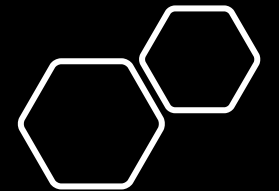


Demo Overview

What is Azure Automated ML?

Azure Automated Machine Learning (AutoML) focuses on making the entire process of machine learning easy, with the goal of bringing efficiency to data scientists as well as enabling non-data scientists to build models



Create an ADLS-Gen2 resource and initialize it

1

The screenshot shows the Microsoft Azure portal interface for a new storage account named 'belldatalake'. The left sidebar contains navigation options like 'Home', 'Dashboard', 'All services', and 'FAVORITES'. The main content area displays the 'Overview' tab for the storage account. Key details include: Resource group (change): Demo-automi-datalake, Status: Primary: Available, Location: South Central US, Subscription (change): srkthar's internal subscription, and Subscription ID: 33124dac-d702-4d7d-851b-0e1159f01295. Below these details are three cards for 'Containers', 'File shares', and 'Tables', each with a 'Learn more' link. At the bottom, there are sections for 'Tools and SDKs' (listing Storage Explorer, PowerShell, Azure CLI, .NET, Java, Python, and Node.js) and 'Monitoring' (showing data for the last 1 day and total egress/ingress).

2

The screenshot shows the 'Containers' tab for the 'belldatalake' storage account. It displays a table with columns for Name, Last modified, Public access level, and Lease state. A single container named 'bell' is listed, created on 9/10/2020 at 7:46:25 AM, with a Private public access level and an Available lease state.

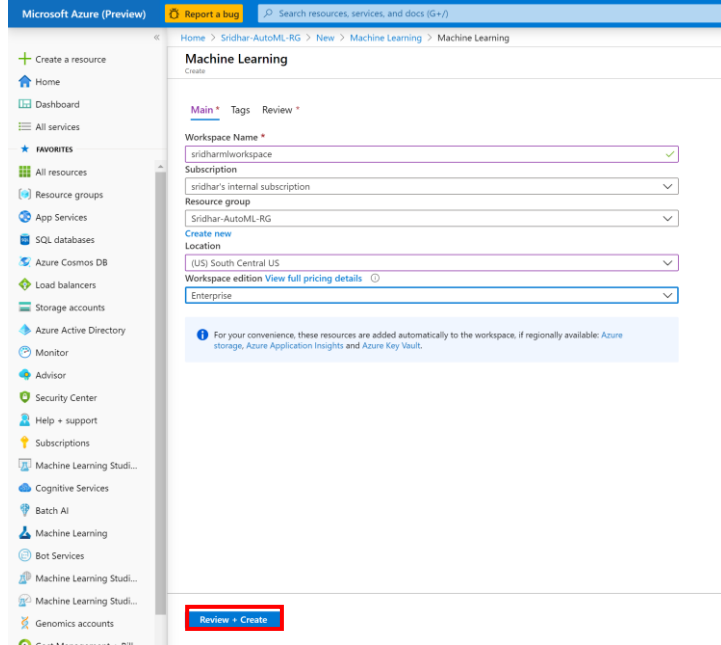
3

The screenshot shows the 'Upload' button and 'Authentication method' for the 'bell' container. The 'Authentication method' is set to 'Access key (Switch to Azure AD User Account)'. Below this, there is a table for 'Upload blobs by profile (user-verified)' with columns for Name, Modified, Access tier, Blob type, Size, and Lease state. A single blob named 'dataset1' is listed.

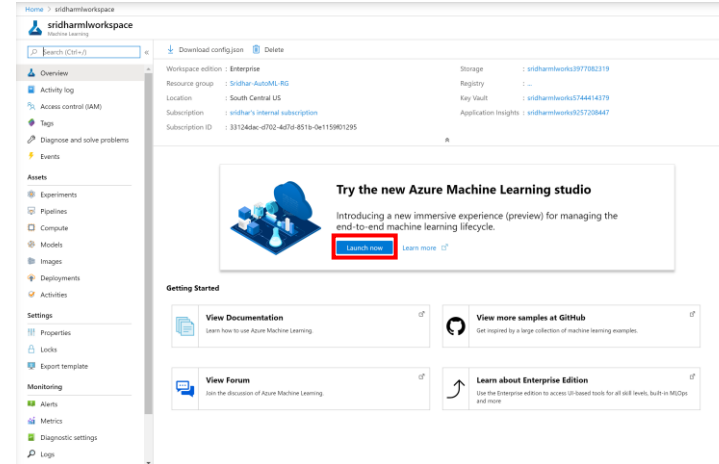
4

The screenshot shows the 'Upload blob' dialog box with a file selection window. The file selection window shows a list of files in the 'C:\Users\srkthar\Documents' directory, including 'CHCData.txt', 'SampleProcessData.txt', and 'SampleProcessDataDemo.txt'. The 'Upload blob' dialog box has fields for 'File name' and 'Upload' button.

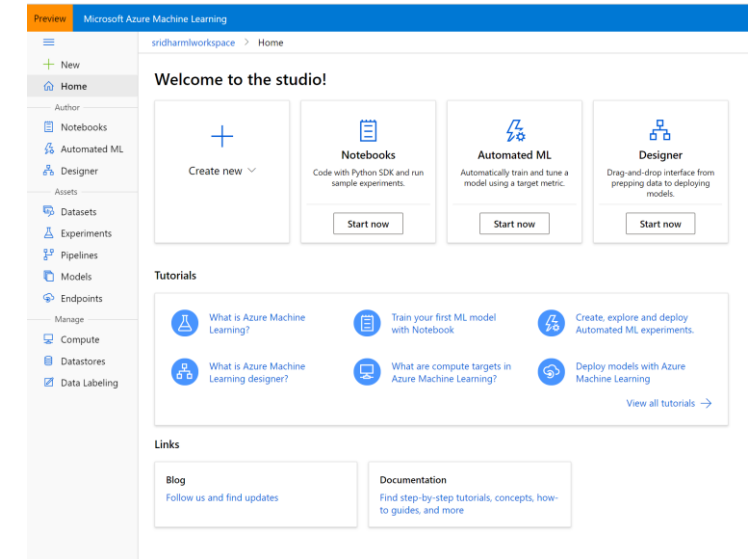
1



2



3



Create a Machine Learning workspace

1

Author
Notebooks
Automated ML
Designer
Assets
Datasets
Experiments
Models
Pipelines
Endpoints
Manage
Compute
Datastores
Data Labeling

Registered datasets

Dataset model

+ Create dataset

Refresh

Basic info

Datatore selection

Settings and preview

Schema

Confirm details

Select a datatore *

Previously created datatore

Refresh

Create new datatore

Customers should not include personal data or other sensitive information in fields marked with * because the content in these fields may be logged and shared across Microsoft systems to facilitate operations and troubleshooting. Learn more

Datatore name *

my_data_store

Datatore type *

Azure Blob Storage

Account selection method

From Azure subscription

Enter manually

Subscription ID *

vidhar's internal subscription (33124dec-4702-4d74-851b-de1159)

Storage account *

vidhardataakegen2 (MyDataLakeGen2-RG)

Blob container *

bell

Authentication type *

2

Path selection

Selected path: /

Include files in subfolders

Filter (case-sensitive and prefix-only)...

Name	Created on	Modified on
dataset1/		

< Prev

Next >

3

Selected path: dataset1/SampleProcess Data.xlsx

Include files in subfolders

Filter (case-sensitive and prefix-only)...

Name	Created on	Modified on
CNCData.xlsx	Mar 12, 2020 12:10 PM	Mar 12, 2020 12:10 PM
SampleProcess Data.xlsx	Mar 12, 2020 12:10 PM	Mar 12, 2020 12:10 PM
SampleProcessDataAlarms.xlsx	Mar 12, 2020 12:10 PM	Mar 12, 2020 12:10 PM

< Prev

Next >

Save

Cancel

4

Confirm details

Basic info

Datatore selection

File settings

Name

my_data_store

Dataset version

1

Dataset type

Tabular

File format

Excel

Column headers

All files have same headers

Skip rows

None

Profile this dataset after creation

There are no available computes to queue profile generation

Back

Create

5

File format

Excel

Column headers

All files have same headers

Skip rows

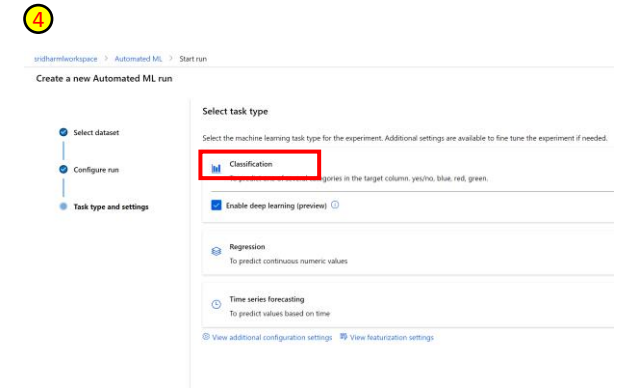
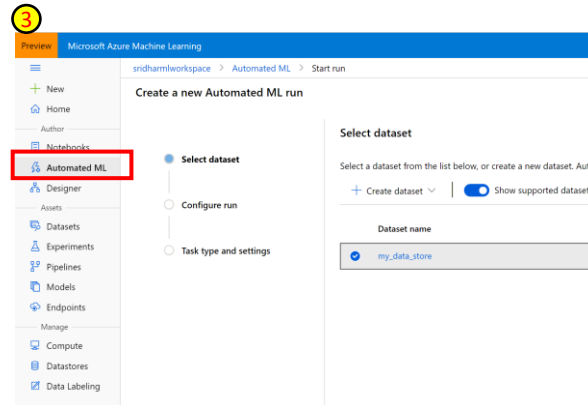
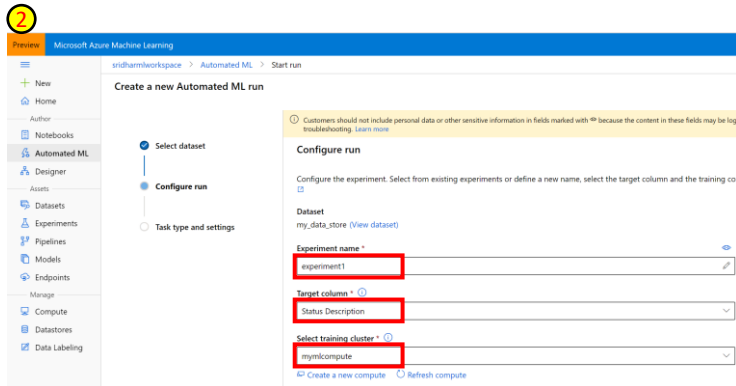
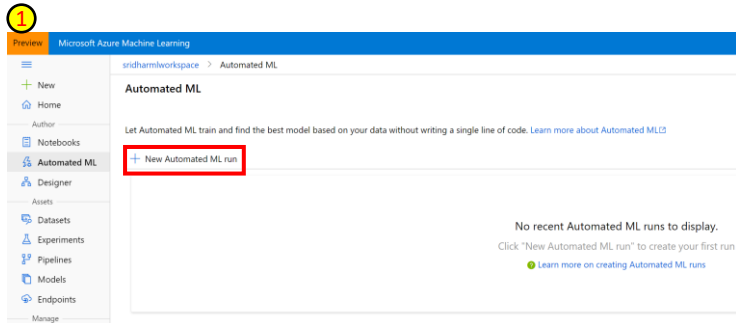
None

Date	Timestamp	Load Code	Carbon OUTPUT	Carbon PV	Carbon Setpoint	Nitrogen Setpoint	Nitrogen PV	Methanol Setp
202...	1899-12-31...	12.00	100.00	0.00	1.20	45.00	44.96	0.05
202...	1899-12-31...	12.00	91.22	0.00	1.20	45.00	45.02	0.05
202...	1899-12-31...	12.00	42.31	0.00	1.20	45.00	45.00	0.27
202...	1899-12-31...	12.00	0.00	1.27	1.20	45.00	45.06	0.27
202...	1899-12-31...	12.00	0.26	1.30	1.20	45.00	43.50	0.27
202...	1899-12-31...	12.00	2.47	1.20	1.20	45.00	45.00	0.27
202...	1899-12-31...	12.00	2.39	1.20	1.20	45.00	44.99	0.27

6

<div></div>	Column4	Not applicable to selecte...	Decimal	[object Object], 10
<div></div>	Column5	Not applicable to selecte...	Decimal	[object Object], 1.0
<div></div>	Column6	Not applicable to selecte...	Decimal	[object Object], 1.2
<div></div>	Column7	Not applicable to selecte...	Decimal	[object Object], 45.
<div></div>	Column8	Not applicable to selecte...	Decimal	[object Object], 44.
<div></div>	Column9	Not applicable to selecte...	Decimal	[object Object], 0.0
<div></div>	Column10	Not applicable to selecte...	Decimal	[object Object], -0.
<div></div>	Column11	Not applicable to selecte...	Decimal	[object Object], 3.1
<div></div>	Column12	Not applicable to selecte...	Decimal	[object Object], -0.
<div></div>	Column13	Not applicable to selecte...	Decimal	[object Object], 18

Create a Dataset



Create an Auto ML run

1

sridhamlworkspace > Automated ML > Run Detail

Run 1 Completed

[Refresh](#) [Cancel](#)

Details Data guardrails **Models** Logs Outputs

Algorithm name	Accuracy ↓
MaxAbsScaler, XGBoostClassifier	0.9947289156626506
MaxAbsScaler, LightGBM	0.9866967871485943
MinMaxScaler, RandomForest	0.9583333333333334
StandardScalerWrapper, ExtremeRandomTrees	0.9535642570281124
StandardScalerWrapper, SGD	0.9515562248995983
MinMaxScaler, SGD	0.947289156626506
RobustScaler, LogisticRegression	0.9455321285140562
StandardScalerWrapper, SGD	0.9440261044176707
SparseNormalizer, LogisticRegression	0.9425200803212851
SparseNormalizer, LogisticRegression	0.9397590361445783

2

sridhamlworkspace > Automated ML > Run Detail

Run 1 Completed

[Refresh](#) [Cancel](#)

Details Data guardrails Models Logs Outputs

Model summary

Algorithm name
MaxAbsScaler, XGBoostClassifier

Accuracy
0.9947289156626506

Registered models
[AutoMLb041092db1:1](#)

Deploy status
[experiment1](#) Running

[Deploy best model](#) [View model details](#) [Download best model](#)

3

Deploy a model

Name *

Description

Compute type *

Models: AutoMLb041092db1

Enable authentication
☒

This model supports [no-code deployment](#). You may **optionally** override the default environment and driver file.

☐ Use custom deployment assets

[Advanced](#)

4

sridhamlworkspace > Endpoints > experiment1

experiment1

Details Consume

Deployment state
Healthy

Compute type
ACI

Service ID
experiment1

Tags

Created on
3/13/2020 1:19:06 PM

Last updated on
3/13/2020 1:19:06 PM

Compute target
N/A

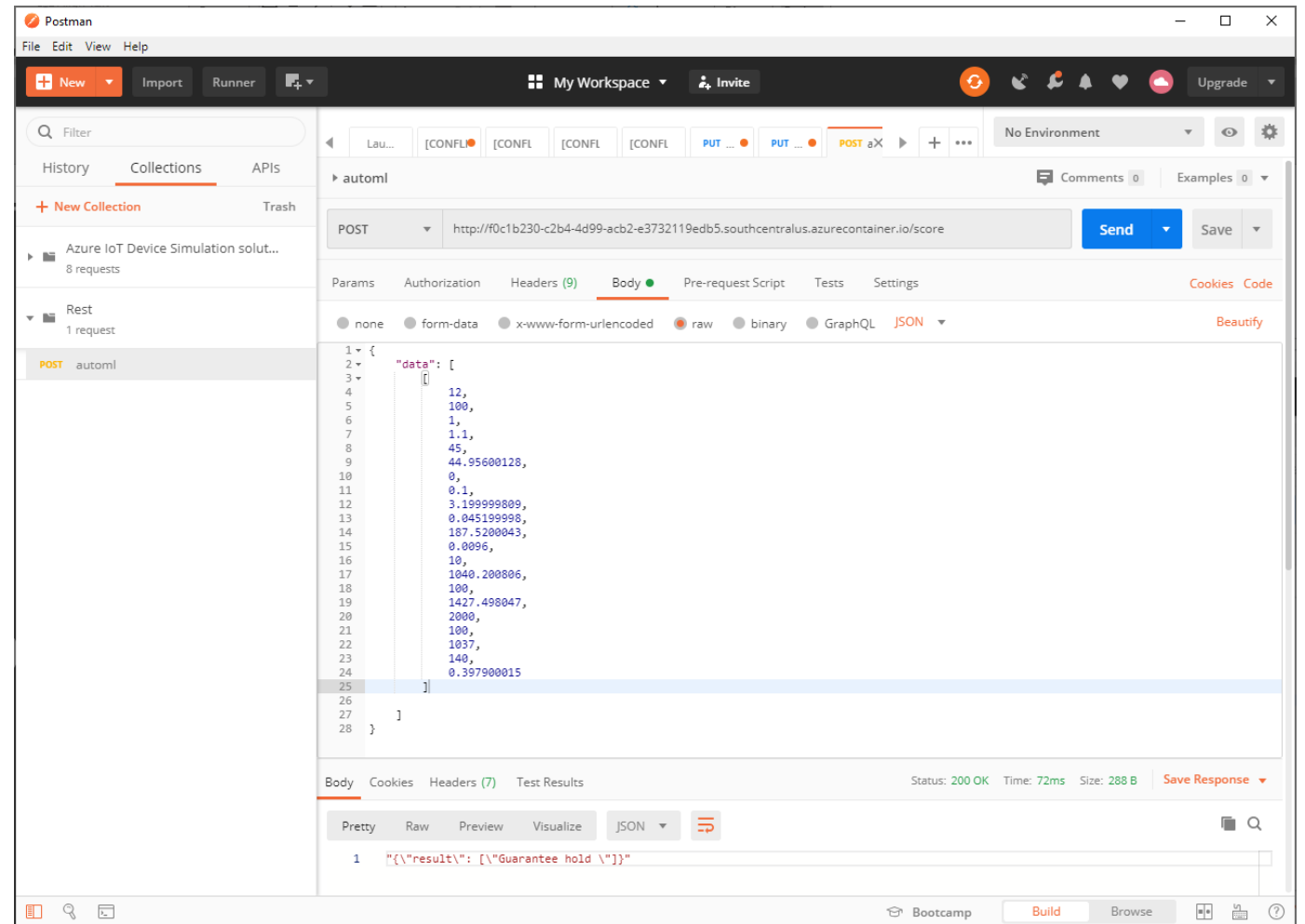
REST endpoint
<http://f0c1b230-c2b4-4d99-acb2-e3732119edb5.southcentralus.azurecontainer.io/score>

Key-based authentication enabled
false

Token-based authentication enabled
false

Deploy the best model

Score



Thank You