

# Azure ML Workbench

Monday, October 22, 2018 10:17 AM

<https://azure.microsoft.com/en-in/services/machine-learning-service/>

<https://portal.azure.com/>

<https://github.com/Azure/DevOps-For-AI-Apps/blob/master/Tutorial.md>

<https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/ci-cd-flask>

<https://docs.microsoft.com/en-us/azure/machine-learning/service/quickstart-get-started>

<https://docs.microsoft.com/en-us/azure/machine-learning/desktop-workbench/tutorial-classifying-iris-part-3>

<https://github.com/Azure/DevOps-For-AI-Apps/blob/master/Tutorial.md> ==imp

<https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/machine-learning/desktop-workbench/deployment-setup-configuration.md>

BLOB storage :-

<https://stmfgfohstprq51278013.blob.core.windows.net/blobstorage>

dF95EH99IOhV0q3FeHiNfPk9TyxTkiSYRhvvEg1zWulqb0xijY5hW+6WckjRjQJ98fkonY9Nd2FZUs+1z3noHQ==

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-from-blobs>

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-quickstart-blobs-python>

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<https://docs.microsoft.com/en-us/azure/machine-learning/data-science-virtual-machine/dsvm-ml-data-science-tools>

<https://docs.microsoft.com/en-us/azure/machine-learning/desktop-workbench/reference-python-package-overview>

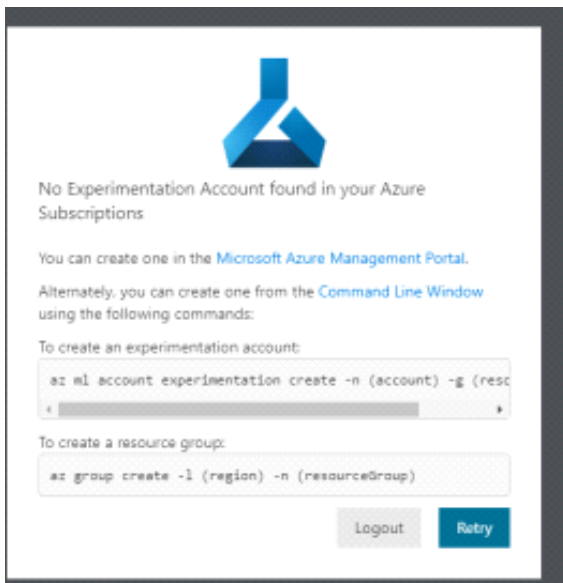
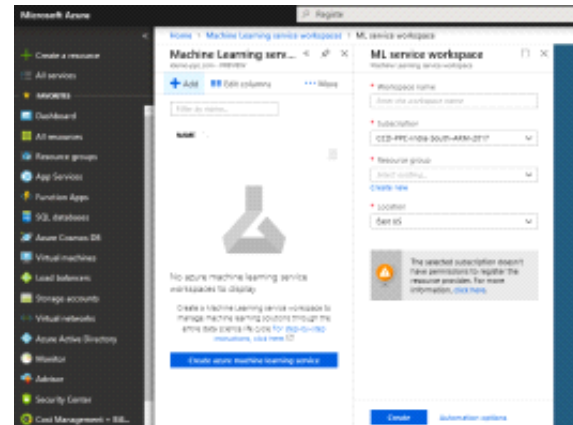
<https://docs.microsoft.com/en-us/azure/hdinsight/r-server/r-server-overview>

az ml env show -v

/modeldata/<subscription\_id>/<resource\_group\_name>/<model\_management\_account\_name>/<webservice\_name>/<model\_id>/<model\_name>/<model\_version>/<identifier>/<year>/<month>/<day>/data.csv

dF95EH99IOhV0q3FeHiNfPk9TyxTkiSYRhvvEg1zWulqb0xijY5hW+6WckjRjQJ98fkonY9Nd2FZUs+1z3noHQ==

<https://stmfgfohstprq51278013.blob.core.windows.net/blobstorage>



[10/22/2018 9:48 AM] Parag Gurjar:  
demo-ppc.com  
RG-MGFOHSTP-RQ51278013

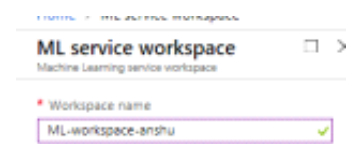
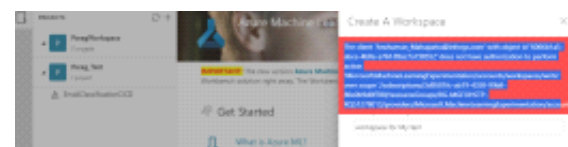
[10/22/2018 9:50 AM] Parag Gurjar:  
Model Registration with Azure BLOB  
Storage

Not able to register due to Az  
login issue.

Anshuman

Storage Account -> botmgfohstp38e6a

[10/22/2018 9:51 AM] Parag Gurjar:



Model Registration with Azure BLOB Storage  
NOT able to register due to AZ login issue.

Anshuman

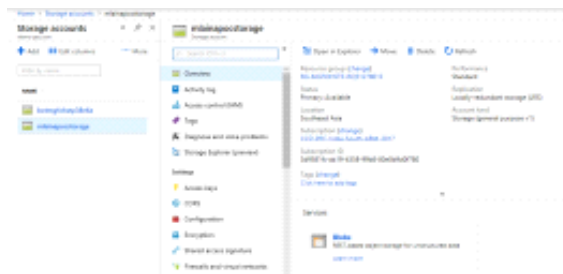
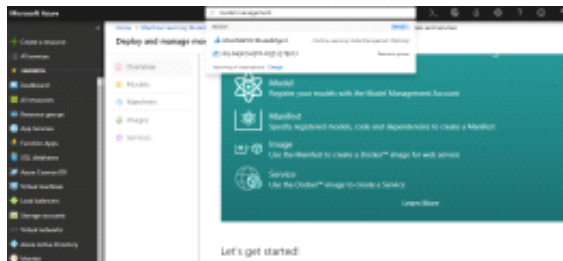
Storage Account -> **botmgfohstp38e6a**

[10/22/2018 9:51 AM] Parag Gurjar:

<https://github.com/Azure/DevOps-For-AI-Apps/blob/master/Tutorial.md>

<https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/ci-cd-flask>

## Machine learning model management



## Machine Learning Compute

Configure compute for deploying and managing models

In order to deploy and manage models in production, you need to create a machine learning compute environment.

First, set up a virtual environment - **you only need to do this once for your subscription**:

1. In the Azure portal, click the Cloud Shell button on the menu in the upper-right of the Azure portal.



2. In Cloud Shell, create a virtual environment:

```
virtualenv -p /usr/bin/python3 <my-project-path>
```

3. Add the following lines to ~/.bashrc:

```
export PATH=<my-project-path>/bin:$PATH
export PYTHONPATH=<my-project-path>/bin
```

4. Source .bashrc:

```
source ~/.bashrc
```

5. Install Azure CLI in the virtual environment:

```
<my-project-path>/bin/pip install azure-cli
```

6. Install Azure ML CLI also:

```
<my-project-path>/bin/pip install azure-cli-ml
```

After you have set up the virtual environment once, use the following steps every time you need to set up and configure a compute environment for deploying and managing models:

```
from azure.storage.blob import BlobBlobService
from azure.storage.blob.models import PublicAccess
import glob
import os
ACCOUNT_NAME = "<your-blob-storage-account-name>"
ACCOUNT_KEY = "<account-key>"
CONTAINER_NAME = "<container-name>"
blob_service = BlobBlobService(account_name=ACCOUNT_NAME, account_key=ACCOUNT_KEY)
## Create a new container if necessary, or use an existing one
blob_service.create_container(CONTAINER_NAME, fail_on_exist=False, public_access=PublicAccess.Container)
# df is a pandas DataFrame
df.to_csv('mydata.csv',
```

ML service workspace

Machine Learning service workspace

Workspace name

ML-workspace-anshu

Subscription

CCD-PPC-India-South-ARM-2017

Resource group

RG-MGFOHSTP-RQ51278013

Create new

You cannot perform this action without all of the following permissions:

(Microsoft.MachineLearningServices/workspaces/)

Location

East US

The selected subscription doesn't have permissions to register the resource provider. For more information, click here.

Create Automation options

```
sep='\t', index=False) # Export the
mydata.csv file to Blob storage. for name
in glob.glob('mydata.csv'):
blob_service.create_blob_from_path(CONTAINER_NAME, 'single_file.csv', name)
```

From <<https://docs.microsoft.com/it-it/azure/machine-learning/desktop-workbench/how-to-read-write-files>>