

The screenshot shows the Microsoft Azure portal with a deployment page for 'Microsoft.MachineLearningServices'. The status bar indicates 'Deployment is in progress'. Deployment details include a start time of 1/17/2022, 3:02:35 PM, and a correlation ID of b4b8ca44-58b3-4cd7-9c39-564620cf7c33. A table shows 'No results' under deployment details.

After deployment is completed

The screenshot shows the Microsoft Azure portal with a deployment page for 'Microsoft.MachineLearningServices'. The status bar indicates 'Your deployment is complete'. Deployment details show a start time of 1/17/2022, 3:02:35 PM, and a correlation ID of b4b8ca44-58b3-4cd7-9c39-564620cf7c33. A sidebar on the right provides links to Microsoft Defender for Cloud, free tutorials, and expert work opportunities.

While clicking on 'Go to resource'

The screenshot shows the Microsoft Azure portal interface. The main title bar reads "azureml_ws - Microsoft Azure". The left sidebar has a "Machine learning" section with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, and Events. Below this are sections for Settings (Networking, Identity, Properties, Locks) and Monitoring (Alerts, Metrics). The central content area displays the "Essentials" tab of the workspace configuration, listing details such as Resource group: Azureml_b01, Location: Central India, Subscription: Azure subscription 1, Subscription ID: 76002742-0a9e-44d5-9d98-143f3a2bf30f, Storage: azuremlws0884903555, Studio web URL: https://ml.azure.com/?id=587c3529-50b9-4386-bd82-d836a48ac831&ws..., Registry: ..., Key Vault: azuremlws1135222253, Application Insights: azuremlws8866983679, and MLflow tracking URI: azureml://centralindia.api.azureml.ms/mlflow/v1.0/subscriptions/7600274... . A "Manage your machine learning lifecycle" section with a "Launch studio" button is also present.

Further need to click on launch studio, will lead to following page which contains all the ML components

The screenshot shows the Microsoft Azure Machine Learning Studio home page. The title bar reads "Microsoft Azure Machine Learning Studio". The left sidebar includes a "New" button, "Home", "Author", "Notebooks", "Automated ML", "Designer", "Assets", "Datasets", "Experiments", "Pipelines", "Models", "Endpoints", "Compute", "Environments", "Datastores", "Data Labeling", and "Linked Services". The main content area features a "Welcome to the Azure Machine Learning Studio" section with four cards: "Create new" (Notebooks), "Notebooks" (Code with Python SDK and run sample experiments), "Automated ML" (Automatically train and tune a model using a target metric), and "Designer" (Drag-and-drop interface from prepping data to deploying models). Below this is a "Recent resources" section with tabs for "Runs", "Compute", "Models", and "Datasets". The "Runs" tab is selected, showing a table with columns: Display name, Experiment, Status, Submitted time, Submitted..., and Run type. The status column shows entries like "Completed" and "Running". The bottom of the screen shows the Windows taskbar with icons for File Explorer, Task View, Edge, Google Chrome, and others, along with system status indicators.

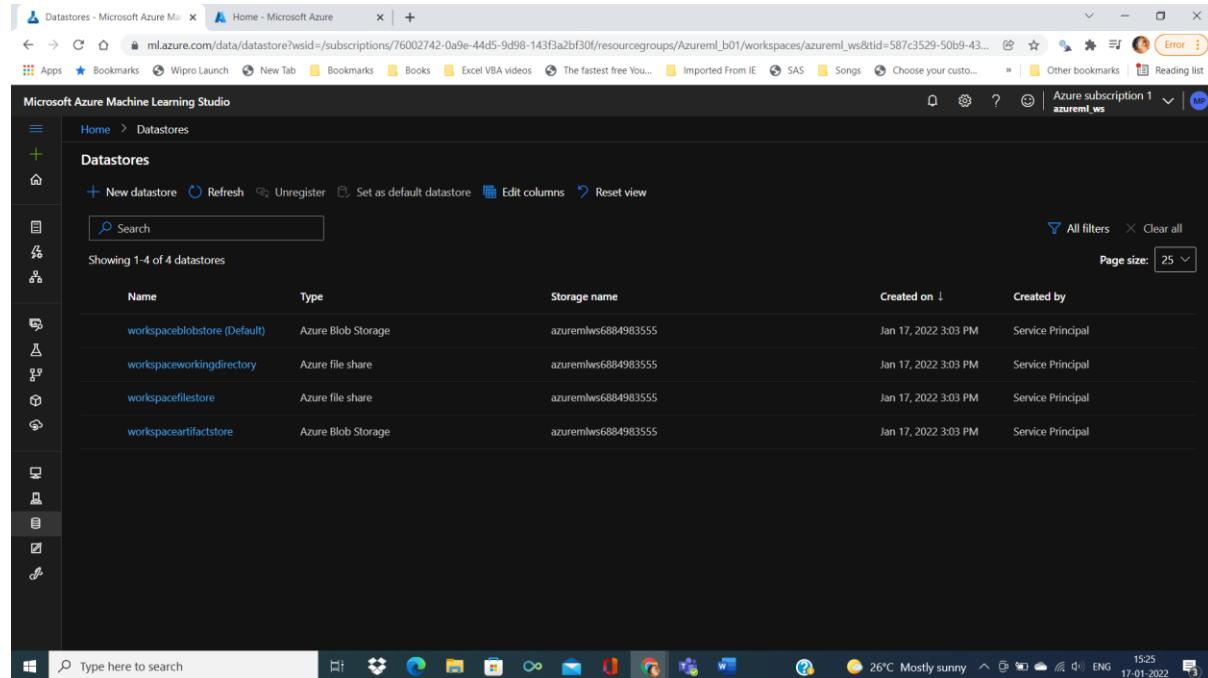
Creating AzureML Datastore and Dataset

Dataset can be procured from the LocalFiles, from web files

Initial stored in Blob Storage , SQL DB , analytic service

Storage type are azure sql, databricks, PostgreSQL and MySQL,Datalake,files and Blob storage

Using authentication(access Key) we can able to access from the data store (stores the access information) from AzureML workspace for machine learning task



The screenshot shows the Microsoft Azure Machine Learning Studio interface. The left sidebar has icons for Home, Datastores, Experiments, Datasets, Metrics, and Help. The main area is titled 'Datastores' and shows a list of four datastores:

Name	Type	Storage name	Created on	Created by
workspaceblobstore (Default)	Azure Blob Storage	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal
workspaceworkingdirectory	Azure file share	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal
workspacefilestore	Azure file share	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal
workspaceartifactstore	Azure Blob Storage	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal

The status bar at the bottom shows a search bar, taskbar icons, and system information: 26°C Mostly sunny, 15:25, 17-01-2022.

By clicking on azure blob we can able to see the detail information as below

The screenshot shows the Microsoft Azure Machine Learning Studio interface. A Datastore named "workspaceblobstore" is selected. The "General" tab is active, displaying the following details:

- Datastore name:** workspaceblobstore
- Datastore type:** Azure Blob Storage
- Created by:** Service Principal
- Subscription ID:** 76002742-0a9e-44d5-9d98-143f3a2bf30f
- Resource group name:** azureml_b01
- Protocol:** https
- Endpoint:** core.windows.net
- Account name:** azuremlws6884983555
- Blob container:** azuremlblobstore-56a78134-e860-46b3-a3f0-2aec6cafd324
- Data URL:** <https://azuremlws6884983555.blob.core.windows.net/azuremlblobstore-56a78134-e860-46b3-a3f0-2aec6cafd324>
- Created on:** Jan 17, 2022 3:03 PM

The status bar at the bottom shows the search bar, taskbar icons, and system information like temperature (26°C), weather (Mostly sunny), date (17-01-2022), and time (15:27).

Again by clicking on Account name

The screenshot shows the Azure Storage account page for "azuremlws6884983555". The left sidebar includes options like Overview, Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, and Storage browser (preview). The "Data storage" section is highlighted with a red circle and contains links for Containers, File shares, Queues, and Tables.

The main content area displays the following details:

Resource group (move)	: Azureml_b01	Performance/Access tier	: Standard/Hot
Location	: Central India	Replication	: Locally-redundant storage (LRS)
Subscription (move)	: Azure subscription 1	Account kind	: StorageV2 (general purpose v2)
Subscription ID	(Redacted)	Provisioning state	: Succeeded
Disk state	: Available	Created	: 1/17/2022, 3:02:37 PM

Below this, there are tabs for Properties, Monitoring, Capabilities (7), Recommendations, Tutorials, and Developer Tools. Under Properties, there are sections for Blob service, Security, and Networking, each with various configuration settings.

So if we enter into the container we can able to see the blob storage info

The screenshot shows the Azure Storage Explorer interface. The left sidebar has a tree view with 'azuremlwls6884983555' as the account name. Under 'Data storage', 'Containers' is selected, which is highlighted in grey. Other options like 'File shares', 'Queues', and 'Tables' are also listed. The main area is titled 'Containers' and contains a search bar with 'Search containers by prefix' and a dropdown menu. Below the search bar is a table with columns: 'Name', 'Last modified', 'Public access level', and 'Lease state'. There are three rows in the table:

Name	Last modified	Public access level	Lease state
\$logs	1/17/2022, 3:03:26 PM	Private	Available
azureml	1/17/2022, 3:03:30 PM	Private	Available
azureml-blobstore-56a78134-e860-46b3-a3f0-2aec6caf324	1/17/2022, 3:03:30 PM	Private	Available

On the far right of each row are three vertical dots (...). A checkbox labeled 'Show deleted containers' is located at the top right of the table area.

Good practice of storing the external file or dataset is from separate storage account

Home > Create a resource > Marketplace >

Storage account

Microsoft

 Storage account Add to Favorites

Microsoft ★ 4.2 (1748 Azure ratings)

Create

Overview Plans Usage Information + Support Reviews

Microsoft Azure provides scalable, durable cloud storage, backup, and recovery solutions for any data, big or small. It works with the infrastructure you already have to cost-effectively enhance your existing applications and business continuity strategy, and provide the storage required by your cloud applications, including unstructured text or binary data such as video, audio, and images.

More products from Microsoft See All

 Device Update for IoT Hub Microsoft Azure Service Securely and Reliably update your devices with Device Update for IoT	 Front Door Standard/Premium Microsoft Azure Service Reliably and securely deliver content to your users with Front Door	 Azure VMware Solution Microsoft Azure Service Reliably and securely deliver content to your users with Front Door	 API App Microsoft Azure Service Reliably and securely deliver content to your users with Front Door
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Create a storage account

Basics Advanced Networking Data protection Encryption Tags Review + create

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)
 Premium: Recommended for scenarios that require low latency.

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

Review + create < Previous Next : Advanced >

azurestoreaccount01_1642414202925 | Overview

Deployment

Search (Ctrl+ /) Delete Cancel Redeploy Refresh

We'd love your feedback! →

Deployment is in progress

Deployment name: azurestoreaccount01_1642414202925
Subscription: Azure subscription 1
Resource group: Azuremi_b01

Start time: 1/17/2022, 3:40:06 PM
Correlation ID: 9a5ed5a9-5368-430d-a185-9665ce0fbf13

Deployment details (Download)

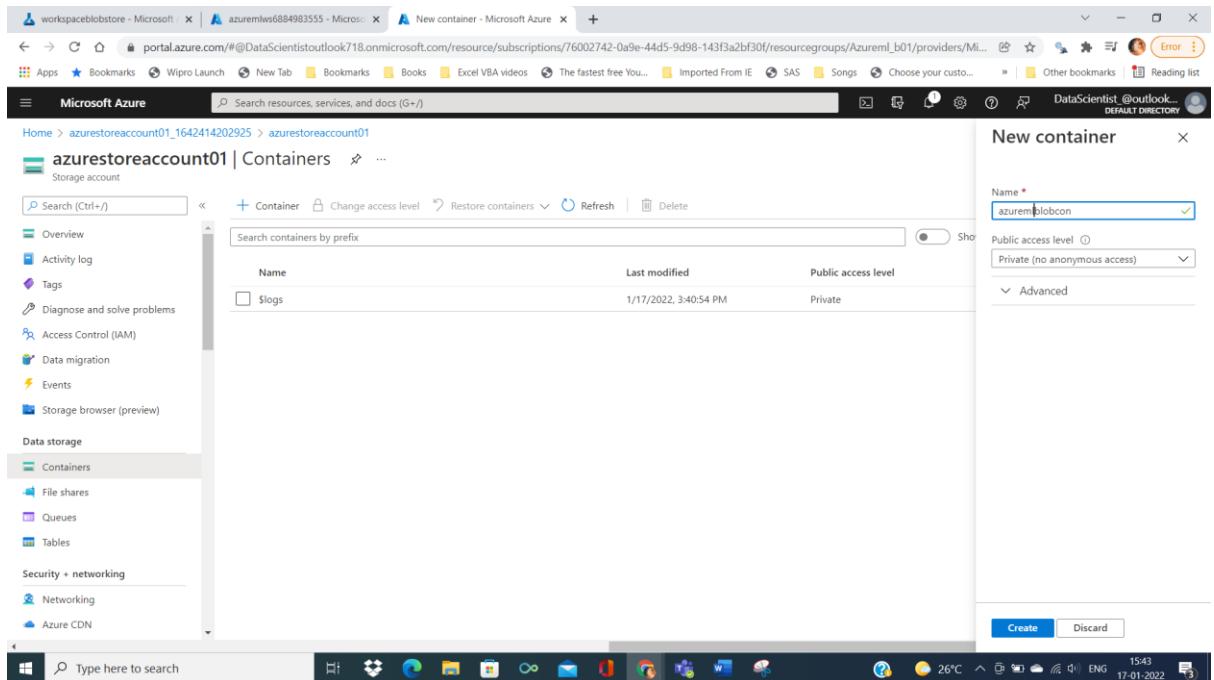
Resource	Type	Status	Operation details
No results.			

After deployment is completed

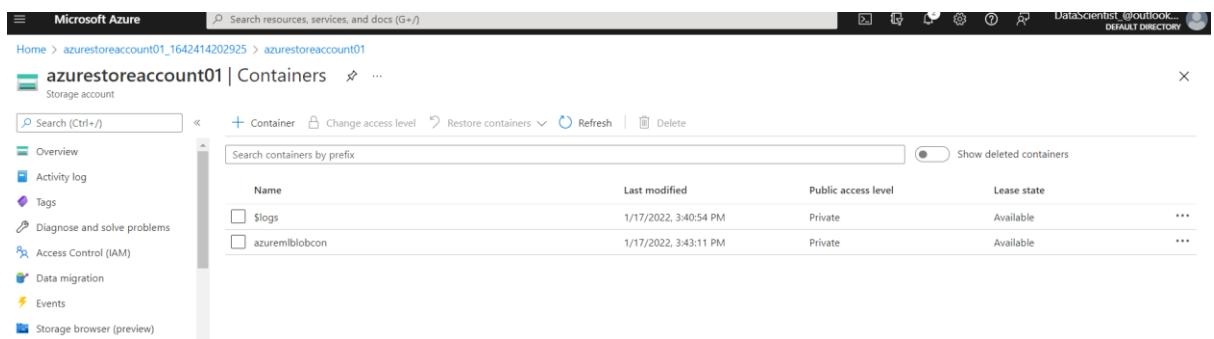
The screenshot shows the Microsoft Azure portal interface. The main title bar reads "azurestoreaccount01_1642414202925 | Overview". On the left, there's a navigation sidebar with "Overview" selected. The main content area displays a green checkmark indicating "Your deployment is complete". It shows deployment details: "Deployment name: azurestoreaccount01_1642414202925", "Subscription: Azure subscription 1", "Resource group: Azureml_b01", "Start time: 1/17/2022, 3:40:06 PM", and "Correlation ID: 9a5ed5a9-5368-430d-a185-9665ce0bf13". Below this, there are sections for "Deployment details" (with a download link) and "Next steps". A blue button labeled "Go to resource" is visible. To the right, there are promotional links for "Microsoft Defender for Cloud", "Free Microsoft tutorials", and "Work with an expert". The bottom of the screen shows a Windows taskbar with various pinned icons.

The screenshot shows the Microsoft Azure portal interface. The main title bar reads "azurestoreaccount01 | Containers". The left sidebar has "Containers" selected under "Data storage". The main content area shows a table of containers. There is one entry: "\$logs". The table includes columns for "Name", "Last modified", "Public access level", and "Lease state". The "Last modified" column shows "1/17/2022, 3:40:54 PM". The "Public access level" column shows "Private". The "Lease state" column shows "Available". A "Show deleted containers" link is also present. The bottom of the screen shows a Windows taskbar with various pinned icons.

Creating the container



A screenshot of a Microsoft Edge browser window showing the Azure Storage account interface. The left sidebar shows 'Storage account' options like Overview, Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, and Storage browser (preview). The main area shows 'Containers' with one entry: '\$logs'. A right-hand panel titled 'New container' is open, showing fields for 'Name' (set to 'azuremlblobcon'), 'Public access level' (set to 'Private (no anonymous access)'), and an 'Advanced' section. At the bottom are 'Create' and 'Discard' buttons.



A screenshot of the same Microsoft Edge browser window after creating the 'azuremlblobcon' container. The 'Containers' list now includes both '\$logs' and 'azuremlblobcon'. The 'azuremlblobcon' container is marked as 'Available'.

By clicking on the new container we can see the empty blob

The screenshot shows the Microsoft Azure Storage Blob Container page. The container name is 'azuremlobcon'. The 'Overview' tab is selected. The table below shows 'No results'. The left sidebar includes sections for Overview, Diagnose and solve problems, Access Control (IAM), Settings, Shared access tokens, Access policy, Properties, and Metadata.



Final created the storage account

Creating new datastore

The screenshot shows the Microsoft Azure Machine Learning Studio Datastores page. The 'New datastore' dialog is open. The 'Datastore name' field is empty. The 'Datastore type' is set to 'Azure Blob Storage'. Under 'Account selection method', the 'From Azure subscription' radio button is selected. The 'Subscription ID' dropdown shows 'Azure subscription 1 (76002742-0a9e-44d5-9d98-143f3a2bf30f)'. The 'Storage account' dropdown shows 'Loading...'. The 'Blob container' dropdown is empty with the placeholder 'Select or search by name'. A note at the bottom says 'No containers: This storage account has no containers, please choose another account.' There are 'Create' and 'Cancel' buttons at the bottom right.

The screenshot shows the Microsoft Azure Machine Learning Studio interface. On the left, there's a sidebar with icons for Home, Datastores, Datasets, Models, Experiments, Pipelines, and Metrics. The main area displays a list of four datastores:

Name	Type	Storage name
workspaceblobstore (Default)	Azure Blob Storage	azuremlws6884983555
workspaceworkingdirectory	Azure file share	azuremlws6884983555
workspacefilestore	Azure file share	azuremlws6884983555
workspaceartifactstore	Azure Blob Storage	azuremlws6884983555

To the right, a modal window titled "New datastore" is open, prompting for storage account and blob container details. It also includes options for saving credentials and using workspace managed identity.

Account key need to be taken from storage account

The screenshot shows the Microsoft Azure portal page for the storage account "azurerestoreaccount01". The left sidebar lists categories like Data storage, Security + networking, and Data management. The main content area displays the storage account's properties, including its resource group (Azureml_b01), location (South India), and various access and security settings. A JSON View button is visible on the right.

The screenshot shows the 'Access keys' section of an Azure Storage account named 'azurestoreaccount01'. The left sidebar includes options like Data storage, Security + networking, and Data management. The main area displays two sets of keys: 'key1' and 'key2'. Each key has a 'Rotate key' button, a 'Key' input field, and a 'Connection string' input field. A note at the top says: 'Access keys authenticate your applications' requests to this storage account. Keep your keys in a secure location like Azure Key Vault, and replace them often with new keys. The two keys allow you to replace one while still using the other.' Below this, there's a reminder to 'Remember to update the keys with any Azure resources and apps that use this storage account.' A 'Learn more' link is provided.

The screenshot shows the 'Datastores' list page. The table header includes columns for Name, Type, Storage name, Created on, and Created by. One row, 'azuredatalake_b01', is highlighted with a red oval. The 'Created by' column for this row shows 'Manjunath Prasad'. The table also lists other datastores: 'workspaceblobstore (Default)', 'workspaceworkingdirectory', 'workspacefilestore', and 'workspaceartifactstore', all created by 'Service Principal'.

Name	Type	Storage name	Created on	Created by
azuredatalake_b01	Azure Blob Storage	azurestoreaccount01	Jan 17, 2022 4:20 PM	Manjunath Prasad
workspaceblobstore (Default)	Azure Blob Storage	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal
workspaceworkingdirectory	Azure file share	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal
workspacefilestore	Azure file share	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal
workspaceartifactstore	Azure Blob Storage	azuremlws6884983555	Jan 17, 2022 3:03 PM	Service Principal

By clicking the azureblob storage and clicking on Azuremlblob

Name	Last modified	Public access level	Lease state
\$logs	1/17/2022, 3:40:54 PM	Private	Available
azuremlblobcon	1/17/2022, 3:43:11 PM	Private	Available

File can be uploaded using 'upload button'

Name	Modified	Access tier	Archive status	Blob type
fdata.csv	1/17/2022, 6:31:14 PM	Hot (Inferred)		Block blob

But to load the multiple files we can uploading using storage browser in previous tab

Home > azurestoreaccount01

azurestoreaccount01 | Containers

Storage account

Search (Ctrl+ /)

+ Container □ Change access level ⚙ Restore containers Refresh Delete

Search containers by prefix Show deleted containers

Name	Last modified	Public access level	Lease state
Slogs	1/17/2022, 3:40:54 PM	Private	Available
azuremlblobcon	1/17/2022, 3:43:11 PM	Private	Available

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

Data storage

Containers File shares

The 'Storage browser (preview)' link in the left sidebar is highlighted with a blue oval.

Home > azurestoreaccount01

azurestoreaccount01 | Storage browser (preview)

Storage account

Search (Ctrl+ /)

+ Add container □ Upload ⚙ Refresh Delete ⚙ Change access level ⚙ Restore containers Edit columns

Search containers by prefix Only show active containers

Showing all 2 items

Name	Last modified	Public access level	Lease state
Slogs	1/17/2022, 3:40:54 PM	Private	Available
azuremlblobcon	1/17/2022, 3:43:11 PM	Private	Available

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

Blob containers

File shares Queues Tables

The 'azuremlblobcon' blob container is highlighted with a blue oval.

Two files were uploaded

Microsoft Azure

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

Home > azurestoreaccount01

azurestoreaccount01 | Storage browser (preview)

Storage account

Search (Ctrl+ /)

+ Add Directory □ Upload ⚙ Refresh Delete

Search blobs by prefix (case-sensitive)

Authentication method: Access key (Switch to Azure AD User Acc)

Showing all 2 items

Name	Last modified
[..]	1/17/2022, 6:53:06 P
TrainInsuSample.csv	1/17/2022, 6:53:09 P
fdata.csv	1/17/2022, 6:53:09 P

Upload blob

Successfully uploaded blob(s)
Successfully uploaded 2 blob(s).

Drag and drop files here or Browse for files

Overwrite if files already exist

Advanced

Upload

Current uploads

Dismiss: Completed All

fdata.csv 39.74 KiB / 39.74 KiB

TrainInsuSample.csv 991.37 KiB / 991.37 KiB

Storage browser (preview)

Containers File shares Queues Tables

From the previous process , containers were created and mounted to the folder with datafile

Now we'll creating dataset from azure studio

The screenshot shows the Microsoft Azure Machine Learning Studio interface. The left sidebar has a 'Datasets' section with 'Registered datasets' and 'Dataset monitors (preview)'. A central banner features a cloud icon with arrows and the text: 'Register datasets to manage, share, and track data in your machine learning workflows.' Below the banner, it says: 'With Azure Machine Learning datasets, you can keep a single copy of data in your storage referenced by datasets and seamlessly access data during model training without worrying about connection strings or data paths. [Learn more](#)'.

At the bottom of the main area, there are two buttons: 'Create dataset' and 'Explore Github repository' (with a link to 'View Azure Machine Learning tutorials'). The status bar at the bottom shows the URL https://ml.azure.com/data?wsid=/subscriptions/76002742-0a9e-44d5-9d98-143f3a2bf30f/resourcegroups/Azureml_b01/workspaces/azureml_ws&tid=587c3529-50b9-4386-bd82-d326a43ac321, the date/time '13:23 19-01-2022', and system information like '26°C Partly sunny'.

The screenshot shows the 'Create dataset from datastore' wizard in the Microsoft Azure Machine Learning Studio. The left sidebar shows 'Datasets' and 'Registered datasets'. The main area has a title 'Create dataset from datastore' and a vertical navigation bar on the left with steps: 'Basic info', 'Datastore selection', 'Settings and preview', 'Schema', and 'Confirm details'. The 'Basic info' step is active, showing fields for 'Name' (Dataset name), 'Dataset type' (Tabular), and 'Description'. At the bottom are 'Back', 'Next', and 'Cancel' buttons.

azureml_ws - Microsoft Azure Datasets - Microsoft Azure Machine Learning Studio

Create dataset from datastore

Basic info

Datastore selection

Settings and preview

Schema

Confirm details

Datastore selection

Select or create a datastore azuredatystore.b01 Create new datastore

Path LoanDSDir\data.csv

To include files in subfolders, append ";" after the folder name like so: "[Folder1]"; To filter by a file type, use *extension*, such as *.csv

Skip data validation Advanced settings

Back Next Cancel

Type here to search

26°C Partly sunny 13:26 19-01-2022

azureml_ws - Microsoft Azure Datasets - Microsoft Azure Machine Learning Studio

Create dataset from datastore

Basic info

Datastore selection

Settings and preview

Schema

Confirm details

Settings and preview

These settings were automatically detected. Please verify that the selections were made correctly or update.

Encoding UTF-8

Column headers All files have same headers

Skip rows None

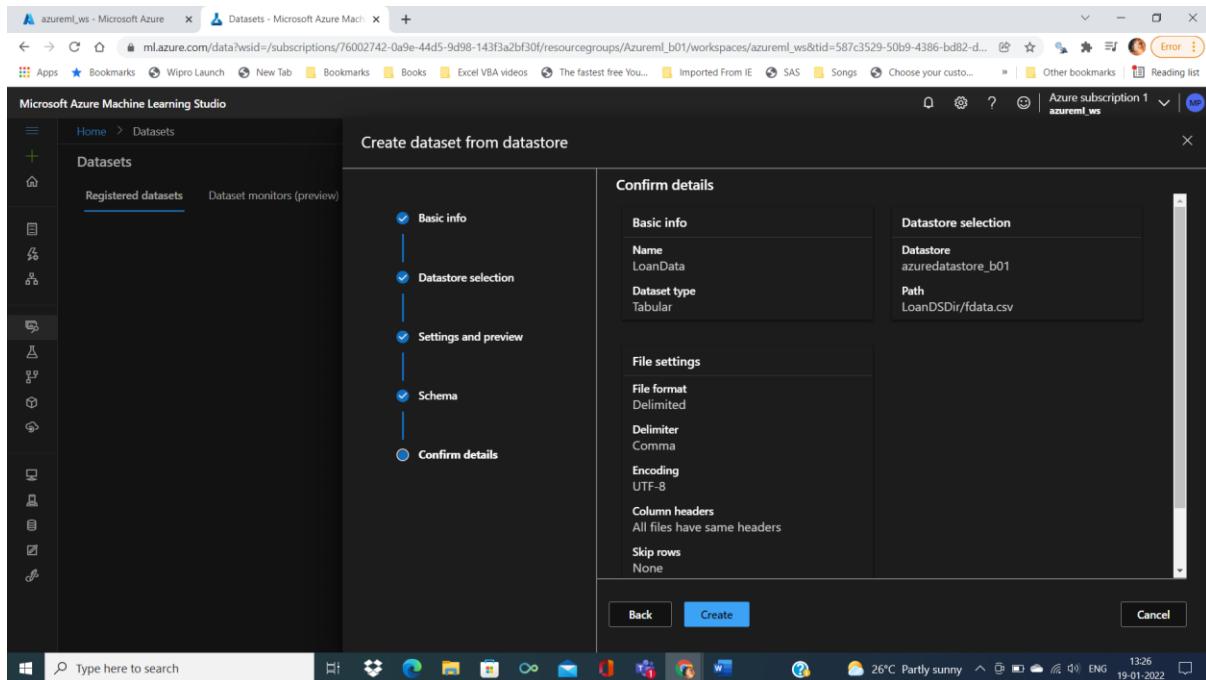
Dataset contains multi-line data Note: Processing tabular files with multi-line data is slower because multiple CPU cores cannot be used to ingest the data in parallel. Checking this option may result in slower processing times.

ID	Column1	Gender	Married	Dependents
1	1	Male	true	1
2	2	Male	true	0
3	3	Male	true	0

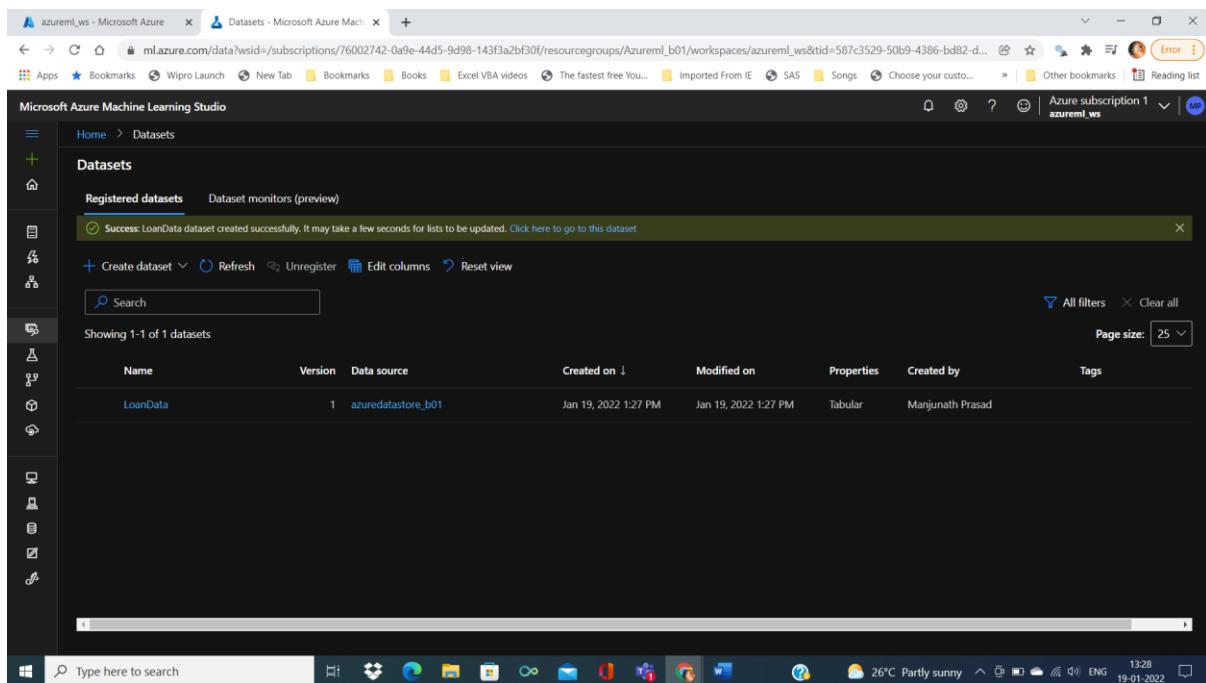
Back Next Cancel

Type here to search

26°C Partly sunny 13:27 19-01-2022



Click on create to complet the process of creating dataset from within AzureStudio



By double clicking on loandata, we can able to see the details, Exploration (summary info)

azureml_ws - Microsoft Azure + LoanData - Microsoft Azure Machine Learning Studio

ml.azure.com/dataset/LoanData/latest/details?wsid=/subscriptions/76002742-0a9e-44d5-9d98-143f3a2bf30f/resourcegroups/Azureml_b01/workspaces/azureml_ws&tid=58...

Apps Bookmarks Wipro Launch New Tab Bookmarks Books Excel VBA videos The fastest free You... Imported From IE SAS Songs Choose your custo... Other bookmarks Reading list

Azure subscription 1 azureml_ws Error

Microsoft Azure Machine Learning Studio

Home > Datasets > LoanData

LoanData Version 1 (latest)

Details Consume Explore Models

New version Refresh Generate profile Unregister

Preview Profile

Number of columns: 13 Number of rows: 592

Column Profile Type Min Max Count Missing count

CoapplicantIncome

LoanAmount

Box and whisker plot: LoanA...

Box and whiskers plot: LoanA...

Type: Decimal, Min: 9, Max: 700, Count: 592, Missing count: 0

Type here to search

26°C Partly sunny 13:30 19-01-2022

Creating Compute Instance and Cluster

Microsoft Azure Machine Learning Studio

Home > Compute

Compute

Compute instances Compute clusters Inference clusters Attached computes



Get started with Azure Machine Learning notebooks and R scripts by creating a compute instance

Choose from a selection of CPU or GPU instances preconfigured with popular tools such as JupyterLab, Jupyter, and RStudio, ML packages, deep learning frameworks, and GPU drivers. [Learn more](#)

+ New



Microsoft Azure Machine Learning Studio

Create compute cluster [?](#)

Virtual Machine Advanced Settings

Select virtual machine
Location [*](#)
Central India

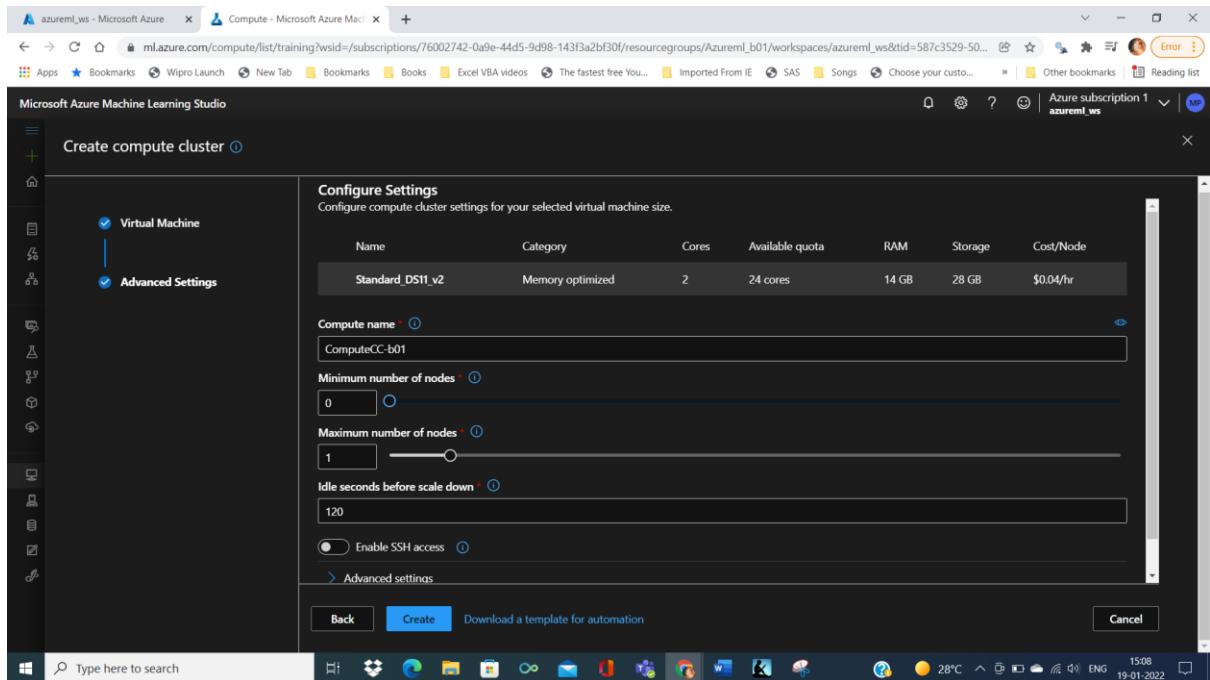
Virtual machine tier [?](#)
 Dedicated Low priority

Virtual machine type [?](#)
 CPU GPU

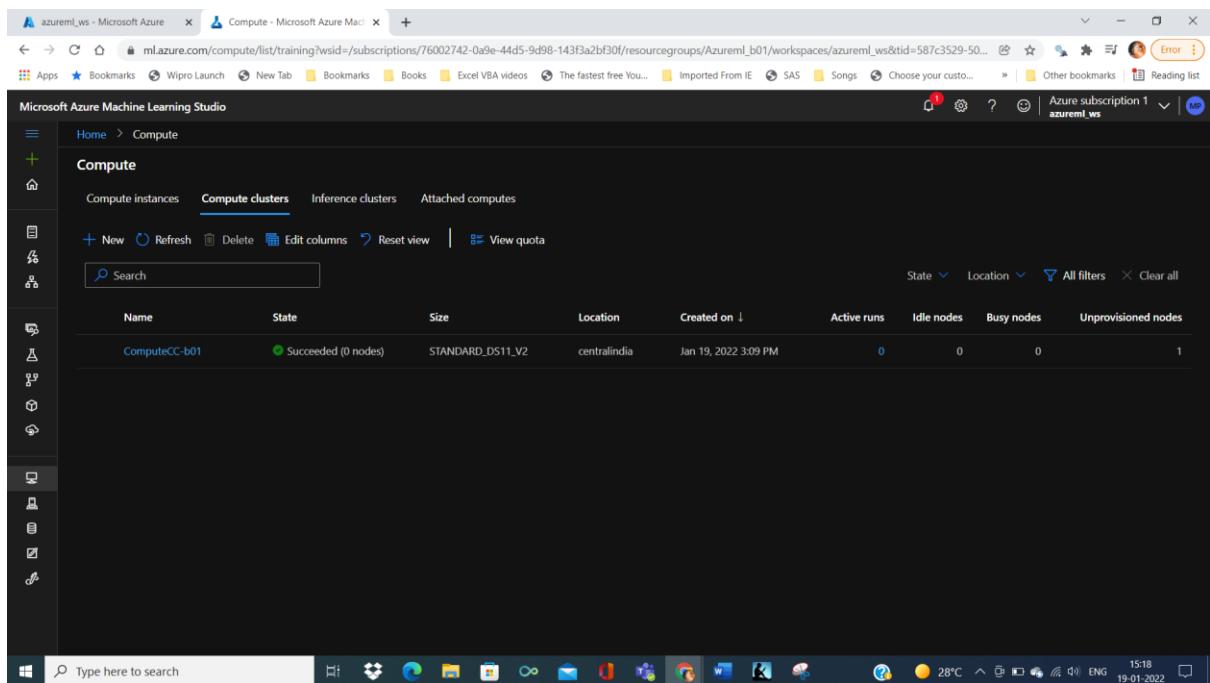
Virtual machine size [?](#)
 Select from recommended options Select from all options

Total available quota: 24 cores [?](#)

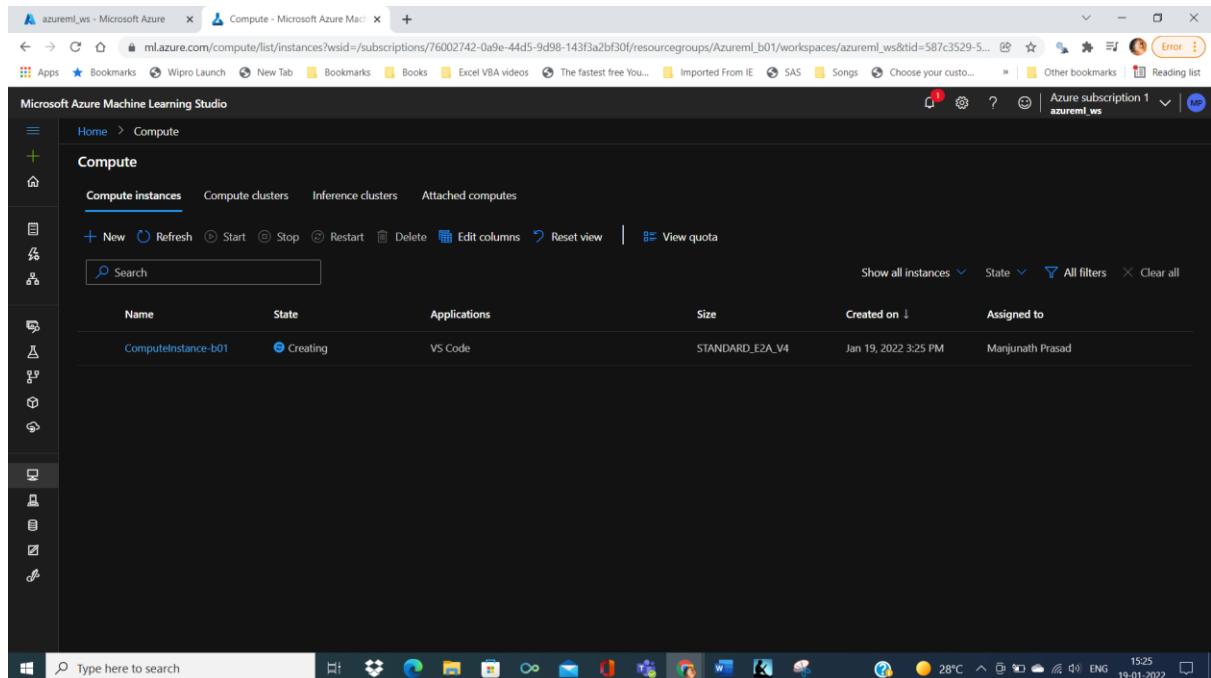
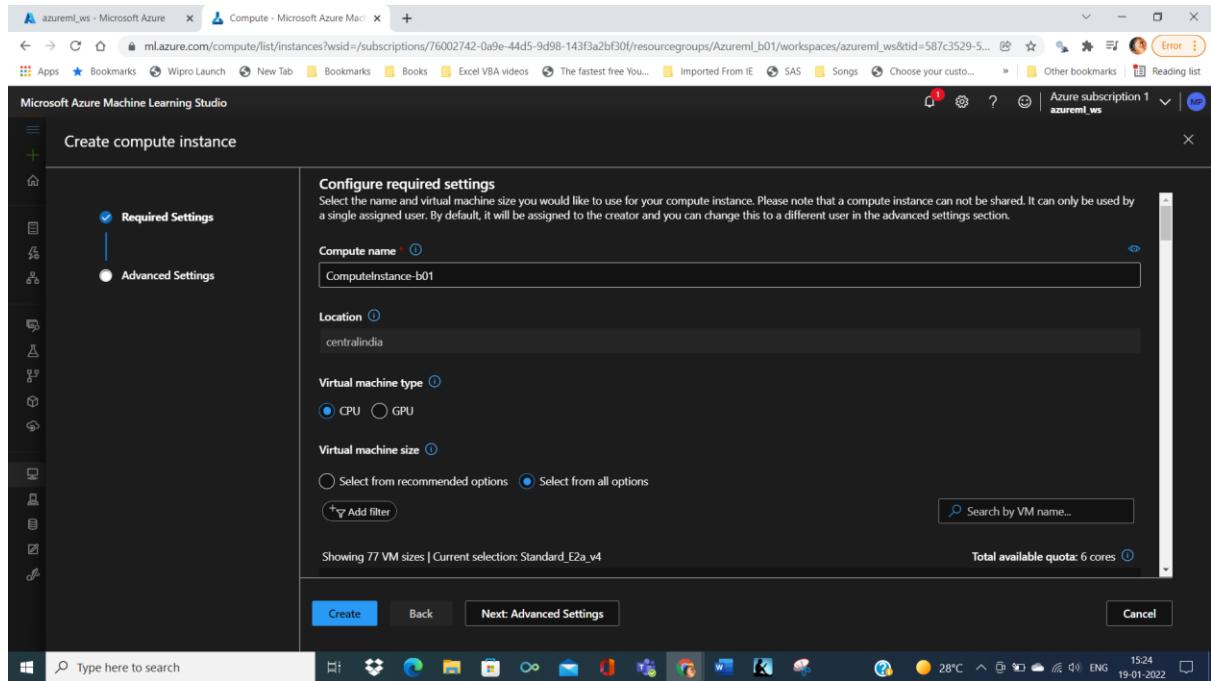
Name ↑	Category	Workload types	Available quota ?	Cost ?
Standard_DS11_v2 2 cores, 14GB RAM, 28GB storage	Memory optimized	Development on Notebooks (or other IDE) and light weight testing	24 cores	\$0.04/hr



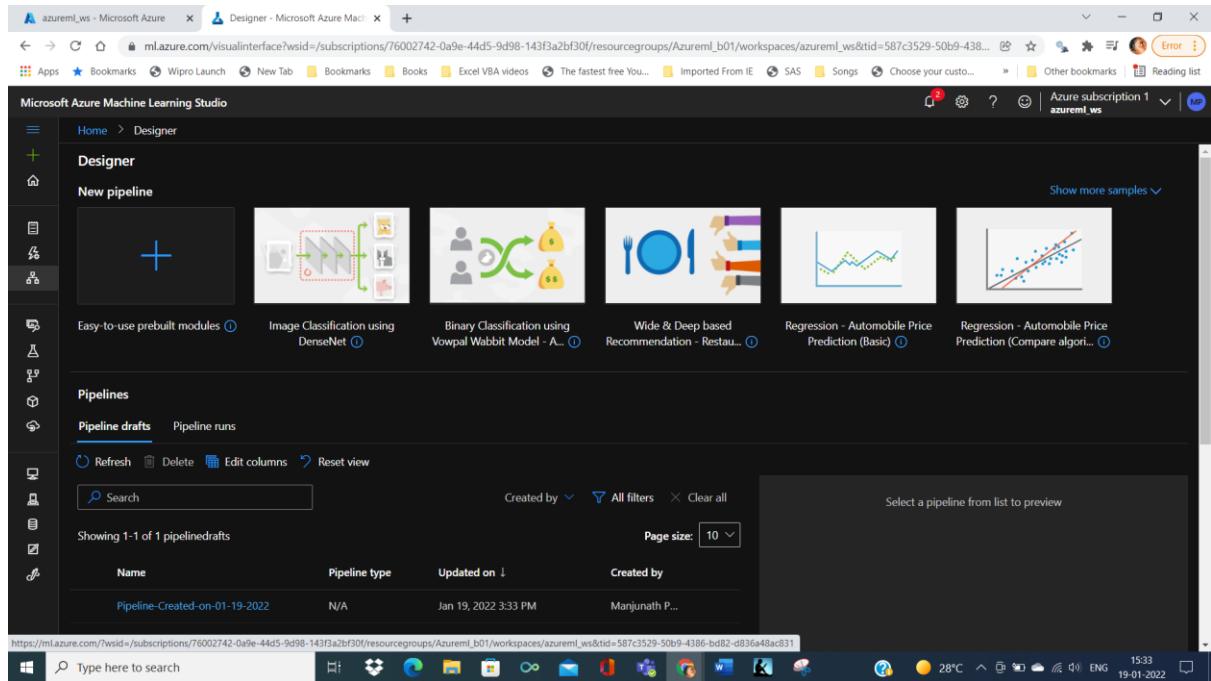
Finally Compute cluster is created



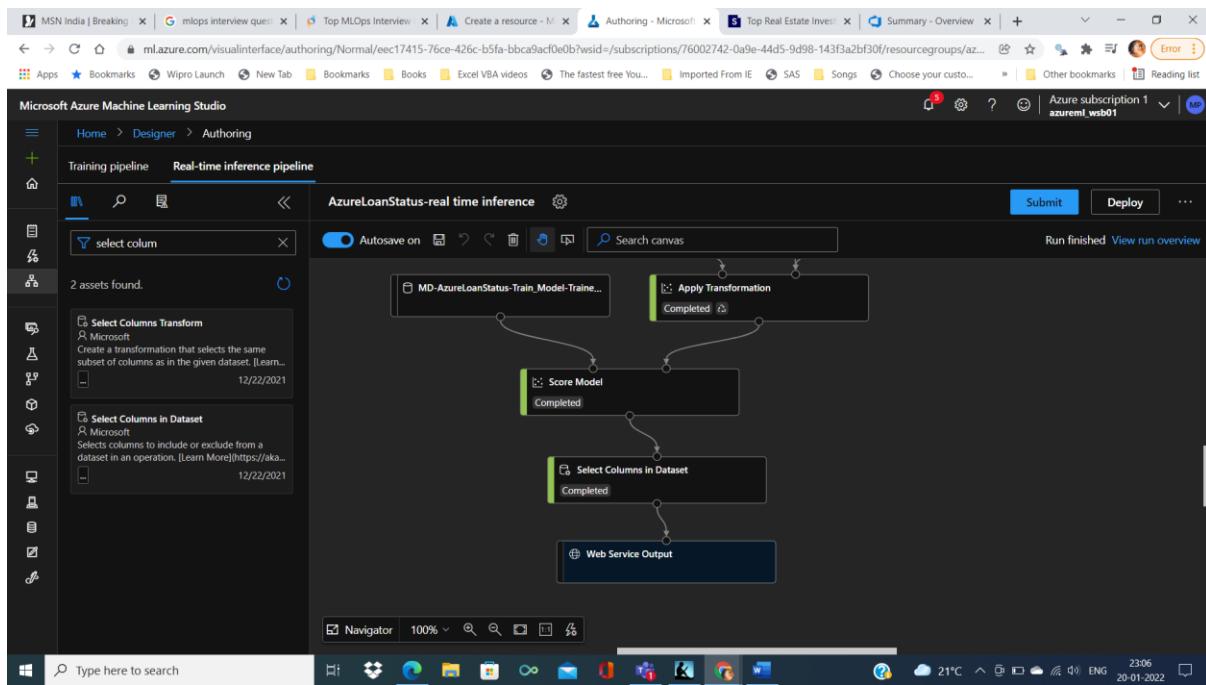
Similarly we'll create computer instance



Experiment Pipelines



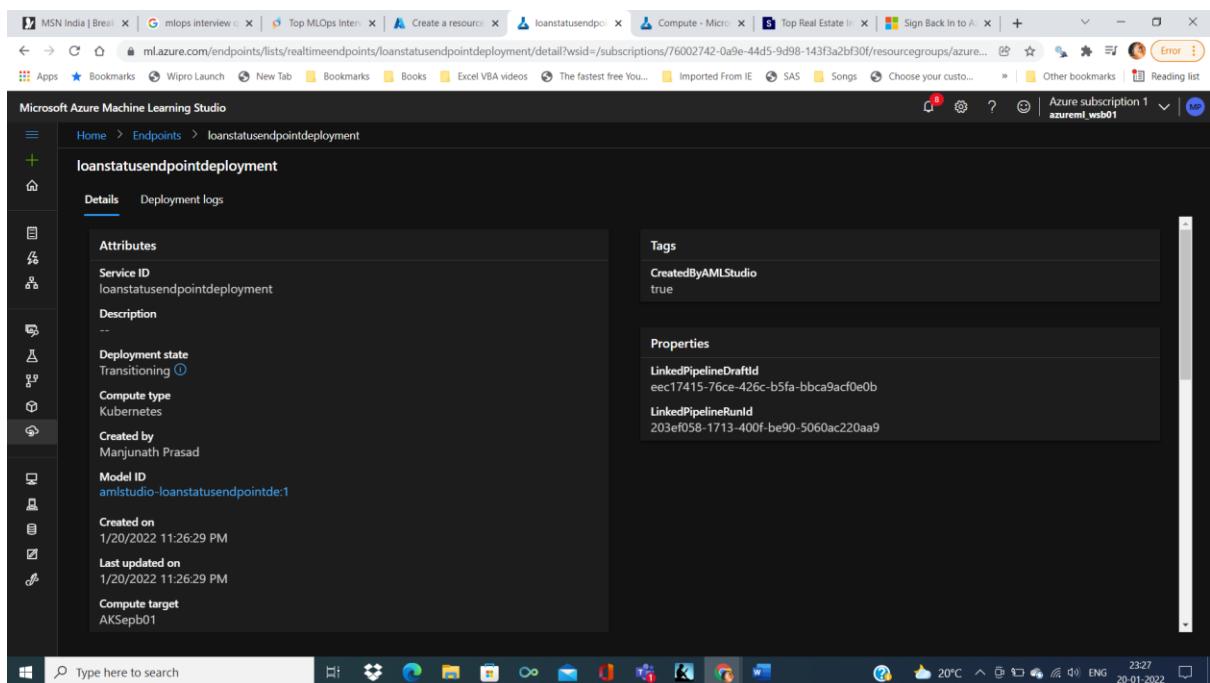
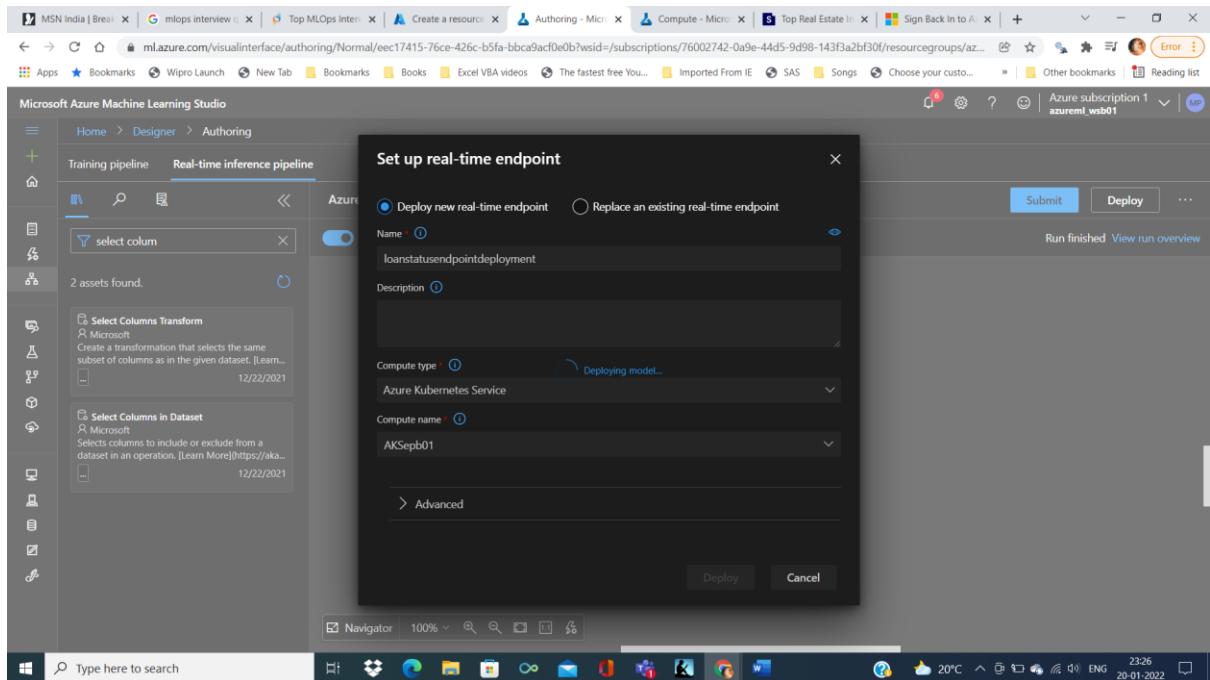
Model deployment



Need to create AKS cluster

Name	State	Type	Attached/Created	Location	Created on
AKSepb01	Succeeded	Kubernetes service	Created	centralindia	Jan 20, 2022 11:18 PM

Endpoint deployment



The screenshot shows the Microsoft Azure Machine Learning Studio interface. The left sidebar has a tree view with 'Endpoints' selected. The main content area is titled 'Endpoints' with tabs for 'Real-time endpoints' and 'Batch endpoints'. Below is a table showing one endpoint:

Name	Description	Created on	Created by	Updated on	Compute type	Compute target	Tags
loanstatusendpointdep...		Jan 20, 2022 11:26 PM	Manjunath Prasad	Jan 20, 2022 11:26 PM	Kubernetes	AKSepb01	CreatedByAMLStudio : true

At the bottom, the URL is https://ml.azure.com/endpoints?wsid=/subscriptions/76002742-0a9e-44d5-9d98-143f3a2bf30f/resourcegroups/azureml-b01/workspaces/azureml_web01&tid=587c3529-50b9-4386-bd82-d836a48ac831.

The screenshot shows the details of the 'loanstatusendpointdeployment' endpoint. The left sidebar shows 'loanstatusendpointdeployment' under 'Endpoints'. The main content area has tabs for 'Details' and 'Deployment logs', with 'Details' selected. It displays the following information:

- Attributes**: Service ID: loanstatusendpointdeployment
- Description**: Deployment state: Transitioning (Indicates the service is in the process of deployment). Learn more about endpoint states.
- Compute type**: Kubernetes
- Created by**: Manjunath Prasad
- Model ID**: amlstudio-loanstatusendpointde:1
- Created on**: 1/20/2022 11:26:29 PM
- Last updated on**: 1/20/2022 11:26:29 PM
- Compute target**: AKSepb01

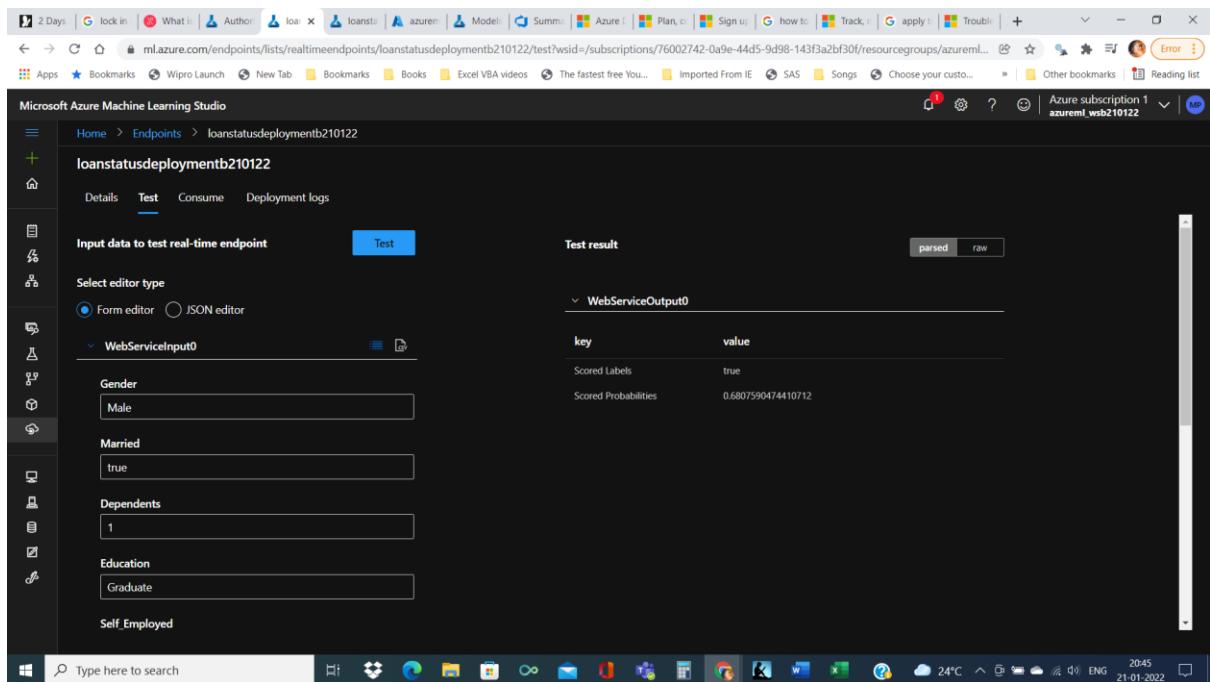
On the right, there are sections for **Tags** (CreatedByAMLStudio, true) and **Properties** (LinkedDplineDraftId: eec17415-76ce-426c-b5fa-bbca9acf0e0b, LinkedDplineRund: 203ef058-1713-400f-be90-5060ac220aa9).

Healthy of deployment

The screenshot shows the Microsoft Azure Machine Learning Studio interface. The main title is "loanstatusdeploymentb210122". Below it, there are tabs for "Details", "Test", "Consume", and "Deployment logs". The "Details" tab is selected. Under "Attributes", the "Service ID" is listed as "loanstatusdeploymentb210122". The "Deployment state" is shown as "Healthy". The "Compute type" is "Kubernetes". The "Created by" is "Manjunath Prasad". The "Model ID" is "amlstudio-loanstatusdeployment1". The "Created on" and "Last updated on" both show the date as 1/21/2022. The "Compute target" is "aksproduction". On the right side, under "Properties", there are several entries: "LinkedPipelineDraftId" (53cf3e7d-26bc-44de-9167-178e4099773f), "LinkedPipelineRunId" (4311bd63-9a06-4bb3-8ead-d866b4ec2a6f), "hasInferenceSchema" (True), and "hasHttps" (False). The status bar at the bottom indicates the date as 21-01-2022 and the time as 20:41.

Model can be test with random values

The screenshot shows the Microsoft Azure Machine Learning Studio interface, similar to the previous one but with the "Test" tab selected. The main title is "loanstatusdeploymentb210122". The "Input data to test real-time endpoint" section is visible, with a "Test" button highlighted. Below it, the "Select editor type" section shows "Form editor" selected over "JSON editor". Under "WebServiceInput0", there are several input fields: "Gender" (Male), "Married" (true), "Dependents" (1), "Education" (Graduate), and "Self_Employed" (which is currently empty). The status bar at the bottom indicates the date as 21-01-2022 and the time as 20:44.



Microsoft Azure Machine Learning Studio

Home > Endpoints > loanstatusdeploymentb210122

loanstatusdeploymentb210122

Details Test Consume Deployment logs

Input data to test real-time endpoint

Select editor type Form editor JSON editor

WebServiceInput0

Gender: Male

Married: true

Dependents: 1

Education: Graduate

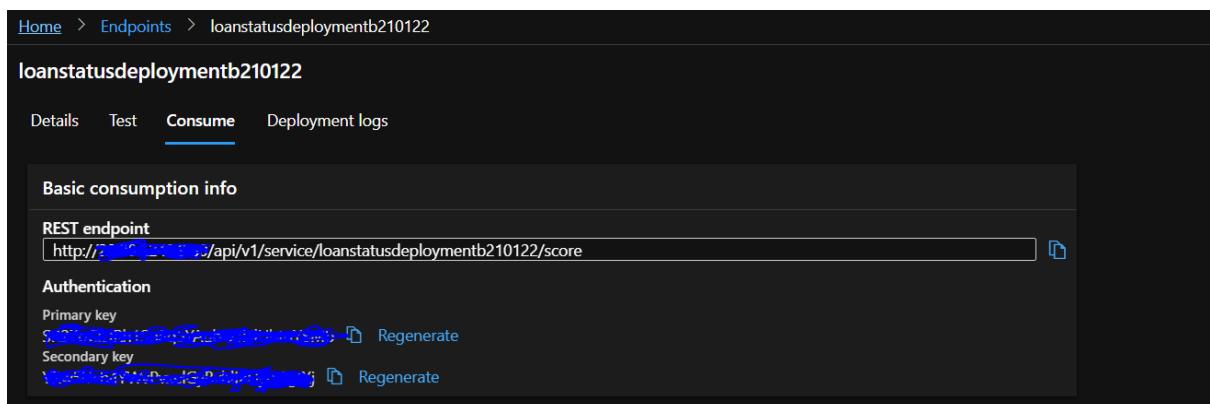
Self_Employed:

Test result

WebServiceOutput0

key	value
Scored Labels	true
Scored Probabilities	0.6807590474410712

parsed raw



Home > Endpoints > loanstatusdeploymentb210122

loanstatusdeploymentb210122

Details Test Consume Deployment logs

Basic consumption info

REST endpoint

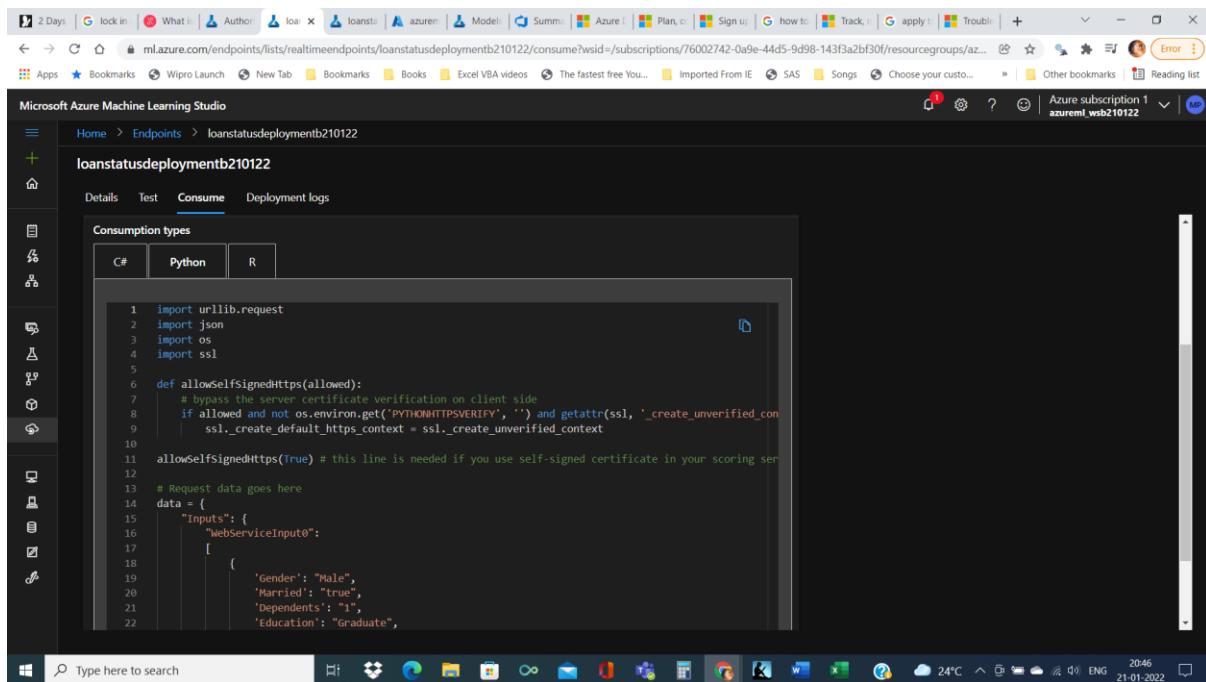
Authentication

Primary key

Secondary key

SS

It can be consumed using C# or Python or R



```
import urllib.request
import json
import os
import ssl

def allowSelfSignedHttps(allowed):
    # bypass the server certificate verification on client side
    if allowed and not os.environ.get('PYTHONHTTPSVERIFY', '') and getattr(ssl, '_create_unverified_context', None):
        ssl._create_default_https_context = ssl._create_unverified_context

allowSelfSignedHttps(True) # this line is needed if you use self-signed certificate
                           # in your scoring service.

# Request data goes here
data = {
    "Inputs": {
        "WebServiceInput0": [
            {
                'Gender': "Male",
                'Married': "true",
                'Dependents': "1",
                'Education': "Graduate",
                'Income': "High"
            }
        ]
    }
}
```

```

{
    'Gender': "Male",
    'Married': "true",
    'Dependents': "1",
    'Education': "Graduate",
    'Self_Employed': "false",
    'Property_Area': "Rural",
    'ApplicantIncome': "4583",
    'CoapplicantIncome': "1508",
    'LoanAmount': "128",
    'Loan_Amount_Term': "360",
    'Credit_History': "1",
},
],
},
"GlobalParameters": {
}
}

body = str.encode(json.dumps(data))

url = 'http://20.204.249.9:80/api/v1/service/loanstatusdeploymentb210122/score'
api_key = 'SR2***** # Replace this with the API key for the web
service
headers = {'Content-Type':'application/json', 'Authorization':('Bearer ' + api_key)}

req = urllib.request.Request(url, body, headers)

try:
    response = urllib.request.urlopen(req)

    result = response.read()
    print(result)
except urllib.error.HTTPError as error:
    print("The request failed with status code: " + str(error.code))

    # Print the headers - they include the request ID and the timestamp, which are
    # useful for debugging the failure
    print(error.info())
    print(json.loads(error.read().decode("utf8", 'ignore')))
```

In R

```
library("RCurl")
library("rjson")

# Accept SSL certificates issued by public Certificate Authorities
options(RCurlOptions = list(cainfo = system.file("CurlSSL", "cacert.pem",
package = "RCurl"), ssl.verifypeer = FALSE))

h = basicTextGatherer()
hdr = basicHeaderGatherer()

# Request data goes here
req = list(
  Inputs = list(
    "WebServiceInput0" = list(
      list(
        'Gender' = "Male",
        'Married' = "true",
        'Dependents' = "1",
        'Education' = "Graduate",
        'Self_Employed' = "false",
        'Property_Area' = "Rural",
        'ApplicantIncome' = "4583",
        'CoapplicantIncome' = "1508",
        'LoanAmount' = "128",
        'Loan_Amount_Term' = "360",
        'Credit_History' = "1"
      )
    )
  ),
  GlobalParameters = setNames(fromJSON('{}'), character(0))
)

body = enc2utf8(toJSON(req))
api_key = "SR27*****" # Replace this with the API key for the web
service
authz_hdr = paste('Bearer', api_key, sep=' ')

h$reset()
curlPerform(
  url =
  "http://20.204.249.9:80/api/v1/service/loanstatusdeploymentb210122/score",
  httpheader=c('Content-Type' = "application/json", 'Authorization' = authz_hdr),
  postfields=body,
```

```

writefunction = h$update,
headerfunction = hdr$update,
verbose = TRUE
)

headers = hdr$value()
httpStatus = headers["status"]
if (httpStatus >= 400)
{
  print(paste("The request failed with status code:", httpStatus, sep=" "))

  # Print the headers - they include the request ID and the timestamp, which are
  # useful for debugging the failure
  print(headers)
}

print("Result:")
result = h$value()
print(fromJSON(result))

```

Deployment logs

The screenshot shows the deployment logs for the endpoint 'loanstatusdeploymentb210122'. The logs are displayed in a table format with columns for log number, timestamp, source, message, and additional details. The logs capture the execution of a pipeline, starting with a GET request and progressing through various stages of data processing, including schema validation and transformation steps.

Log Number	Timestamp	Source	Message	Details
317	2022-01-21 15:15:46,924	studio.azureml.designer.serving.dagengine.request_handler	INFO	Run: is_classic = False, with_details = False, verbose = True
318	2022-01-21 15:15:46,923	root	INFO	Scoring Timer is set to 60.0 seconds
319	Handling http request - Start:			
320	2022-01-21 15:15:46,924	studio.azureml.core	INFO	Pre-processing - Start:
321	2022-01-21 15:15:46,924	studio.core	INFO	Pre-processing - End with 0.0001s elapsed.
322	2022-01-21 15:15:46,924	studio.core	INFO	Processing - Start:
323	2022-01-21 15:15:46,924	studio.core	INFO	0 and empty string will be converted into False
324	2022-01-21 15:15:46,952	studio.common	WARNING	0 and empty string will be converted into False
325	2022-01-21 15:15:46,963	studio.common	WARNING	Executing node 1: Apply Transformation - Start:
326	2022-01-21 15:15:46,993	studio.core	INFO	Load schema successfully.
327	2022-01-21 15:15:47,003	studio.common	DEBUG	Return without parsing
328	2022-01-21 15:15:47,003	studio.modulehost	INFO	Return without parsing
329	2022-01-21 15:15:47,003	studio.modulehost	INFO	ApplyTransformationModule.run - Start:
330	2022-01-21 15:15:47,003	studio.core	INFO	Kwargs:
331	2022-01-21 15:15:47,003	studio.core	DEBUG	transform = <azureml.studio.modules.datatransform.clean_missing_data.clean_missing_transform.
332	2022-01-21 15:15:47,003	studio.core	DEBUG	CleanMissingValueTransform object at 0x7f115d218748>
333	2022-01-21 15:15:47,003	studio.core	DEBUG	data = <azureml.studio.common.datatable.DataTable object at 0x7f115ca6c5f8>
334	2022-01-21 15:15:47,003	studio.core	DEBUG	validated_args:
335	2022-01-21 15:15:47,004	studio.core	DEBUG	transform = <azureml.studio.modules.datatransform.clean_missing_data.clean_missing_transform.
336	2022-01-21 15:15:47,004	studio.core	DEBUG	CleanMissingValueTransform object at 0x7f115ca6c5f8>
337	2022-01-21 15:15:47,004	studio.module	INFO	Get column indexes with wanted ratio
338	2022-01-21 15:15:47,004	studio.core	INFO	CleanMissingValueTransform.get_column_indexes_with_wanted_ratio - Start:
339	2022-01-21 15:15:47,004	studio.core	INFO	CleanMissingValueTransform.get_column_indexes_with_wanted_ratio - End with 0.0003s elapsed.
340	2022-01-21 15:15:47,004	studio.module	INFO	Replace with value
341	2022-01-21 15:15:47,004	studio.core	INFO	CleanMissingValueTransform.replace_missing_values - Start:

