

DXC REALTIME PROJECTS

AZ-900, DP - 203



JUNE 10, 2022
DXC TECHNOLOGY
BANAGLORE

Name: Ashok Kumar

Reg No: DXC-262-AB-1233

Project1 Name: Smart Vehicles

Date: 10/06/2022

Project 1 : Connected Vehicles

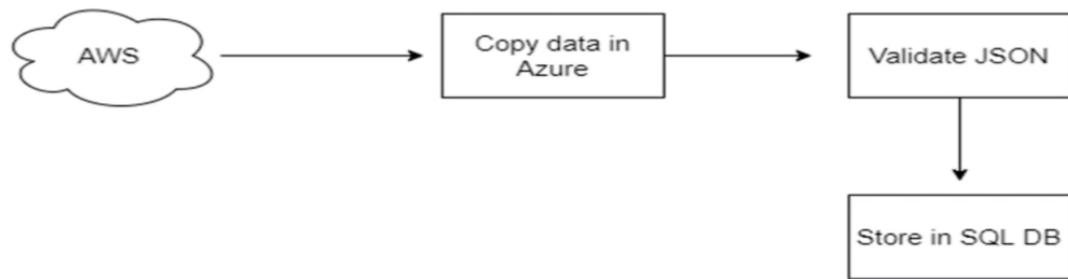
- General Motors is one of the leading heavy vehicle manufacture company. To improve their service they are planning to rollout lot new features based on IoT.



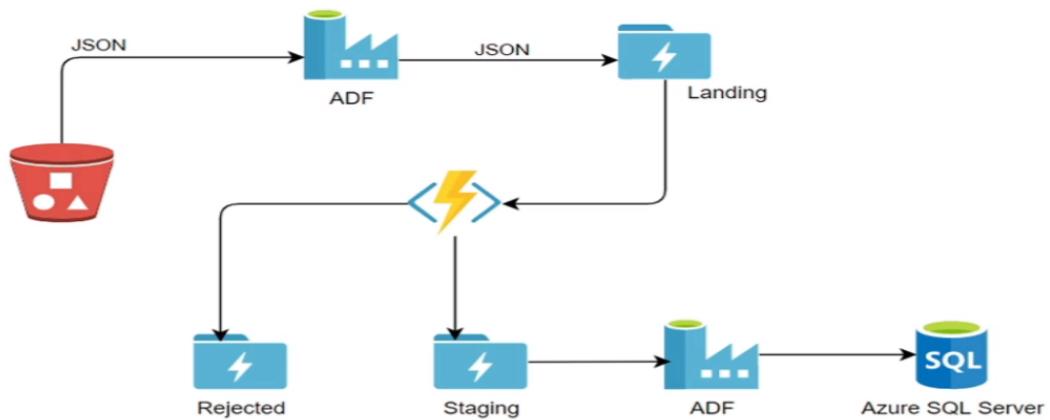
Project 1 : Connected Vehicles

- Vehicle has third party IoT device which will send the telemetry data (in JSON format) over the AWS cloud.
- You need to move data from third party AWS to General Motors Azure cloud.
- You need to validate the JSON sometime it could be incomplete or wrong JSON which need to be rejected.
- Once JSON got validated this data would be stored in the SQL database which will be further utilized by data science team.

Project 1 : Connected Vehicles



Project 1 : Connected Vehicles

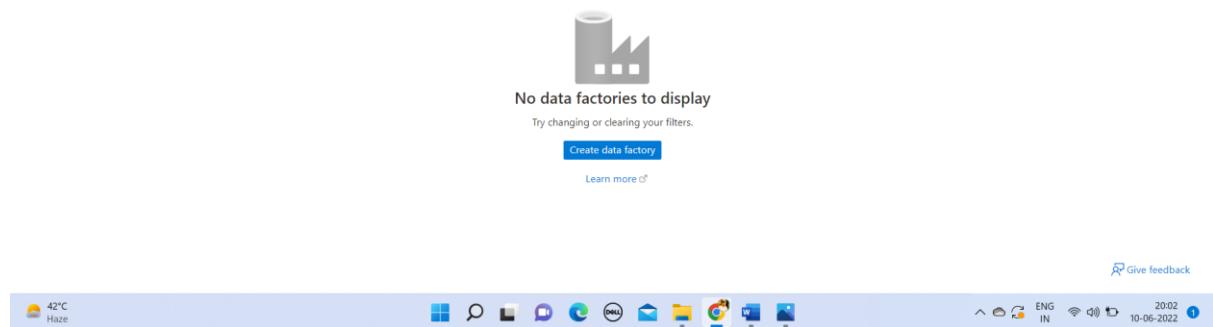


Architecture Diagram for Connected Vehicle Project

Practical Lab: Create **Azure Data Factory** Account For Data pipelines

Go to <https://portal.azure.com/#home> and search Data factory and click on it.

The screenshot shows the Microsoft Azure portal interface. The title bar indicates the user is viewing 'Subscription Details | Nuvapro' and 'Data factories - Microsoft Azure'. The URL in the address bar is 'portal.azure.com/#view/HubsExtension/BrowseResource/resourceType/Microsoft.DataFactory%2FdataFactories'. The top navigation bar includes links for Home, Data factories, and other services like Storage, Functions, and Logic Apps. A search bar is present at the top right. The main content area is titled 'Data factories' and shows a list of resources. The first item listed is 'Manipal Pro Learn (manipalazure.onmicrosoft.com)'. Below the list are buttons for 'Create', 'Manage view', 'Refresh', 'Export to CSV', 'Open query', and 'Assign tags'. A filter bar at the bottom allows filtering by 'Subscription', 'Type', 'Resource group', 'Location', and 'Add filter'. The results table has columns for Name, Type, Subscription, Resource group, and Location, with sorting arrows indicating the current sort order.



click on create and fill the details.

Subscription Details | Nuvepro > Create Data Factory - Microsoft - +

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 organize and manage all your resources.

Subscription * (Azure-DXC262AB12Lab) Resource group * ((New) ashokrg99) Create new

Instance details

Name * (ashokdatafactory99) Region * (East US) Version * (V2 (Recommended))

Review + create < Previous Next : Git configuration >

42°C Here ENG WiFi 10:06:2023

Subscription Details | Nuvepro x Create Data Factory - Microsoft x +

← → C 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

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

Review + create < Previous Next : Networking >

42°C Haze

Subscription Details | Nuvepro x Create Data Factory - Microsoft x +

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

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

Home > Data factories > Create Data Factory ...

Validation Passed

*** Initializing deployment...
Initializing template deployment to resource group 'ashokrg99'.

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 Marketplace offering(s) listed above; and (b) 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.

Basics

| | |
|----------------|---------------------|
| Subscription | Azure-DXC262A812Lab |
| Resource group | ashokrg99 |
| Name | ashokdatafactory99 |
| Region | East US |
| Version | V2 (Recommended) |

Networking

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

Create < Previous Next Download a template for automation

42°C Haze

Subscription Details | Nuvepro Microsoft.DataFactory-20220610200229 | Overview

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

Microsoft.DataFactory-20220610200229 | Overview

Deployment

Overview Inputs Outputs Template

We'd love your feedback! →

Your deployment is complete

Deployment name: Microsoft.DataFactory-20220610200229
Subscription: Azure-DXC262AB12Lab
Resource group: ashokrg99

Start time: 6/10/2022, 8:04:45 PM
Correlation ID: 08d36806-f132-4352-af10-3d09075e9f25

Deployment details (Download)
Next steps Go to resource

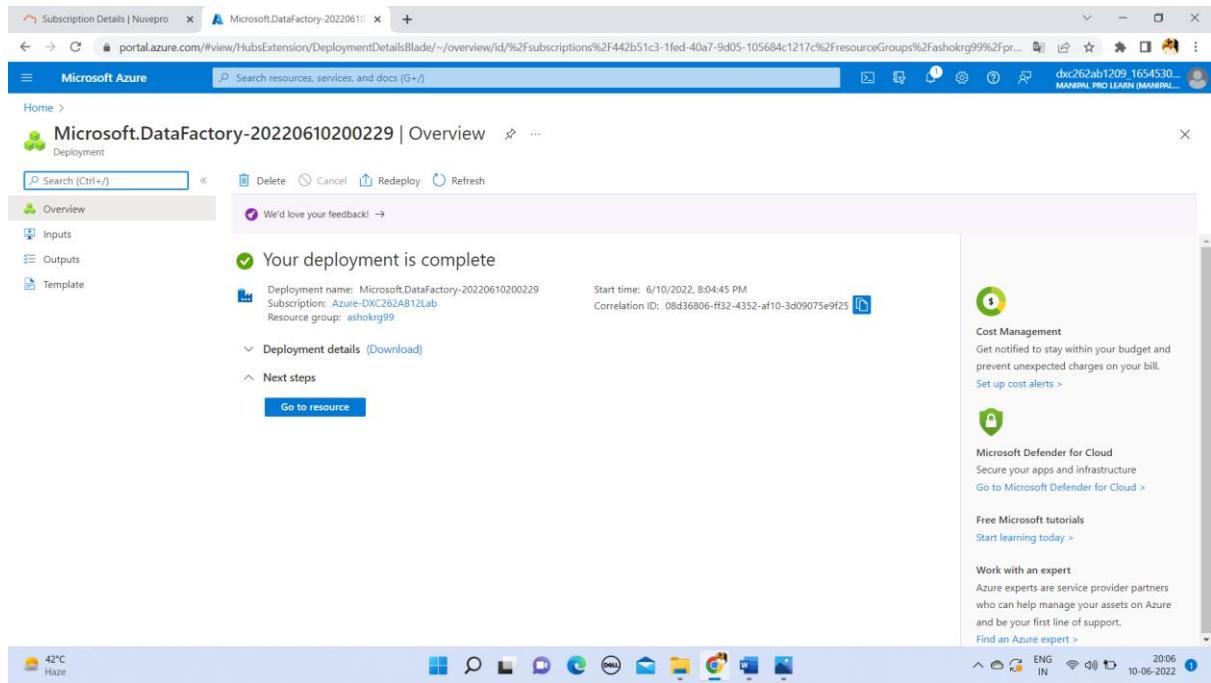
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Subscription Details | Nuvepro ashokdatafactory99 - Microsoft | Overview

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

Home > Microsoft.DataFactory-20220610200229 > ashokdatafactory99 Data factory (V2)

Search (Ctrl+ /) Delete

Essentials

Resource group (move) : ashokrg99 Status : Succeeded Type : Data factory (V2)
Location : East US Getting started : Quick start
Subscription (move) : Azure-DXC262AB12Lab Subscription ID : 442b51c3-1fed-40a7-9d05-105684c1217c

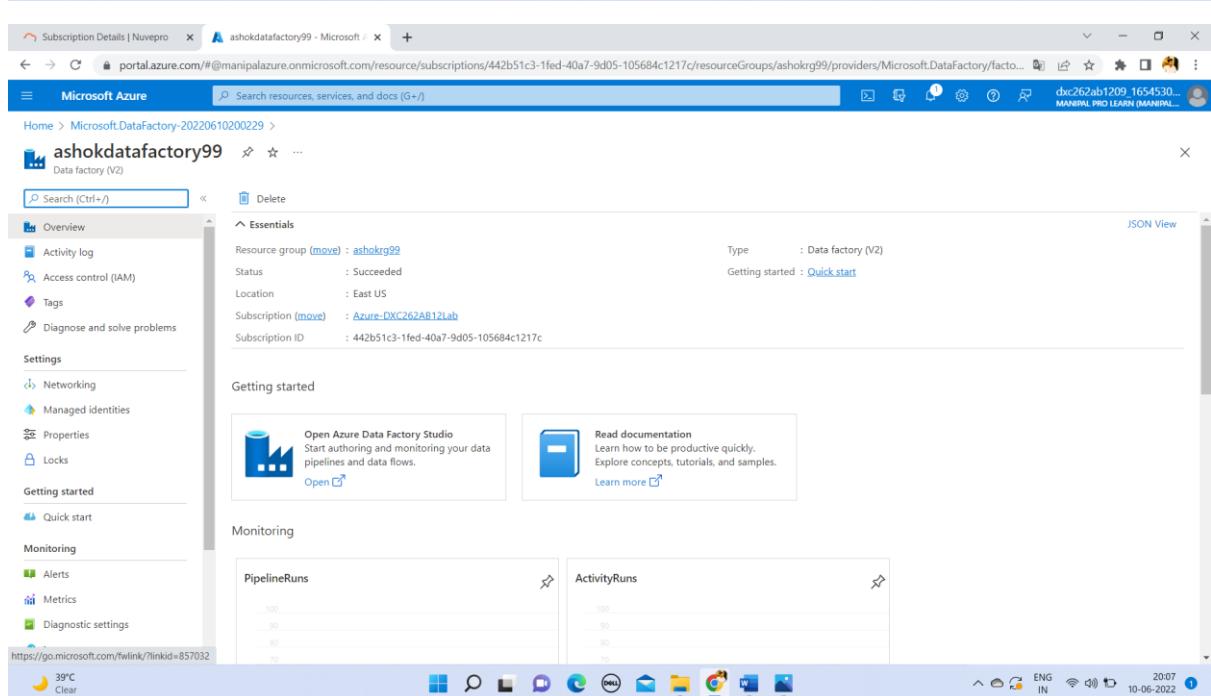
Getting started

Open Azure Data Factory Studio Start authoring and monitoring your data pipelines and data flows. Open Read documentation Learn how to be productive quickly. Explore concepts, tutorials, and samples. Learn more

Monitoring

PipelineRuns ActivityRuns

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Subscription Details | Nuvepro x | ashokdatafactory99 - Microsoft x | ashokdatafactory99 - Azure Data x +

ash.azure.com/en/home?factory=%2Fsubscriptions%2F442b51c3-1fed-40a7-9d05-105684c1217c%2FresourceGroups%2Fashokrg99%2Fproviders%2FMicrosoft.DataFactory%2Ffactories...

Microsoft Azure | ashokdatafactory99

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

Set up code repository

Data factory
ashokdatafactory99

New

Ingest: Copy data at scale once or on a schedule.

Orchestrate: Code-free data pipelines.

Transform data: Transform your data using data flows.

Configure SSIS: Manage & run your SSIS packages in the cloud.

Discover more

Browse partners (preview)

Pipeline templates

SAP pipeline templates

39°C Clear

ENG IN 10-06-2022 20:08

Practical Lab: Create ADF Pipeline End to end pipeline with triggers enabled

Create storage account for source and destination for pipeline

The screenshot shows the 'Create a storage account' wizard in the Azure portal. The 'Basics' tab is selected. The storage account name is 'ashokstorage99', located in the 'US East US' region. The performance tier is set to 'Standard: Recommended for most scenarios (general-purpose v2 account)'. Redundancy is set to 'Geo-redundant storage (GRS)'. A checkbox for 'Make read access to data available in the event of regional unavailability' is checked. The 'Review + create' button is visible at the bottom.

Instance details

If you need to create a legacy storage account type, please click [here](#).

Storage account name: ashokstorage99

Region: (US) East US

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

Redundancy: Geo-redundant storage (GRS)

Make read access to data available in the event of regional unavailability.

Review + create < Previous Next : Advanced >

Deployment Status: Deploying...

*** Initializing deployment...
Initializing template deployment to resource group 'ashokrg99'.

39°C Clear

Subscription Details | Nuvepro | Create a storage account - Microsoft Storage Account | ashokdatafactory99 - Azure Data | +

Microsoft Azure | Search resources, services, and docs (G+) | ENG IN 10-06-2022

Home > Storage accounts > Create a storage account

Basics Advanced Networking Data protection Encryption Tags Review + create

Resource group: ashokrg99

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

39°C Clear

Subscription Details | Nuvepro | Create a storage account - Microsoft Storage Account | ashokdatafactory99 - Azure Data | +

Microsoft Azure | Search resources, services, and docs (G+) | ENG IN 10-06-2022

Home > Storage accounts > Create a storage account

Basics Advanced Networking Data protection Encryption Tags Review + create

File share soft delete: Enabled

File share retention period in days: 7

Container soft delete: Enabled

Container retention period in days: 7

Blob soft delete: Enabled

Blob retention period in days: 7

Versioning: Disabled

Blob change feed: Disabled

Version-level immutability support: Disabled

Encryption type: Microsoft-managed keys (MMK)

Enable support for customer-managed keys: Blobs and files only

Enable infrastructure encryption: Disabled

Create < Previous Next > Download a template for automation

39°C Clear

Subscription Details | Nuvepro | Create a storage account - Microsoft Storage Account | ashokdatafactory99 - Azure Data | +

Microsoft Azure | Search resources, services, and docs (G+) | ENG IN 10-06-2022

Home > Storage accounts > Create a storage account

Basics Advanced Networking Data protection Encryption Tags Review + create

Subscription Details | Nuvepro x ashokstorage99_1654872246255 x ashodatafactory99 - Azure Data x +

Microsoft Azure Search resources, services, and docs (G+) dxc262ab1209_1654530... MANIPAL PRO LEARN (MANIPAL...) Home > ashokstorage99_1654872246255 | Overview x ...

Deployment

Search (Ctrl+)

Delete Cancel Redeploy Refresh

We'd love your feedback! →

Your deployment is complete

Deployment name: ashokstorage99_1654872246255
Subscription: Azure-DXC262AB12Lab
Resource group: ashokrg99

Deployment details (Download)
Next steps Go to resource

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This screenshot shows the Microsoft Azure Deployment Overview page. It displays a successful deployment named 'ashokstorage99_1654872246255'. The deployment was initiated from the 'Azure-DXC262AB12Lab' subscription and is associated with the 'ashokrg99' resource group. The deployment status is marked as 'complete' with a green checkmark icon. A 'Deployment details' section provides a download link for the deployment manifest. To the right of the main content, there are promotional cards for 'Cost Management', 'Microsoft Defender for Cloud', 'Free Microsoft tutorials', and 'Work with an expert'. The bottom of the screen shows the Windows taskbar with various pinned icons and the system clock indicating it's 10:06 AM on June 6, 2022.

Subscription Details | Nuvepro x ashokstorage99 - Microsoft Azure x ashodatafactory99 - Azure Data x +

Microsoft Azure Search resources, services, and docs (G+) dxc262ab1209_1654530... MANIPAL PRO LEARN (MANIPAL...) Home > ashokstorage99_1654872246255 x ...

Storage account

Search (Ctrl+)

Upload Open in Explorer Delete Move Refresh Mobile Feedback

Essentials

Resource group (move) : ashokrg99 Performance : Standard
Location : East US Replication : Read-access geo-redundant storage (RA-GRS)
Primary/Secondary Location : Primary: East US, Secondary: West US Account kind : StorageV2 (general purpose v2)
Subscription (move) : Azure-DXC262AB12Lab Provisioning state : Succeeded
Subscription ID : 442b51c3-1fed-40a7-9d05-105684c1217c
Disk state : Primary: Available, Secondary: Available Created : 6/10/2022 8:14:21 PM
Tags (edit) : Click here to add tags

Properties Monitoring Capabilities (7) Recommendations Tutorials Developer Tools

Blob service Security

| | | | |
|------------------------|------------------|---|-------------|
| Hierarchical namespace | Disabled | Require secure transfer for REST API operations | Enabled |
| Default access tier | Hot | Storage account key access | Enabled |
| Blob public access | Enabled | Minimum TLS version | Version 1.2 |
| Blob soft delete | Enabled (7 days) | Infrastructure encryption | Disabled |
| Container soft delete | Enabled (7 days) | | |
| Versioning | Disabled | | |
| Change feed | Disabled | | |
| NFS v3 | Disabled | | |

Networking

Allow access from All networks
Number of private endpoint connections 0

39°C Clear 2015 IN 10-06-2022

This screenshot shows the Microsoft Azure Storage Account overview page for 'ashokstorage99'. The page displays basic account information such as the resource group ('ashokrg99'), location ('East US'), and primary/secondary locations ('Primary: East US, Secondary: West US'). It also shows the subscription ('Azure-DXC262AB12Lab') and disk state ('Primary: Available, Secondary: Available'). The 'Properties' tab is selected, showing detailed settings for the Blob service, including options like 'Hierarchical namespace' (disabled), 'Default access tier' (Hot), and 'Blob public access' (enabled). The 'Security' section includes settings for 'Require secure transfer for REST API operations' (enabled) and 'Storage account key access' (enabled). The 'Networking' section indicates that access is allowed from all networks. The bottom of the screen shows the Windows taskbar with various pinned icons and the system clock indicating it's 10:06 AM on June 6, 2022.

The screenshot shows the Microsoft Azure portal interface. The left sidebar is for 'ashokstorage99' and includes sections for Overview, Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, and Storage browser (preview). Under Data storage, 'Containers' is selected. The main area shows a table of existing containers:

| Name | Last modified | Public access |
|-------|-----------------------|---------------|
| slogs | 6/10/2022, 8:14:48 PM | Private |

A modal dialog titled 'New container' is open on the right. It has fields for 'Name' (set to 'sourceblob1') and 'Public access level' (set to 'Blob (anonymous read access for blobs only)'). A warning message states: '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.' At the bottom of the dialog are 'Create' and 'Discard' buttons.

This screenshot is identical to the one above, except the 'sourceblob1' container now appears in the list of existing containers. The 'New container' dialog is still open, showing the same configuration: 'Name' set to 'destinationblob1' and 'Public access level' set to 'Blob (anonymous read access for blobs only)'. The warning message is also present. The system status bar at the bottom indicates it's 10-06-2022, 20:17, ENG IN.

We have created source blob and destination blob

Upload file in source blob from your local storage

A screenshot of the Microsoft Azure Storage Explorer interface. On the left, the 'sourceblob1' container is selected under the 'ashokstorage99' storage account. The main pane shows a table of blobs with columns: Name, Modified, Access tier, Archive status, and Blob type. A search bar at the top right says 'Search blobs by prefix (case-sensitive)'. On the right, a modal window titled 'Uploading 1000_Companies.csv' shows the file being uploaded with a progress bar at 50 KiB. Below the modal, there's an 'Upload' button and a 'Current uploads' section showing '1000_Companies.csv' with a status of 'Completed'.

After creating end to end pipeline it will show in destination blob

Now go to azure data factory studio to create pipeline

A screenshot of the Azure Data Factory studio home page. The left sidebar has navigation links: Home, Author, Monitor, and Manage. The main area features a large 'Data factory' heading with the name 'ashokdatafactory99'. Below it are four cards: 'Ingest' (Copy data at scale once or on a schedule), 'Orchestrate' (Code-free data pipelines), 'Transform data' (Transform your data using data flows), and 'Configure SSIS' (Manage & run your SSIS packages in the cloud). At the bottom, there's a 'Discover more' section with links to 'Browse partners (preview)', 'Pipeline templates', and 'SAP pipeline templates'. The status bar at the bottom shows the date as 10-06-2022 and the time as 20:20.

Click on Ingest

The screenshot shows the 'Copy Data tool' wizard in the Microsoft Azure portal. The left sidebar lists steps: Properties, Source, Target, Settings, and Review and finish. The main area is titled 'Properties' and shows 'Task type' options: 'Built-in copy task' (selected) and 'Metadata-driven copy task'. The 'Built-in copy task' section states: 'You will get single pipeline to copy data from 90+ data source easily.' The 'Metadata-driven copy task' section states: 'You will get parameterized pipelines which can read metadata from an external store to load data at a large scale.' Below these are 'Task cadence or task schedule' options: 'Run once now' (selected), 'Schedule', and 'Tumbling window'. At the bottom are 'Previous' and 'Next >' buttons, and a 'Cancel' button in the top right.

The screenshot shows the 'Source data store' configuration step in the 'Copy Data tool' wizard. The left sidebar shows steps: Properties, Source (selected), Dataset, Configuration, Target, Settings, and Review and finish. The main area shows 'Source type' set to 'Azure Blob Storage' and 'Connection' set to 'Select...'. To the right, under 'New linked service', a 'Name' field is filled with 'AzureBlobStorage1', and a 'Description' field is filled with 'AzureBlobStorage1'. Under 'Connect via integration runtime', 'AutoResolveIntegrationRuntime' is selected. Under 'Authentication type', 'Account key' is selected. Under 'Connection string', 'Azure subscription' is selected, and 'Storage account name' is set to 'ashokstorage99'. A 'Create' button is visible at the bottom, along with a 'Connection successful' message and a 'Test connection' link.

Select source type as **Azure Blog storage** and create a connection to storage account. And browse the file that we have uploaded in source blob.

The screenshot shows the 'Copy Data tool' interface in Microsoft Azure. The left sidebar lists steps: Properties, Source (selected), Dataset, Configuration, Target, Settings, and Review and finish. The main panel is titled 'Source data store'. It specifies 'Source type' as 'Azure Blob Storage' and 'Connection' as 'AzureBlobStorage1'. Under 'File or folder', the path 'sourceblob1/1000_Companies.csv' is entered. In the 'Options' section, 'Recursively' is checked. Below this, there are fields for 'Start time (UTC)' and 'End time (UTC)'. At the bottom are 'Previous', 'Next >', and 'Cancel' buttons.

Click on next

The screenshot shows the 'Copy Data tool' interface in Microsoft Azure. The left sidebar lists steps: Properties, Source (selected), Dataset, Configuration, Target, Settings, and Review and finish. The main panel is titled 'File format settings'. It shows 'File format' set to 'DelimitedText', 'Column delimiter' as 'Comma (,),' 'Row delimiter' as 'Line feed (\n)', and 'First row as header' checked. Other options like 'Advanced', 'Skip line count', 'Escape character', and 'Quote character' are also visible. At the bottom are 'Previous', 'Next >', and 'Cancel' buttons.

The screenshot shows the Microsoft Azure Copy Data tool interface. The left sidebar lists steps: Properties, Source, Dataset, Configuration, Target, Settings, and Review and finish. Step 2, 'Source', is selected and highlighted in blue. The main panel displays the 'File form' configuration for a CSV file named 'sourceblob1/1000_Companies.csv'. Under 'File format', 'Delimited' is selected. The 'Object' dropdown shows the full path. The 'Preview' tab is active, showing a table with columns: R&D Spend, Administration, Marketing Spend, State, and Profit. The data preview includes several rows of numerical values. The 'Schema' tab is also visible. At the bottom are 'Previous' and 'Next' buttons, and a 'Cancel' button.

The screenshot shows the Microsoft Azure Copy Data tool interface. The left sidebar lists steps: Properties, Source, Target, Dataset, Configuration, Settings, and Review and finish. Step 3, 'Target', is selected and highlighted in blue. The main panel displays the 'Destination data store' configuration. It asks to specify the destination data store, offering 'All' as the target type and a dropdown for 'Connection' with an option to 'Select...' or 'New connection'. At the bottom are 'Previous' and 'Next' buttons, and a 'Cancel' button.

Now here give details about your destination

Subscription Details | Nuvepro | sourceblob1 - Microsoft Azure | ashokdatafactory99 - Azure Data +

Microsoft Azure | ashokdatafactory99

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

Folder path: destinationblob1

File name:

Copy behavior: None

Max concurrent connections:

Block size (MB):

Metadata: New

Browse

Select a file or folder.

Root folder

destinationblob1

sourceblob1

Showing 1 - 2 of 2 items

OK Cancel < Previous Next >

39°C Clear

ENG IN 10-06-2022 20:32

Subscription Details | Nuvepro | sourceblob1 - Microsoft Azure | ashokdatafactory99 - Azure Data +

Microsoft Azure | ashokdatafactory99

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

Folder path: destinationblob1

File name:

Copy behavior: None

Max concurrent connections:

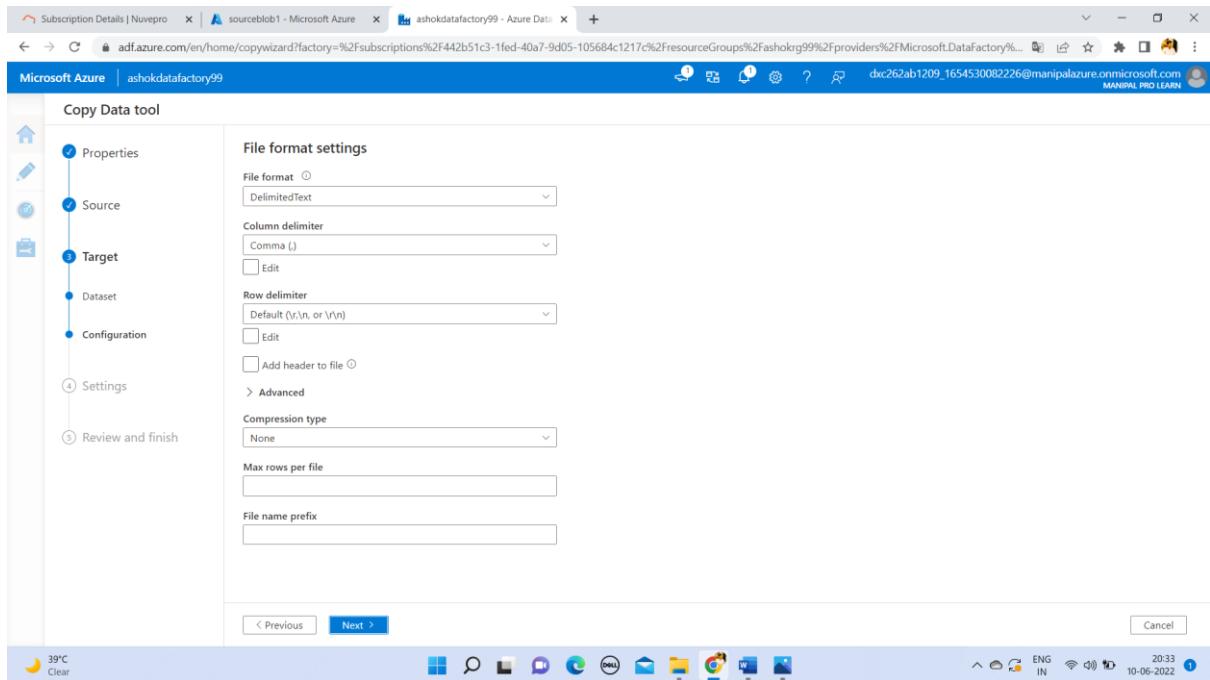
Block size (MB):

Metadata: New

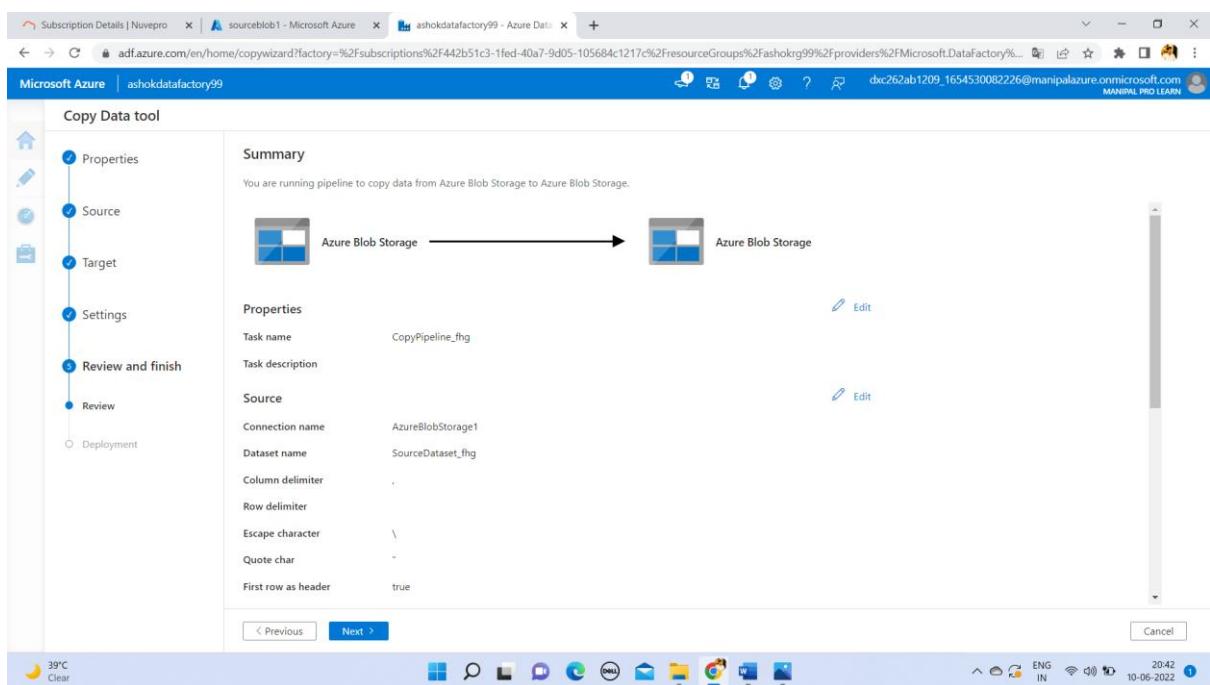
< Previous Next > Cancel

39°C Clear

ENG IN 10-06-2022 20:33



Here we can choose that in which format we need file at destination



Here our pipeline is running to copy data from azure blob storage **source** to azure blob storage **destination**.

The screenshot shows the Microsoft Azure Copy Data tool interface. On the left, a vertical navigation pane lists steps: Properties, Source, Target, Settings, Review and finish, Review, and Deployment. The 'Deployment' step is currently selected. The main area displays a flow diagram where 'Azure Blob Storage' is connected by an arrow to another 'Azure Blob Storage' icon. Below this, the message 'Deployment complete' is displayed. A table titled 'Deployment step' shows four completed steps with green checkmarks and the status 'Succeeded': 'Validating copy runtime environment', 'Creating datasets', 'Creating pipelines', and 'Running pipelines'. A note at the bottom 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 of the screen, there are three buttons: 'Finish' (highlighted in blue), 'Edit pipeline', and 'Monitor'. The system tray at the bottom right shows the date and time as 10-06-2022 20:44.

The screenshot shows the Microsoft Azure Storage Container blade for 'destinationblob1'. The top navigation bar includes tabs for Overview, Diagnose and solve problems, Access Control (IAM), Settings, Shared access tokens, Access policy, Properties, and Metadata. The 'Overview' tab is selected. The main content area shows blob details: 'Authentication method: Access key (Switch to Azure AD User Account)' and 'Location: destinationblob1'. A search bar allows filtering by blob prefix. A table lists blobs: Name (1000_Companies.txt), Modified (6/10/2022, 8:44:33 PM), Access tier (Hot (Inferred)), Archive status (Not yet archived), Blob type (Block blob), Size (60.69 KB), and Lease state (Available). The system tray at the bottom right shows the date and time as 10-06-2022 20:44.

Here we can see our data is copied to destination blob

The screenshot shows the Microsoft Azure Data Factory interface. The left sidebar has 'Pipeline runs' selected. The main area displays a table of pipeline runs. One run is listed: 'CopyPipeline_flg' (Run start: Jun 10, 2022, 8:44:24 pm; Run end: Jun 10, 2022, 8:44:35 pm; Duration: 00:00:11; Triggered by: Manual trigger; Status: Succeeded). The top navigation bar shows 'Subscription Details | Nuvepro', 'destinationblob1 - Microsoft Azure', and 'ashokdatafactory99 - Azure Data'. The status bar at the bottom indicates '39°C Clear' and the date '10-06-2022'.

We can manually run this pipeline and we also can use triggers to automate this

To enable triggers go Manage → triggers → +new

The screenshot shows the Microsoft Azure Data Factory interface. The left sidebar has 'Triggers' selected. The right pane shows a 'Edit trigger' dialog for a trigger named 'trigger1'. The dialog fields include: Name (trigger1), Description (empty), Type (ScheduleTrigger), Start date (6/10/22 20:58:00), Time zone (Chennai, Kolkata, Mumbai, New Delhi (UTC+5:30)), Recurrence (Every 1 Minute(s)), and End On (6/11/22 21:03:00). There are also sections for Annotations and Status. The top navigation bar shows 'Subscription Details | Nuvepro', 'destinationblob1 - Microsoft Azure', and 'ashokdatafactory99 - Azure Data'. The status bar at the bottom indicates '39°C Clear' and the date '10-06-2022'.

Subscription Details | Nuvepro destinationblob1 - Microsoft Azure ashokdatafactory99 - Azure Data ...

adf.azure.com/en/management/triggers?factory=%2fsubscriptions%2f442b51c3-1fed-40a7-9d05-105684c1217c%2fResourceGroups%2fAshokrg99%2fproviders%2fMicrosoft.DataFacto...

ashokdatafactory99 - Azure Data ...

Microsoft Azure | ashokdatafactory99

Data Factory Validate all Publish all

Triggers

To execute a pipeline set the trigger. Triggers represent a unit of processing that determines when a pipeline execution needs to be kicked off.

+ New

Filter by name Annotations : Any

Showing 1 - 1 of 1 items

| Name | Type | Status | Related | Annotations |
|----------|----------|---------|---------|-------------|
| trigger1 | Schedule | Started | 0 | |

Home Author Monitor Manage

Connections Linked services Integration runtimes Microsoft Purview

Source control Git configuration ARM template

Author Triggers Global parameters Data flow libraries (preview)

Security Credentials Customer managed key Managed private endpoints

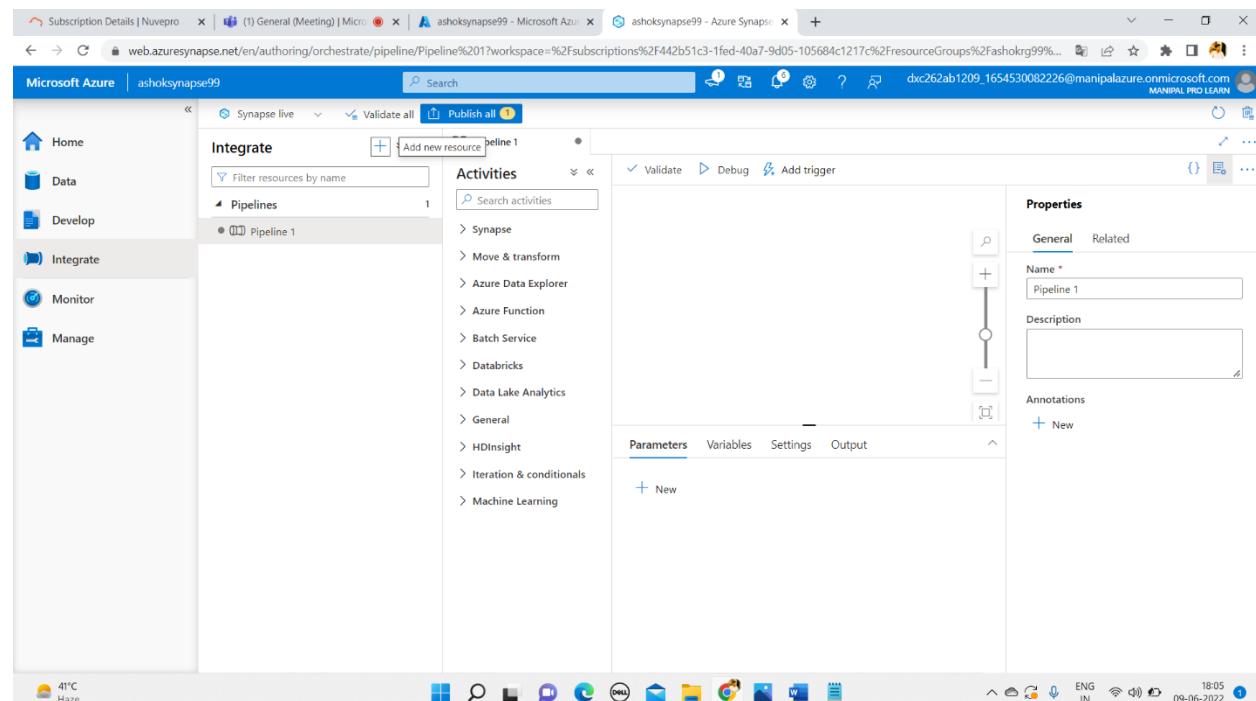
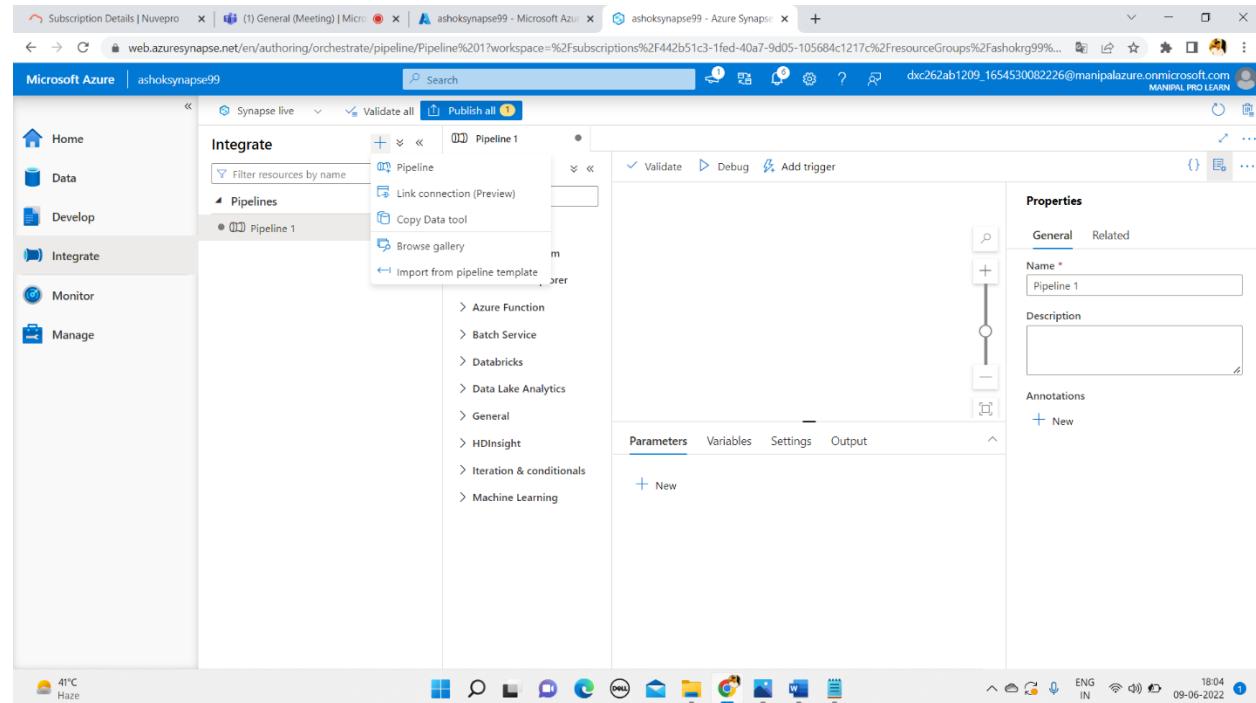
39°C Clear

ENG IN 10-06-2022 20:53

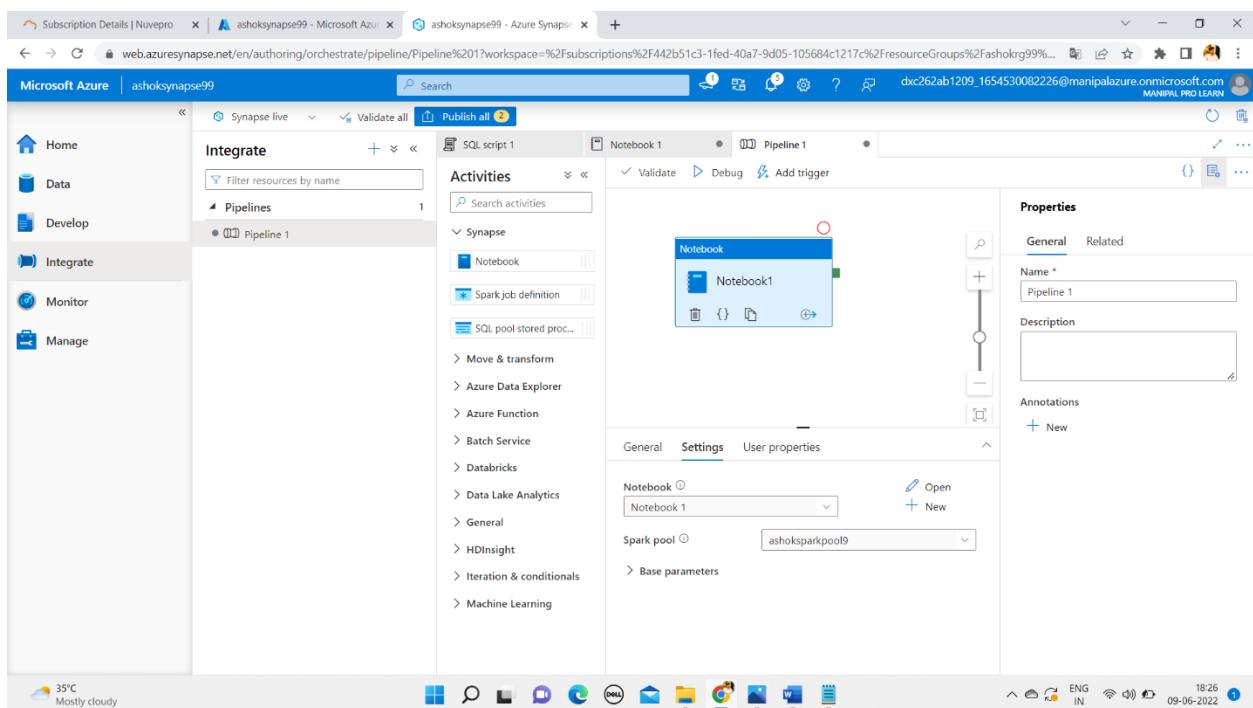
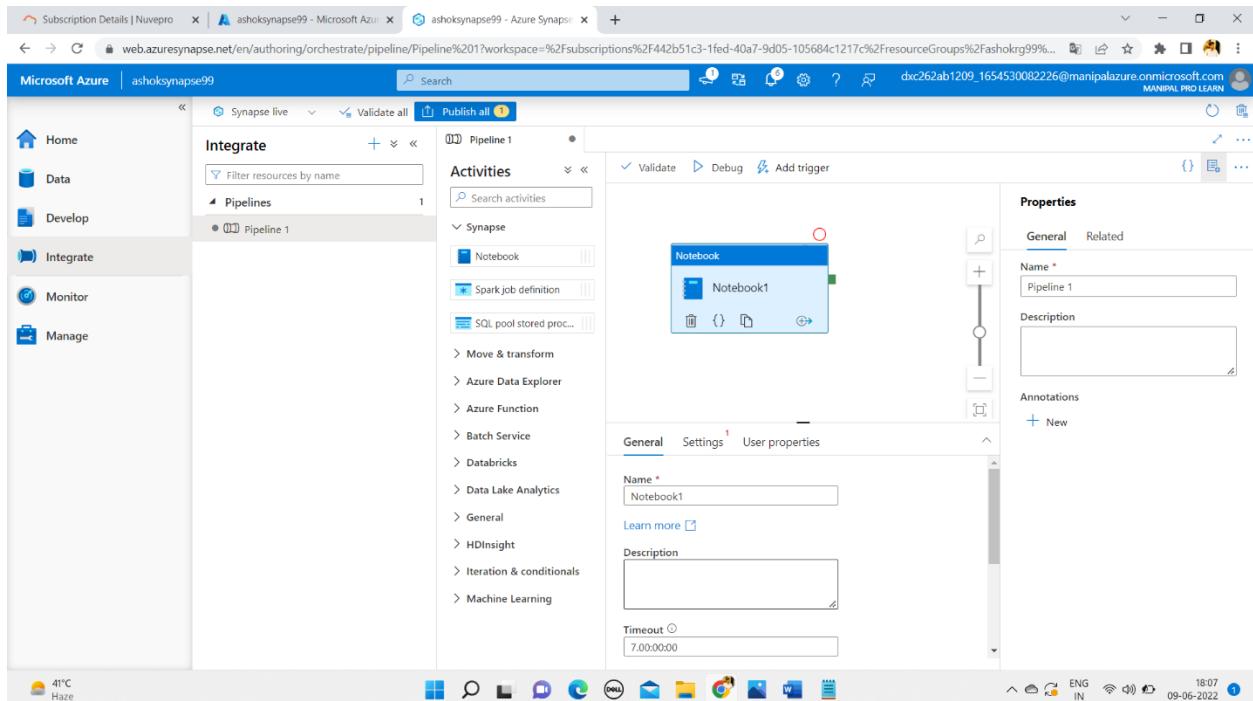
The screenshot shows the Microsoft Azure Data Factory interface. The left sidebar has 'Manage' selected. Under 'Author', 'Triggers' is selected. The main area displays a table of triggers. One trigger, 'trigger1', is listed with a status of 'Started'. The table has columns for Name, Type, Status, Related, and Annotations. The status column for 'trigger1' shows a green checkmark. The table header includes sorting arrows for each column. Below the table, there's a note about triggers executing pipelines. The bottom of the screen shows the Windows taskbar with various pinned icons and system status information like battery level and network connection.

Practical Lab: Create Azure blob trigger logic

click on Integrate → click on + → click on pipeline



Expand synapse and drag notebook



Click on publish all to publish the pipeline

Now click on add trigger to run pipeline.

The screenshot shows the Microsoft Azure Synapse Studio interface. The left sidebar has 'Integrate' selected. The main area shows 'Pipeline 1' under 'Activities'. A tooltip indicates 'Running Successfully running Pipeline 1 (Pipeline). View pipeline run'. The 'Properties' panel on the right shows 'Name' as 'Pipeline 1' and 'Description' as 'Pipeline 1'. The status bar at the bottom shows weather information (35°C, mostly cloudy) and system details (ENG IN, 09-06-2022, 18:28).

The screenshot shows the Microsoft Azure Pipeline runs page for the workspace 'ashoksynapse99'. The left sidebar navigation bar includes Home, Data, Develop, Integrate, Monitor (selected), and Manage. The main content area displays a table of pipeline runs:

| Pipeline name | Run start | Run end | Duration | Triggered by | Status | Error |
|---------------|-------------------------|-------------------------|----------|----------------|---|-------|
| Pipeline 2 | Jun 9, 2022, 6:30:37 pm | Jun 9, 2022, 6:34:24 pm | 00:03:46 | Manual trigger | Succeeded | |
| Pipeline 1 | Jun 9, 2022, 6:29:04 pm | Jun 9, 2022, 6:35:46 pm | 00:06:41 | Manual trigger | Succeeded | |
| Pipeline 1 | Jun 9, 2022, 6:28:17 pm | -- | 00:07:55 | Manual trigger | In progress | |

At the bottom of the page, there is a toolbar with icons for Windows, search, task manager, file explorer, internet browser, and other system utilities.

Now click on new/edit trigger

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu includes Home, Data, Develop, Integrate, Monitor, and Manage. Under the Integrate section, Pipelines is selected, showing Pipeline 1 and Pipeline 2. The main content area displays the 'Activities' blade with various options like Synapse, Move & transform, Azure Data Explorer, etc. To the right, a 'New trigger' dialog is open:

- Name:** Trigger 1
- Description:** (empty)
- Type:** Schedule
- Start date:** 6/9/22 18:40:00
- Time zone:** Chennai, Kolkata, Mumbai, New Delhi (UTC+5:30)
- Recurrence:** Every 1 Minute(s)
- Annotations:** New
- Start trigger:** Start trigger on creation

At the bottom are OK and Cancel buttons.

Now at 18:40:00 pipeline will be automatically triggered in every minute.

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu includes Home, Data, Develop, Integrate, Monitor, and Manage. Under the Integrate section, Pipeline runs is selected. The main content area displays the 'Pipeline runs' blade:

- Triggered:** Debug, Rerun, Cancel, Refresh, Edit columns, List, Gantt
- Filter by run ID or name:** Chennai, Kolkata, Mu... : Last 24 hours
- Pipeline name:** All
- Status:** All
- Runs:** Latest runs, Triggered by: All, Add filter
- Copy filters, Export to CSV**

A table lists 15 pipeline runs:

| Pipeline name | Run start | Run end | Duration | Triggered by | Status | Err |
|---------------|-------------------------|-------------------------|----------|----------------|-------------|-----|
| Pipeline 2 | Jun 9, 2022, 6:49:00 pm | Jun 9, 2022, 6:51:23 pm | 00:02:23 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:48:00 pm | Jun 9, 2022, 6:51:13 pm | 00:03:12 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:47:01 pm | Jun 9, 2022, 6:49:09 pm | 00:02:08 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:46:00 pm | -- | 00:05:26 | Trigger 1 | In progress | |
| Pipeline 2 | Jun 9, 2022, 6:45:00 pm | Jun 9, 2022, 6:47:42 pm | 00:02:42 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:44:00 pm | Jun 9, 2022, 6:50:13 pm | 00:06:13 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:43:00 pm | Jun 9, 2022, 6:47:03 pm | 00:04:03 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:42:00 pm | Jun 9, 2022, 6:46:36 pm | 00:04:35 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:41:00 pm | Jun 9, 2022, 6:43:37 pm | 00:02:37 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:40:00 pm | Jun 9, 2022, 6:44:41 pm | 00:04:40 | Trigger 1 | Succeeded | |
| Pipeline 2 | Jun 9, 2022, 6:30:37 pm | Jun 9, 2022, 6:34:24 pm | 00:03:46 | Manual trigger | Succeeded | |
| Pipeline 1 | Jun 9, 2022, 6:29:04 pm | Jun 9, 2022, 6:35:46 pm | 00:06:41 | Manual trigger | Succeeded | |
| Pipeline 1 | Jun 9, 2022, 6:28:17 pm | Jun 9, 2022, 6:38:30 pm | 00:10:12 | Manual trigger | Succeeded | |

At the bottom are Copy filters and Export to CSV buttons.

Subscription Details | Nuvepro | ashoksynapse99 - Microsoft Azure | ashoksynapse99 - Azure Synapse | +

Microsoft Azure | ashoksynapse99

All pipeline runs > Pipeline 2 - Activity runs

Pipeline 2

List Gantt

Rerun Rerun from activity Rerun from failed activity Refresh Update pipeline

Notebook Notebook1

+

Activity runs

Pipeline run ID: 3802c524-a8ff-4472-9f33-d4936501c770

All status ▾

Showing 1 - 1 of 1 items

| Activity name | Activity type | Run start | Duration | Status | Error | Log |
|---------------|---------------|-------------------------|----------|-----------|-------|-----|
| Notebook1 | Notebook | Jun 9, 2022, 6:49:01 pm | 00:02:21 | Succeeded | | |

35°C Mostly cloudy

18:52 ENG IN 09-06-2022

The screenshot displays the Microsoft Azure portal's interface for managing Azure Synapse Pipelines. The main content area is titled 'Pipeline 2 - Activity runs'. On the left, a sidebar lists various Azure services: Analytics pools, SQL pools, Apache Spark pools, Data Explorer pools (preview), Activities (SQL requests, KQL requests, Apache Spark applications, Data flow debug), Integration (Trigger runs, Integration runtimes, Link connections), and Pipeline runs (which is currently selected). The central area shows a single activity named 'Notebook1' under the 'Notebook' category. Below this, a table provides detailed information about the activity run, including its name, type, start time, duration, status (Succeeded), and log link. The status column indicates a green checkmark for 'Succeeded'. The bottom of the screen shows the Windows taskbar with various pinned icons and system status indicators.

Practical Lab: Create Azure SQL Server and Database

The screenshot shows two windows side-by-side. The left window displays the 'SQL databases' page in the Azure portal, showing a large 'No SQL databases to display' message with a 'Create SQL database' button. The right window shows the 'Create SQL Database' wizard, specifically the 'Basics' tab, where a new database named 'ashokdb99' is being created under the 'ashokrg99' resource group and 'Azure - D XC262AB12Lab' subscription.

Subscription Details | Nuvepro **SQL databases - Microsoft Azure**

portal.azure.com/#view/HubsExtension/BrowseResource/resourceType/Microsoft.Sql%2fservers%2fdatabases

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

dx262ab1209.1654530... MANIPAL PRO LEARN (MANIPAL...)

Home > SQL databases

No SQL databases to display

Try changing or clearing your filters.

Create SQL database Learn more

Give feedback

38°C Haze

Subscription Details | Nuvepro **Create SQL Database - Microsoft**

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

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

dx262ab1209.1654530... MANIPAL PRO LEARN (MANIPAL...)

Home > SQL databases >

Create SQL Database

Basics Networking Security Additional settings Tags Review + create

Create a SQL database with your preferred configurations. Complete the Basics tab then go to Review + Create to provision with smart defaults, or visit each tab to customize. [Learn more](#)

Did you know? Did you know that new users in Azure can create a free Azure SQL Database and use it for 12 months using Azure free account? [Learn more](#)

Project details

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

Subscription * Resource group *

Database details

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

Database name *

Review + create **Next : Networking >**

Subscription Details | Nuvepro +

Create SQL Database Server - Microsoft Azure +

portal.azure.com/#view/SqlAzureExtension/SharedCreateServer/isNewServer~/true/subscriptionId/442b51c3-1fed-40a7-9d05-105684c1217c/resourceGroupName/ashokrg99/info... ...

Microsoft Azure ...

Search resources, services, and docs (G+)

Home > SQL databases > Create SQL Database

Create SQL Database Server

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 * .database.windows.net

Location *

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

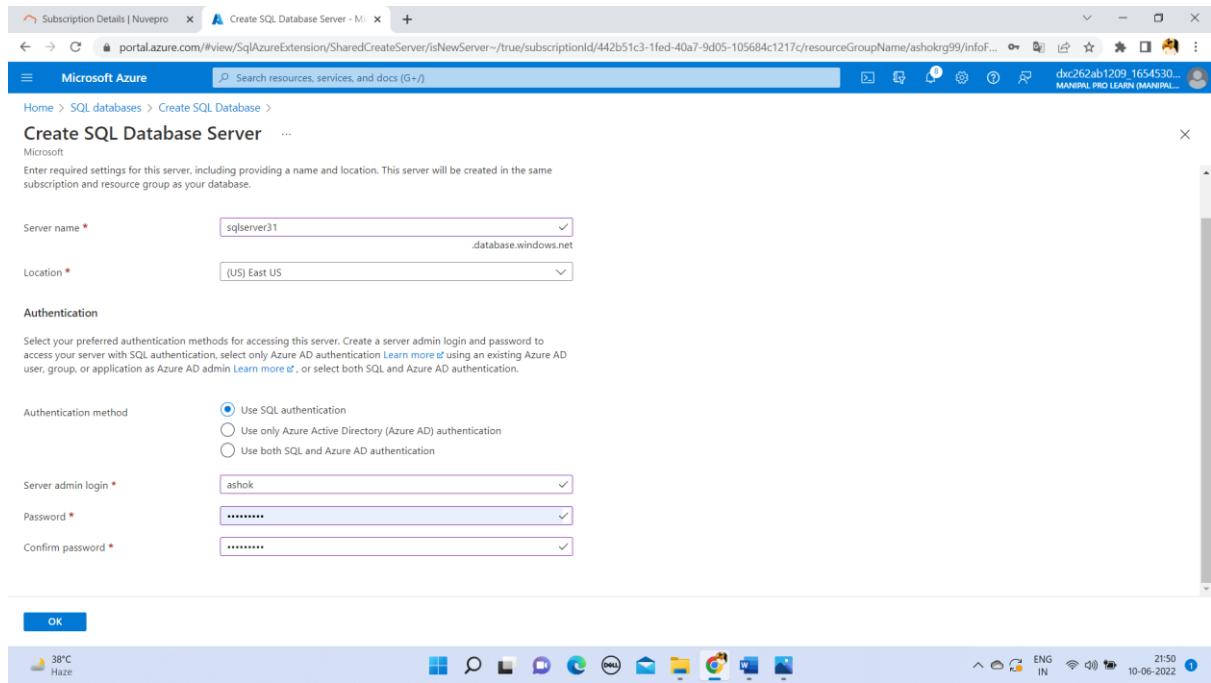
Server admin login *

Password *

Confirm password *

OK

38°C Haze ENG IN 21:50 10-06-2022



Subscription Details | Nuvepro +

Configure - Microsoft Azure +

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

Microsoft Azure ...

Search resources, services, and docs (G+)

Home > SQL databases > Create SQL Database

Configure

Feedback

Service tier

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 confidential computing hardware depends on the region, service tier, and compute tier.

Hardware Configuration

Max vCores

Min vCores

Cost summary

Gens - General Purpose (GP_5_Gen5_I)
Cost per GB (in -)
Max storage selected (in GB)

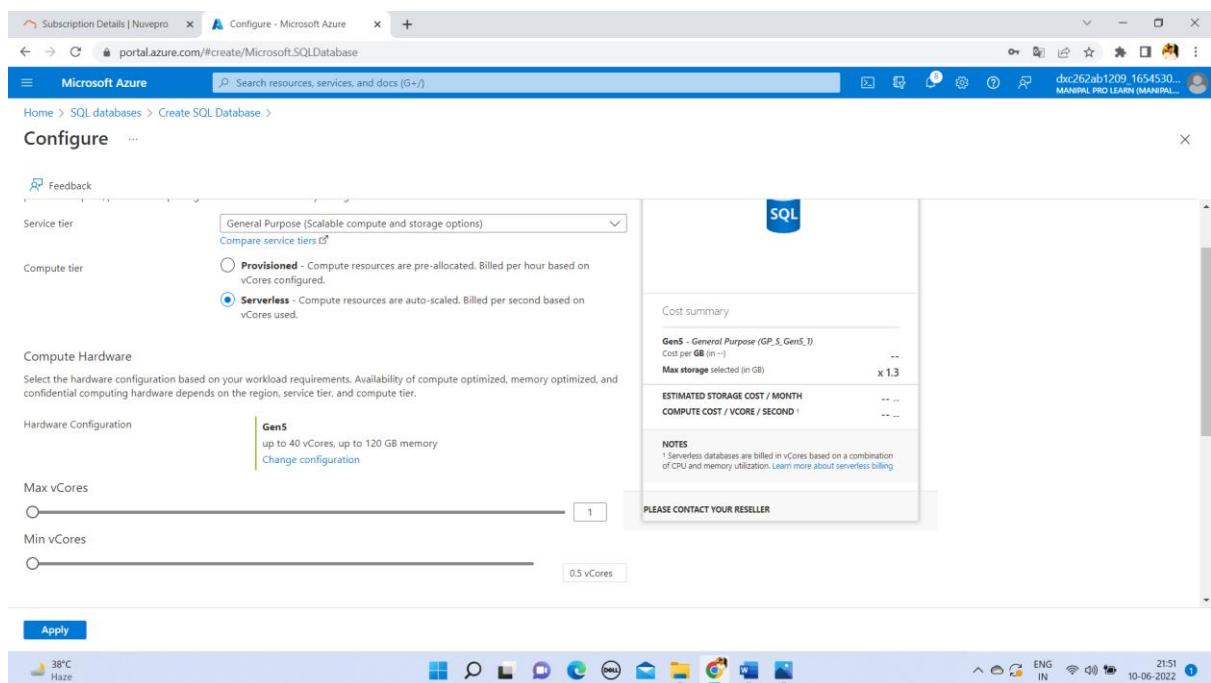
ESTIMATED STORAGE COST / MONTH COMPUTE COST / VCORE / SECOND

NOTES
1. Serverless databases are billed in vCores based on a combination of CPU and memory utilization. Learn more about serverless billing.

PLEASE CONTACT YOUR RESELLER

Apply

38°C Haze ENG IN 21:51 10-06-2022



Subscription Details | Nuvepro > Create SQL Database - Microsoft... > portal.azure.com/#create/Microsoft.SQLDatabase

Microsoft Azure Search resources, services, and docs (G+) dxc262ab1209_1654530... MANIPAL PRO LEARN (MANIPAL)

Home > SQL databases > Create SQL Database ...

Basics Networking Security Additional settings Tags Review + create

Product details

SQL database by Microsoft Terms of use | Privacy policy

Estimated cost
Storage cost --- / month + Compute cost --- / vCore / second
[View pricing details](#)

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. For additional details see [Azure Marketplace Terms](#).

Basics

| | |
|-----------------------|---------------------|
| Subscription | Azure-DXC262AB12Lab |
| Resource group | ashokrg99 |
| Region | East US |
| Database name | ashokdb99 |
| Server | (new) sqlserver31 |
| Authentication method | SQL authentication |
| Server admin login | ashok |

Create < Previous Download a template for automation

38°C Haze ENG IN 21:51 10-06-2022

Subscription Details | Nuvepro > Microsoft.SQLDatabase.newData... > portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/overview/id/%2Fsubscriptions%2F442b51c3-1fed-40a7-9d05-105684c1217c%2FresourceGroups%2Fashokrg99...> Microsoft Azure Search resources, services, and docs (G+) dxc262ab1209_1654530... MANIPAL PRO LEARN (MANIPAL)

Home > Microsoft.SQLDatabase.newDatabaseNewServer_ce7080dad9174f4abe939 | Overview

Deployment Search (Ctrl+)

Overview Deployment We'd love your feedback!

Your deployment is complete

Deployment name: Microsoft.SQLDatabase.newDatabaseNewServer_ce7080dad9174f4abe939 Start time: 6/10/2022, 9:52:03 PM
Subscription: Azure-DXC262AB12Lab Correlation ID: 36dad420-ea10-41cd-a799-0a828c0c1c89

Deployment details (Download) Next steps Go to resource

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 >](#)

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 >](#)

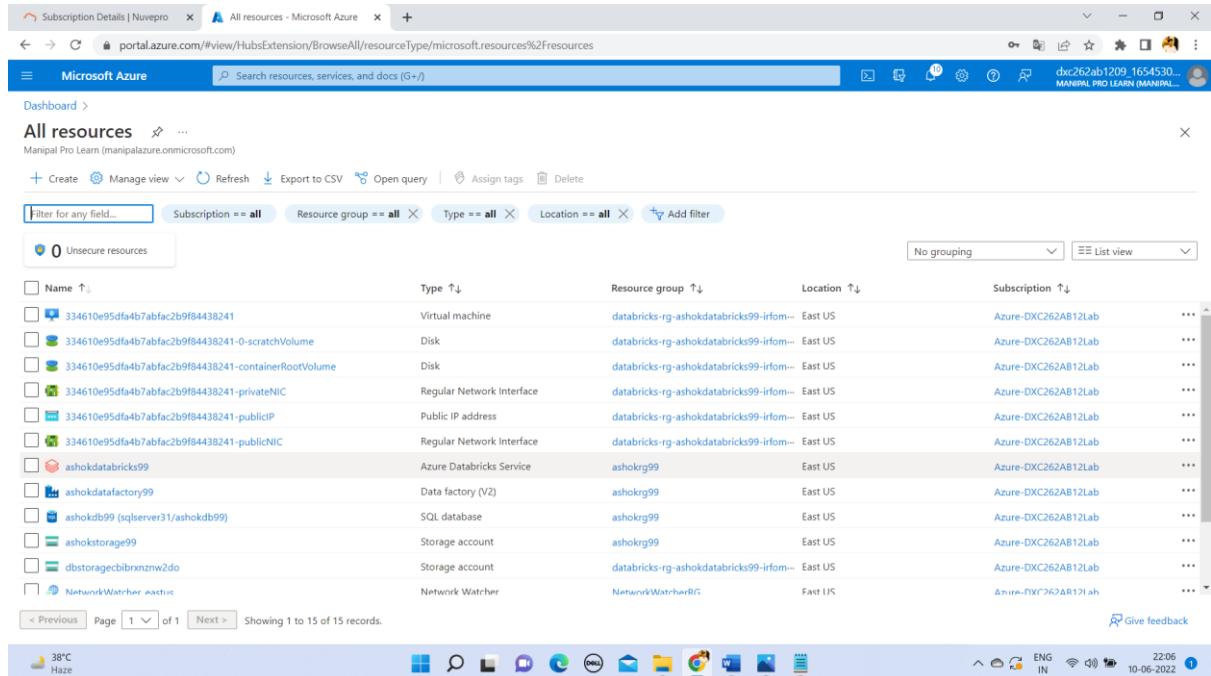
38°C Haze ENG IN 21:58 10-06-2022

The screenshot shows two consecutive views of the Microsoft Azure SQL Database Query Editor (preview).
The top view displays the login screen where 'ashok' is entered into the 'Login' field. Below it, the 'Password' field contains a masked password. To the right, there are buttons for 'Continue as dxc262ab1209_1654530082...', 'OK', and 'Cancel'.
The bottom view shows the results of a query. The query itself is: `1 SELECT * FROM address;`. The results pane displays a table with the following data:

| address_id | address_building_n... | address_street | address_locality | address_city | address_zip_postal |
|------------|-----------------------|----------------|------------------|---------------|--------------------|
| 1 | 555 | azure203Demo | | Los Angeles | 91001 |
| 2 | 555 | azure203Demo | | Toronto | 7777 |
| 3 | 555 | azure203Demo | Boonies | Somewhere | 11111 |
| 4 | 555 | azure203Demo | | San Francisco | 91001 |

Practical Lab: Add another pipelines for moving data from Staging to SQL DB

Conclusion: I learned about azure data factory, sql server and database and pipeline and triggers.



| Name | Type | Resource group | Location | Subscription |
|--|---------------------------|--|----------|---------------------|
| 334610e95dfa4b7abfac2b9f84438241 | Virtual machine | databricks-rg-ashokdatabricks99-irfom... | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f84438241-0-scratchVolume | Disk | databricks-rg-ashokdatabricks99-irfom... | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f84438241-containerRootVolume | Disk | databricks-rg-ashokdatabricks99-irfom... | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f84438241-privateNIC | Regular Network Interface | databricks-rg-ashokdatabricks99-irfom... | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f84438241-publicIP | Public IP address | databricks-rg-ashokdatabricks99-irfom... | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f84438241-publicNIC | Regular Network Interface | databricks-rg-ashokdatabricks99-irfom... | East US | Azure-DXC262AB12Lab |
| ashokdatabricks99 | Azure Databricks Service | ashokrg99 | East US | Azure-DXC262AB12Lab |
| ashokdatafactory99 | Data factory (V2) | ashokrg99 | East US | Azure-DXC262AB12Lab |
| ashokdb99 (sqlserver31/ashokdb99) | SQL database | ashokrg99 | East US | Azure-DXC262AB12Lab |
| ashokstorage99 | Storage account | ashokrg99 | East US | Azure-DXC262AB12Lab |
| dbstoragegecibnxnw2do | Storage account | databricks-rg-ashokdatabricks99-irfom... | East US | Azure-DXC262AB12Lab |
| NetworkWatcher 9aefc | Network Watcher | NetworkWatcherRG | East US | Azure-DXC262AB12Lab |

References: <https://docs.microsoft.com/>

Name: Ashok kumar

Reg No: DXC-262-AB-1233

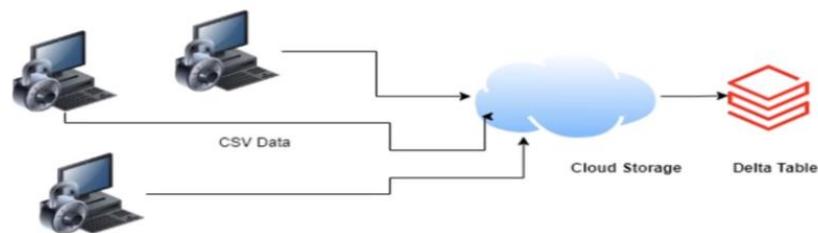
Project2 Name: AP Morgan Data Platform

Date: 10/06/2022

Project 2: AP Morgan Data Platform

Project 2 : AP Morgan

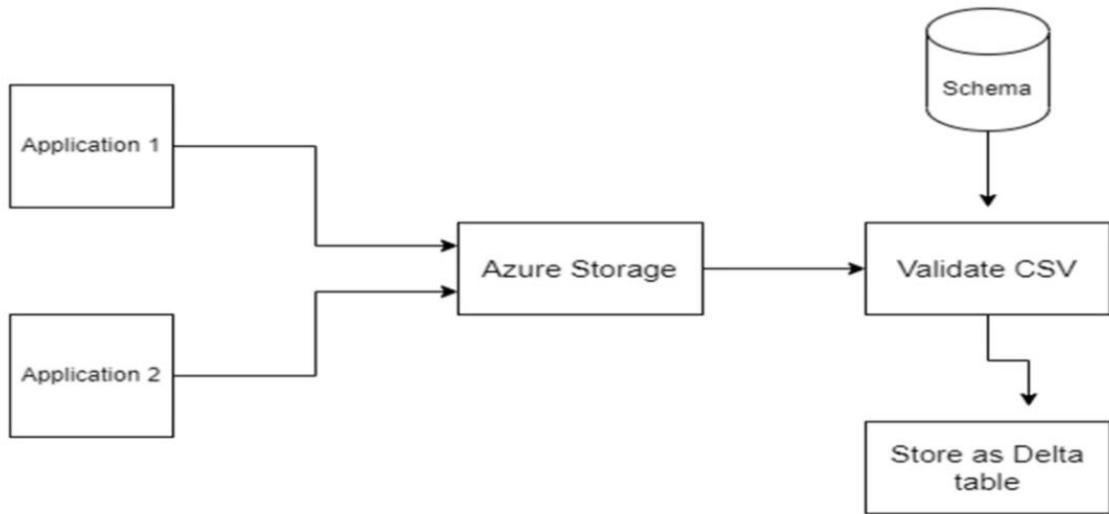
- Multiple Internal applications sends the data(huge size) in CSV format on daily basis in the cloud storage location. There are couple of Data/schema validation needed to be performed on this incoming data. Once everything is passed data to be persisted as Delta table in Databricks for downstream system.



Project 2 : AP Morgan- High Level Detail

- Internal Application sends CSV file in Azure data lake storage.
- Validation needed to apply on this follows:
 - Check for duplicate rows. If it contains duplicate rows, file need to be rejected.
 - Need to validate the date format for all the date fields. Date column names and desired date format is stored in a Azure SQL server. If validation fails file will be rejected.
- Move all the rejected files to Reject folder.
- Move all the passed files to Staging folder.
- Write the passed files as the Delta table in the Azure Databricks

Project 2 : AP Morgan



Practical Lab: Create a Databricks

go to databricks section on azure portal

The screenshot shows the Azure portal interface with the following details:

- Header:** Subscription Details | Nuvapro, Azure Databricks - Microsoft Az..., ashodatafactory99 - Azure Data...
Microsoft Azure Search resources, services, and docs (G+)
- Page Title:** Azure Databricks
- Content:** No azure databricks services to display
Unlock insights from all your data and build artificial intelligence (AI) solutions with Azure Databricks, set up your Apache Spark environment in minutes, autoscale, and collaborate on shared projects in an interactive workspace.
[Create azure databricks service](#) [Learn more](#)
- Bottom Bar:** 38°C Haze, Windows taskbar with various icons like File Explorer, Task View, Mail, and Edge browser, system tray showing battery, signal, and date/time (10-06-2022, 21:17).

Subscription Details | Nuvelpro > Create an Azure Databricks workspace > ashokdatafactory99 - Azure Data... > +

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

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

Home > Azure Databricks > Create an Azure Databricks workspace ...

Basics Networking Advanced Tags Review + create

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 * ashokrg99

Create new

Instance Details

Workspace name *

ashokdatabricks99

Region *

East US

Pricing Tier *

Trial (Premium - 14-Days Free DBUs)

Review + create

< Previous

Next : Networking >



Subscription Details | Nuvelpro > Create an Azure Databricks workspace > ashokdatafactory99 - Azure Data... > +

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

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

Home > Azure Databricks > Create an Azure Databricks workspace ...

Validation Succeeded

Basics Networking Advanced Tags Review + create

Summary

Basics

Workspace name ashokdatabricks99
Subscription Azure-DXC262AB12Lab
Resource group ashokrg99
Region East US
Pricing Tier trial

Networking

Deploy Azure Databricks workspace with No
Secure Cluster Connectivity (No Public IP)
Deploy Azure Databricks workspace in No
your own Virtual Network (VNet)

Advanced

Enable Infrastructure Encryption No

Create

< Previous

Download a template for automation



Subscription Details | Nuvelpro x ashokrg99_ashokdatabricks99 - | ashodatafactory99 - Azure Data x +

Microsoft Azure Search resources, services, and docs (G+) dx262ab1209_1654530... MANIPAL PRO LEARN (MANIPAL)

Home > ashokrg99_ashokdatabricks99 | Overview x ...

Deployment

Search (Ctrl+ /) Delete Cancel Redeploy Refresh

We'd love your feedback! →

Your deployment is complete

Deployment name: ashokrg99_ashokdatabricks99
Subscription: Azure-DXC262AB12Lab
Resource group: ashokrg99

Start time: 6/10/2022, 9:18:04 PM
Correlation ID: 1568c2ae-571c-40aa-b8f8-1bcfcf91ced

Deployment details (Download)
Next steps Go to resource

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 >

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 >

38°C Haze

Subscription Details | Nuvelpro x ashokdatabricks99 - Microsoft A x ashodatafactory99 - Azure Data x +

Microsoft Azure Search resources, services, and docs (G+) dx262ab1209_1654530... MANIPAL PRO LEARN (MANIPAL)

Home > ashokrg99_ashokdatabricks99 >

ashokdatabricks99 Azure Databricks Service

Search (Ctrl+ /) Delete

Overview Activity log Access control (IAM) Tags

Settings Virtual Network Peerings Encryption Properties Locks

Automation Tasks (preview) Export template

Support + troubleshooting New Support Request

Essentials

| | |
|--|--|
| Status : Active | Managed Resource Group : databricks-rg-ashokdatabricks99-irfomyml2ibq4 |
| Resource group : ashokrg99 | URL : https://adb-8845575078916038.18.azuredatabricks.net |
| Location : East US | Pricing Tier : Trial (Premium - 14-Days Free DBUs) |
| Subscription : Azure-DXC262AB12Lab | |
| Subscription ID : 442b51c3-1fed-40a7-9d05-105684c1217c | |
| Tags (edit) : Click here to add tags | |

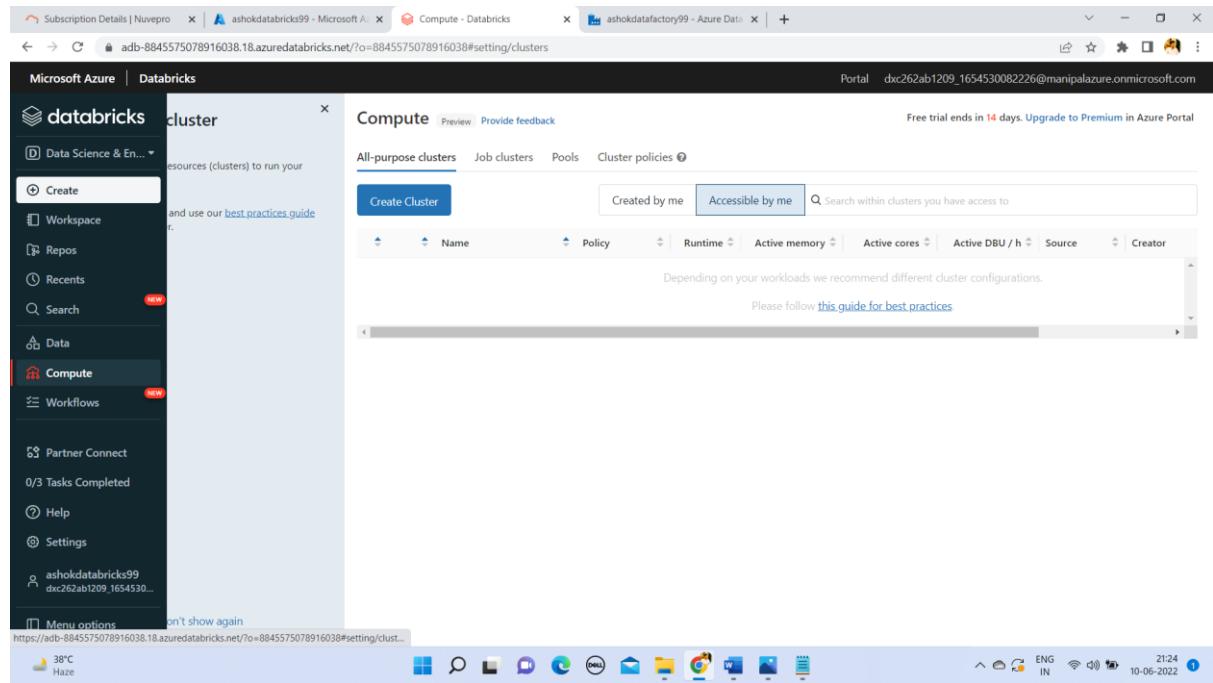
JSON View

Launch Workspace Upgrade to Premium

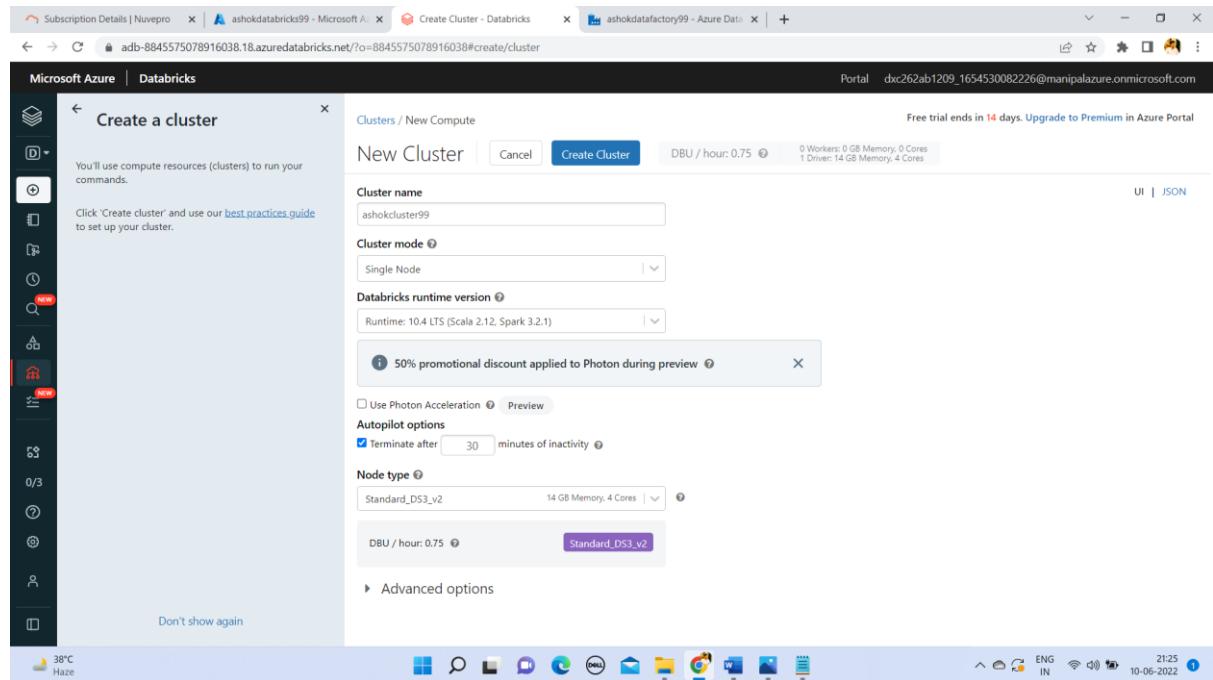
Documentation Getting Started Import Data from File Import Data from Azure Storage

38°C Haze

Practical Lab: Create Cluster in Azure Databricks



The screenshot shows the Microsoft Azure Databricks Compute page. On the left, there's a sidebar with various options like Data Science & ML, Workspace, Repos, Recents, Search, Data, Compute (which is selected), and Workflows. The main area is titled 'Compute' and has tabs for 'All-purpose clusters', 'Job clusters', 'Pools', and 'Cluster policies'. A prominent blue button labeled 'Create Cluster' is visible. Below it, there's a search bar and a table with columns for Name, Policy, Runtime, Active memory, Active cores, Active DBU/h, Source, and Creator. A note at the bottom says 'Depending on your workloads we recommend different cluster configurations.' and 'Please follow [this guide for best practices](#)'.



The screenshot shows the 'Create a cluster' dialog box. It has fields for 'Cluster name' (set to 'ashokcluster99'), 'Cluster mode' (set to 'Single Node'), and 'Databricks runtime version' (set to 'Runtime: 10.4 LTS (Scala 2.12, Spark 3.2.1)'). There's a message box stating '50% promotional discount applied to Photon during preview'. Under 'Autopilot options', there's a checked checkbox for 'terminate after 30 minutes of inactivity'. The 'Node type' dropdown is set to 'Standard_DS3_v2' (14 GB Memory, 4 Cores). At the bottom, there's a link for 'Advanced options'.

Subscription Details | Nuvelpro | ashokdatabricks99 - Microsoft A... | Create Cluster - Databricks | ashokdatafactory99 - Azure Data | +

ashdb-8845575078916038.18.azuredatabricks.net/?o=8845575078916038#setting/clusters/0610-155517-ajf1k3q8/configuration

Microsoft Azure | Databricks

Create a cluster

Completed

You'll use compute resources (clusters) to run your commands.

Click 'Create cluster' and use our [best practices guide](#) to set up your cluster.

Next step

Ingest data

Clusters / ashokcluster99

ashokcluster99

Free trial ends in 14 days. Upgrade to Premium in Azure Portal

Configuration Notebooks Libraries Event log Spark UI Driver logs Metrics Apps Spark cluster UI - Master

More ... Edit Terminate

Policy: Unrestricted

Cluster mode: Single Node

Databricks Runtime Version: 10.4 LTS (includes Apache Spark 3.2.1, Scala 2.12)

Use Photon Acceleration [Preview](#)

Autopilot options: Terminate after 30 minutes of inactivity

Node type: Standard_DS3_v2 (14 GB Memory, 4 Cores)

DBU / hour: 0.75 Standard_DS3_v2

Advanced options

Don't show again

38°C Haze

21:28 10-06-2022

Subscription Details | Nuvelpro | ashokdatabricks99 - Microsoft A... | Compute - Databricks | ashokdatafactory99 - Azure Data | +

ashdb-8845575078916038.18.azuredatabricks.net/?o=8845575078916038#setting/clusters

Microsoft Azure | Databricks

Create a cluster

Completed

You'll use compute resources (clusters) to run your commands.

Click 'Create cluster' and use our [best practices guide](#) to set up your cluster.

Next step

Ingest data

Compute

Preview Provide feedback

All-purpose clusters Job clusters Pools Cluster policies

Free trial ends in 14 days. Upgrade to Premium in Azure Portal

Create Cluster

| Name | Policy | Runtime | Active memory | Active cores | Active DBU / h | Source | Creator |
|----------------|--------|---------|---------------|--------------|----------------|--------|-----------|
| ashokcluster99 | - | 10.4 | 14 GB | 4 cores | 0.75 | UI | dxc262ab1 |

Don't show again

38°C Haze

21:28 10-06-2022

Practical Lab: Add notebook in Databricks and Implement the Business Logic

The screenshot shows the Microsoft Azure Databricks interface. On the left, there's a sidebar with various icons and a progress bar labeled 'Completed'. The main area has a title 'Compute' and a sub-section 'Create Notebook'. It contains fields for 'Name' (set to 'ashoknotebook99'), 'Default Language' (set to 'Python'), and 'Cluster' (set to 'ashokcluster99'). At the bottom right of this dialog are 'Cancel' and 'Create' buttons. To the right of the dialog, there's a table showing cluster details: 14 GB, 4 cores, 0.75 DBU, and a creator email 'dxc262ab1209_1654530082226@manipalazure.onmicrosoft.com'. A message at the top right says 'Free trial ends in 14 days. Upgrade to Premium in Azure Portal'. The status bar at the bottom shows the date '10-06-2022' and time '21:31'.

The screenshot shows the Microsoft Azure Databricks notebook interface. On the left, there's a sidebar with a progress bar labeled 'Completed'. The main area shows a notebook titled 'ashoknotebook99' in Python. The code in the first cell is:1 x = 100
2 y = 200
3 print (x+y)The output of the cell is '300'. Below the code, a note says 'Command took 0.07 seconds -- by dxc262ab1209_1654530082226@manipalazure.onmicrosoft.com at 6/10/2022, 9:33:16 PM on ashokcluster99'. A note at the bottom says 'Shift+Enter to run'. The status bar at the bottom shows the date '10-06-2022' and time '21:33'.

Practical Lab: **Azure Data Factory** For AP Morgan

Practical Lab: **Create Azure Databricks Linked Service in ADF**

Conclusion: I learned to create azure data bricks and how to create cluster in data bricks. I also learned that how to create notebook in data bricks and how to connect data bricks to different different services like data factory etc. I also got to know that how to automate jobs in data bricks.

The screenshot shows the Microsoft Azure 'All resources' page. The URL is <https://portal.azure.com/#view/HubsExtension/BrowseAll/resourceType/microsoft.resources%2fResources>. The page displays a list of 15 resources, each with a checkbox, name, type, resource group, location, and subscription information. The resources include various Azure services such as Virtual machines, Disks, Regular Network Interface, Public IP address, Azure Databricks Service, Data factory, SQL database, Storage account, Storage account, and Network Watcher. The subscription for most resources is 'Azure-DXC262AB12Lab'. The location for all resources is 'East US' except for one which is 'East US (Region)'. The screenshot also shows the Windows taskbar at the bottom with various pinned icons.

| Name | Type | Resource group | Location | Subscription |
|--|---------------------------|---|----------|---------------------|
| 334610e95dfa4b7abfac2b9f94438241 | Virtual machine | databricks-rg-ashokdatabricks99-irform- | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f94438241-0-scratchVolume | Disk | databricks-rg-ashokdatabricks99-irform- | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f94438241-containerRootVolume | Disk | databricks-rg-ashokdatabricks99-irform- | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f94438241-privateNIC | Regular Network Interface | databricks-rg-ashokdatabricks99-irform- | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f94438241-publicIP | Public IP address | databricks-rg-ashokdatabricks99-irform- | East US | Azure-DXC262AB12Lab |
| 334610e95dfa4b7abfac2b9f94438241-publicNIC | Regular Network Interface | databricks-rg-ashokdatabricks99-irform- | East US | Azure-DXC262AB12Lab |
| ashokdatabricks99 | Azure Databricks Service | ashokrg99 | East US | Azure-DXC262AB12Lab |
| ashokdatafactory99 | Data factory (V2) | ashokrg99 | East US | Azure-DXC262AB12Lab |
| ashokdb99 (sqlserver31/ashokdb99) | SQL database | ashokrg99 | East US | Azure-DXC262AB12Lab |
| ashokstorage99 | Storage account | ashokrg99 | East US | Azure-DXC262AB12Lab |
| dbstoragecblbrnzmw2do | Storage account | databricks-rg-ashokdatabricks99-irform- | East US | Azure-DXC262AB12Lab |
| NetworkWatcher active | Network Watcher | NetworkWatcherRG | East US | Azure-DXC262AB12Lab |

References: <https://docs.microsoft.com/>