solve problems Access Control (IAM) Data migration Events Storage browser (preview)

Data storage

Containers File shares Queues Tables

Security + networking

Networking Azure CDN Access keys

Name	Last modified
\$logs	6/8/2022, 4:11:07 PM

Step2:

/providers/Microsoft.Storage/storageAccoun...

New container

Name * blob1

Public access level Blob (anonymous read access for blobs only)

⚠️ Blobs within the container can be read by anonymous request, but container data is not available. Anonymous clients cannot enumerate the blobs within the container.

Advanced

Create Discard

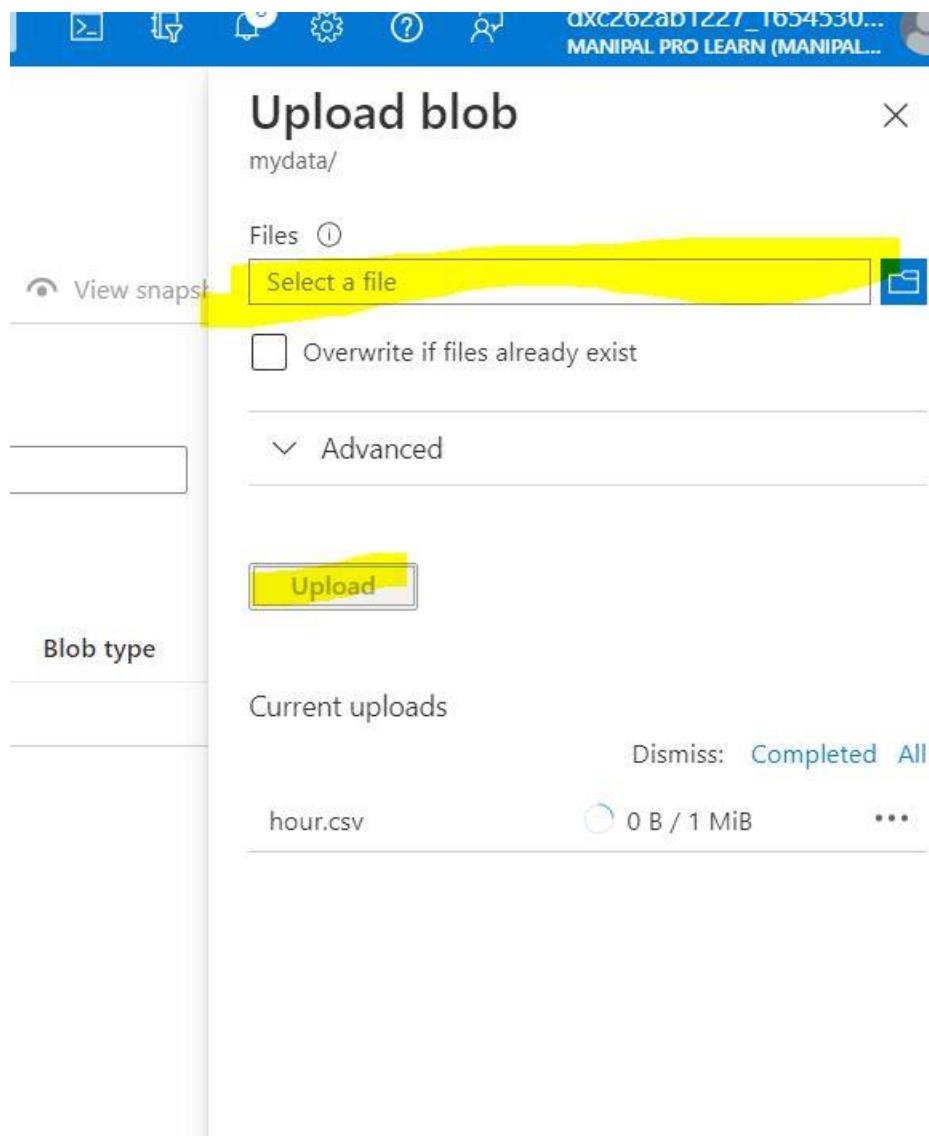
Step 3:

A screenshot of the Azure Storage Explorer interface. The top navigation bar includes a search bar, a 'MANAGE' button, and several icons. Below the navigation is a breadcrumb trail: '326842 > dxctrain123'. The main area shows a list of containers under the heading 'Containers'. A search bar labeled 'Search containers by prefix' is present. The table has columns for 'Name', 'Last modified', 'Public access level', and 'Lease state'. Two containers are listed: 'Slogs' (Private, Available) and 'blob1' (Blob, Available). The 'blob1' row is highlighted with a yellow box.

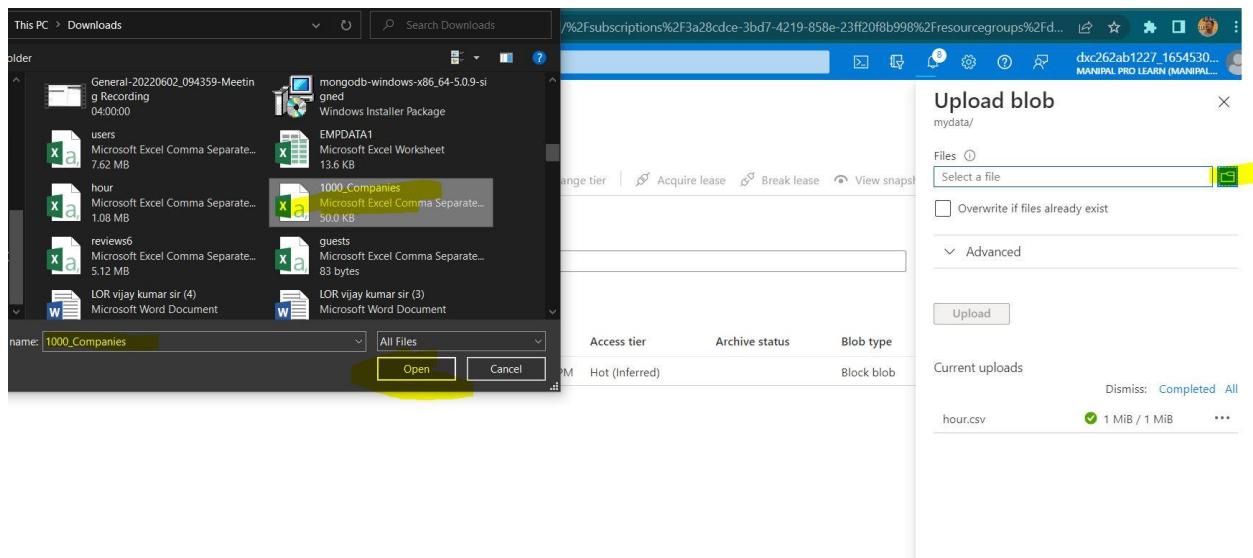
Step4:

A screenshot of the Azure Storage Explorer interface, specifically the blob details page for 'blob1'. The top navigation bar includes a search bar, a 'Change access level' button, a 'Refresh' button, and a 'Delete' button. Below the navigation, there are sections for 'Authentication method' (Access key) and 'Location' (mydata). A search bar labeled 'Search blobs by prefix (case-sensitive)' is present. At the bottom, there is a 'Add filter' button and a table with columns for 'Name' and 'Modified'. The table displays the message 'No results'.

Step5:



Step6:



Step7:

Upload blob ×

mydata/

Files ⓘ

"1000_Companies.csv" Download

Overwrite if files already exist

▼ Advanced

Upload

Current uploads

Dismiss: Completed All

File	Status	Size	Actions
hour.csv	✓	1 MiB / 1 MiB	...

atus Blob type

Block blob

Step8:

Upload Change access level Refresh Delete Change tier Acquire lease Break lease View

Authentication method: Access key (Switch to Azure AD User Account)
Location: mydata

Search blobs by prefix (case-sensitive)

Add filter

Name	Modified	Access tier	Archive status	Blob type
<input type="checkbox"/> 1000_Companies.csv	6/8/2022, 5:20:08 PM	Hot (Inferred)		Block blob
<input type="checkbox"/> hour.csv	6/8/2022, 5:18:37 PM	Hot (Inferred)		Block blob

9. Explain the steps with screenshots how to create connect SQL Database in Azure ?

A:

10. Explain the steps with screenshots how to insert data into azure SQL database ?

A;

9 and 10 combined .

To create azure SQL Db follow the given steps :

Step 1:

Open URL: <https://portal.azure.com/#home>

Step2:

Log in and search Azure Sql in the search bar.

The screenshot shows the Microsoft Azure portal homepage with a search bar at the top containing the query "azure sql". Below the search bar, there are several navigation tabs: All, Services (90), Marketplace (9), Documentation (27), Resources (0), and Resource Groups (0). The "Services" tab is selected. In the main content area, under the "Services" heading, the "Azure SQL" service is listed first, highlighted with a yellow box. Other services listed include Azure Database for MySQL servers, SQL databases, Azure Cosmos DB, Azure Lighthouse, SQL managed instances - Azure Arc, and Azure Database for MySQL flexible servers. Under the "Marketplace" heading, services like Azure SQL Edge, TimeXtender® with Azure SQL DB, Azure SQL, Azure SQL Analytics (Preview), TimeXtender® with ADLS Gen2 and Azure SQL DW (Azure Synapse Analytics), Azure SQL Managed Instance - Azure Arc, and Azure SQL Managed Instance are listed.

Step 3:

This screenshot is identical to the one above, showing the Microsoft Azure portal homepage with a search bar containing "azure sql". The "Services" tab is selected, and the "Azure SQL" service is highlighted with a yellow box. The same list of services and marketplace items is displayed as described in the previous screenshot.

Microsoft Azure

Home >

Azure SQL

Manipal Pro Learn (manipalazure.onmicrosoft.com)

[Create](#) [Reservations](#) [Manage view](#) [Refresh](#) [Export to CSV](#) [Open query](#) [Assign tags](#)

[Subscription == all](#) [Resource group == all](#) [Location == all](#) [Add filter](#)

<input type="checkbox"/> Name ↑↓	Resour...	Service tier ↑↓	R
<input type="checkbox"/>  dxcdb231	SQL server	--	d

Home | Nuvepro Subscription Details | Select SQL deployer | Inbox (10,612) - saikiran

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

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

Home > Azure SQL >

Select SQL deployment option

Microsoft

Feedback

How do you plan to use the service?

SQL databases

Best for modern cloud applications. Hyperscale and serverless options are available.

Resource type

Single database

Create Show details

SQL managed instances

Best for most migrations to the cloud ready.

Resource type

Single instance

Create Show details

Create SQL Database

Microsoft

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-DXC262AB12Lab



Resource group * ⓘ

dxcrg231

[Create new](#)

Database details

Enter required settings for this database, including picking a logical server and configuring the compute and storage resources

Database name * ⓘ

dxcdata123



Server * ⓘ

Select a server

[Create new](#)

The value must not be empty.

Want to use SQL elastic pool? ⓘ

 Yes No

Compute + storage * ⓘ

Please select a server first.

[Configure database](#)

Backup storage redundancy

Home | Nuvepro Subscription Details | Create SQL Database | Inbox (10,612) - saikir... | Welcome Mail

← → C portal.azure.com/#create/Microsoft.SQLDatabase

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

Home > Azure SQL > Select SQL deployment option > Create SQL Database >

Create SQL Database Server

Microsoft

Server details

Enter required settings for this server, including providing a name and location. This server will be created in the same subscription and resource group as your database.

Server name * dxdata3212 .database.windows.net

Location * (US) East US

Authentication

Select your preferred authentication methods for accessing this server. Create a server admin login and password to access your server with SQL authentication, select only Azure AD authentication [Learn more](#) using an existing Azure AD user, group, or application as Azure AD admin [Learn more](#), or select both SQL and Azure AD authentication.

Authentication method Use SQL authentication Use only Azure Active Directory (Azure AD) authentication Use both SQL and Azure AD authentication

Server admin login * saikiraanche

Password * ✓

Confirm password * ✓ Password and

OK

Create SQL Database

...

Microsoft

Enter required settings for this database, including picking a logical server and configuring the compute and storage resources

Database name *

dxcdata123



Server * ⓘ

(new) dxcdata3212 (East US)



Create new

Want to use SQL elastic pool? ⓘ

Yes No

Compute + storage * ⓘ

General Purpose

Gen5, 2 vCores, 32 GB storage, zone redundant disabled

[Configure database](#)

Backup storage redundancy

Choose how your PITR and LTR backups are replicated. Geo restore or ability to recover from regional outage is only available when geo-redundant storage is selected.

Backup storage redundancy ⓘ

Locally-redundant backup storage

Zone-redundant backup storage

Geo-redundant backup storage



⚠ Selected value for backup storage redundancy is Geo-redundant backup storage. Database backups will be geo-replicated which might impact your data residency requirements. [Learn more](#)

[Review + create](#)

[Next : Networking >](#)

Configure

 Feedback

Service and compute tier

Select from the available tiers based on the needs of your workload. The vCore model provides a wide range of configuration controls and offers Hyperscale and Serverless to automatically scale your database based on your workload needs. Alternately, the DTU model provides set price/performance packages to choose from for easy configuration. [Learn more](#)

Service tier General Purpose (Scalable compute and storage options) 

[Compare service tiers](#) 

Compute tier  **Provisioned** - Compute resources are pre-allocated. Billed per hour based on vCores configured.

 **Serverless** - Compute resources are auto-scaled. Billed per second based on vCores used.

Compute Hardware

Select the hardware configuration based on your workload requirements. Availability of compute optimized, memory optimized, and

 Feedback

 1 PLEASE!

Min vCores  0.5 vCores

2.02 GB MIN MEMORY 3 GB MAX MEMORY

Auto-pause delay

The database automatically pauses if it is inactive for the time period specified here, and automatically resumes when database activity recurs. Alternatively, auto-pausing can be disabled.

Enable auto-pause

Days 0 ▼ Hours 1 ▼ Minutes 0 ▼

Data max size (GB)

 1

307.2 MB LOG SPACE ALLOCATED

Would you like to make this database zone redundant? 

Yes No

 Apply

Create SQL Database

Microsoft

Database name *

dxcdata123



Server * ⓘ

(new) dxcdata3212 (East US)



Create new

Want to use SQL elastic pool? ⓘ

Yes No

Compute + storage * ⓘ

General Purpose - Serverless

Gen5, 1 vCore, 1 GB storage, zone redundant disabled

[Configure database](#)

Backup storage redundancy

Choose how your PITR and LTR backups are replicated. Geo restore or ability to recover from regional outage is only available when geo-redundant storage is selected.

Backup storage redundancy ⓘ

- Locally-redundant backup storage
- Zone-redundant backup storage
- Geo-redundant backup storage



Selected value for backup storage redundancy is Geo-redundant backup storage. Database backups will be geo-replicated which might impact your data residency requirements. [Learn more ↗](#)

[Review + create](#)

[Next : Networking >](#)

Home > Azure SQL > Select SQL deployment option >

Create SQL Database

...

Microsoft

Networking

Allow Azure services and resources to access this server	No
Private endpoint	None
Minimum TLS version	1.2
Connection Policy	Default

Security

Identity	Not enabled
Service principal (preview)	Off
Transparent data encryption	Service-managed key selected
Advanced data security	Not now
Sql Ledger(Database)	Disabled
Digest Storage	Disabled

Additional settings

Use existing data	Blank
Collation	SQL_Latin1_General_CI_AS
Maintenance window	System default (5pm to 8am)

Tags

Validating

< Previous

Download a template for automation

Microsoft Azure Search resources, services, and docs (G+/-) MANUAL PRO LEARN (MANUAL)

Home > Microsoft.SQLDatabase.newDatabaseNewServer_eafabca0e677410bbe759 | Overview X

Deployment

Search (Ctrl+/Delete Cancel Redeploy Refresh

We'd love your feedback! →

... Deployment is in progress

Deployment name: Microsoft.SQLDatabase.newDatabaseNewServe... Start time: 6/7/2022, 5:12:47 PM
Subscription: Azure-DXC262AB12Lab Correlation ID: fa94e269-9726-4f2f-8049-b606f67c5c04 Download

Resource group: dxcrg231

Deployment details (Download)

Resource	Type	Status	Operation details
dxadata3212	Microsoft.Sql/servers	Accepted	Operation details

Microsoft.SQLDatabase.newDatabaseNewServer_eafabca0e677410bbe759 | Overview

Deployment

Search (Ctrl+/Delete Cancel Redeploy Refresh

We'd love your feedback! →

>Your deployment is complete

Deployment name: Microsoft.SQLDatabase.newDatabaseNewServe... Start time: 6/7/2022, 5:12:47 PM
Subscription: Azure-DXC262AB12Lab Correlation ID: fa94e269-9726-4f2f-8049-
Resource group: dxcrg231

Deployment details (Download)

Next steps

Go to resource

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

Home > Microsoft.SQLDatabase.newDatabaseNewServer_eafabca0e677410bbe759 > dxadata123 (dxadata3212/dxadata123)

dxadata123 (dxadata3212/dxadata123) | Query editor (preview) ...

SQL database

Search (Ctrl+ /) Login + New Query Open query Feedback

Overview Activity log Tags Diagnose and solve problems Getting started Query editor (preview) **Query editor (preview)**

Power Platform Power BI Power Apps Power Automate

Settings Compute + storage Connection strings Maintenance Properties Locks

Welcome to SQL Database Query Editor

SQL server authentication Active Directory authentication

Login * saikiraanche Password *

Continue as dxc262ab1227_1654530006... OR OK



Welcome to SQL Database Query Editor

SQL server authentication Active Directory authentication

Login * saikiraanche Continue as dxc262ab1227_1654530006... OR

Password *

✖ Cannot open server 'dxadata3212' requested by the login. Client with IP address '49.204.189.58' is not allowed to access the server. To enable access, use the Azure Portal or run sp_set_firewall_rule on the master database to create a firewall rule for this IP address or address range. It may take up to five minutes for this change to take effect.

Allowlist IP 49.204.189.58 on server dxadata3212

OK



Microsoft Azure

Home > Microsoft.SQLDatabase.newDatabaseNewServer_eafabca0e677410bbe759 > dxadata123 (dxadata3212/dxadata123)

dxadata123 (dxadata3212/dxadata123) | Query editor (preview) ...

Search (Ctrl+/

Login Open query

Overview Tags Getting started

Power Platform

Settings

dxadata123 (saikiraanche)

Showing limited object explorer here. For full capability please open SSDT.

Tables

Query 1

Run Cancel query Export data as Show only Editor

1

Results

Login Open query

dxadata123 (saikiraanche)

Showing limited object explorer here. For full capability please open SSDT.

Tables

Query 1

Run Cancel query Export data as Show only Editor

1 CREATE TABLE mydata (my_name varchar(20) , age int , qualification_ varchar(20));

Results

Query succeeded: Affected rows: 0

Login + New Query ⌘ Open query Feedback

dxcdata123 (saikiraanche) ⌂

Showing limited object explorer here. For full capability please open SSDT.

> Tables
> Views
> Stored Procedures

Query 1 ×

Run Cancel query Save query Export data as Show only Editor

```
1 insert into mydata
2 values ('sai kiran',22,'b_tech');
```

Results Messages

Query succeeded: Affected rows: 1

Login + New Query ⌘ Open query Feedback

dxcdata123 (saikiraanche) ⌂

Showing limited object explorer here. For full capability please open SSDT.

> Tables
 > dbo.mydata
> Views
> Stored Procedures

Query 1 ×

Run Cancel query Save query Export data as Show only Editor

```
1 select * from mydata;
```

Results Messages

Search to filter items...

my_name	age	qualification_
sai kiran	22	b_tech

RESULT

Almost all the test questions have been solved and presented successfully in the present document except few due to lack of data .

CONCLUSIONS

All the questions have been solved successfully with all the concepts that have been covered in the training session. It's really a great experience of learning while solving the cases. This assignment gave me immense confidence regarding my ability to upskill in new technologies.