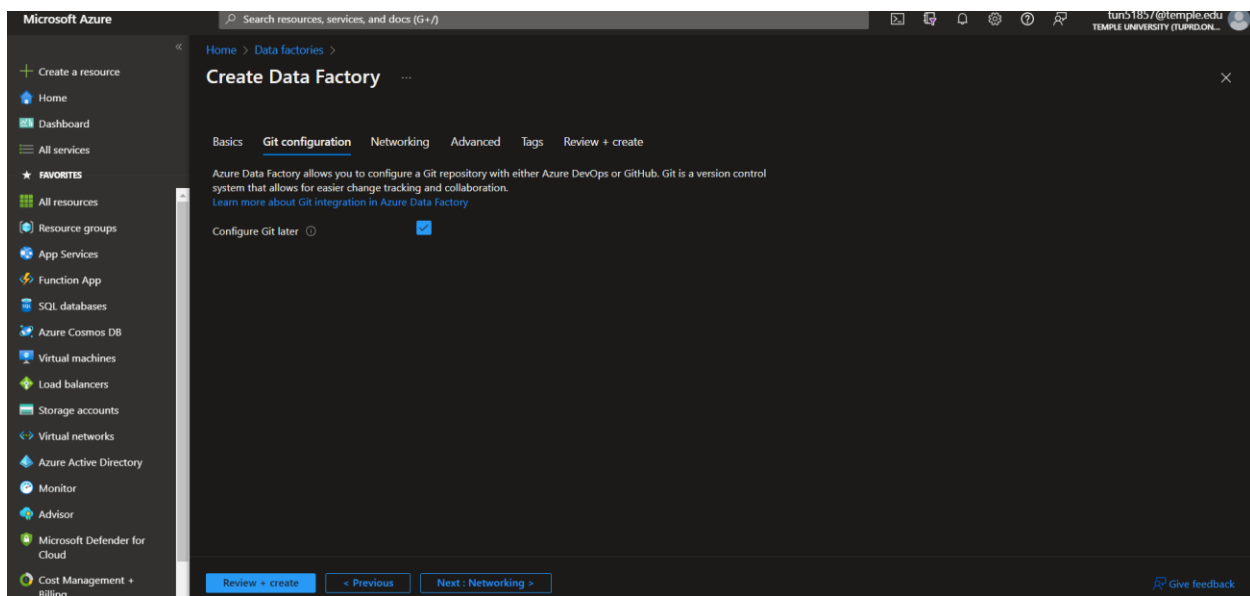
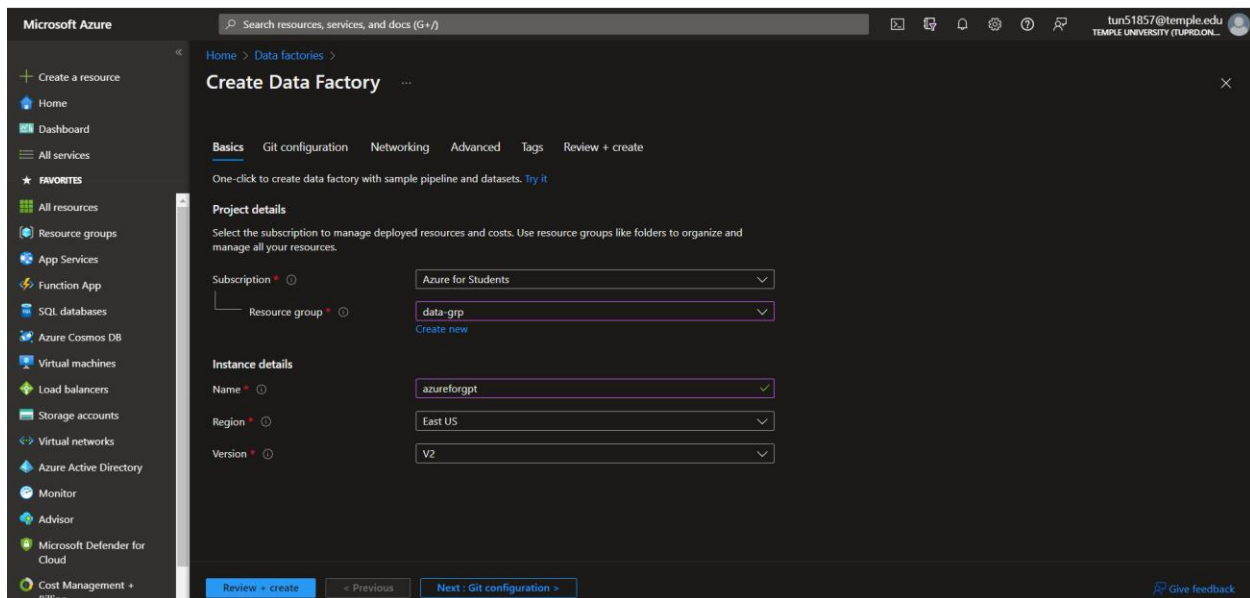


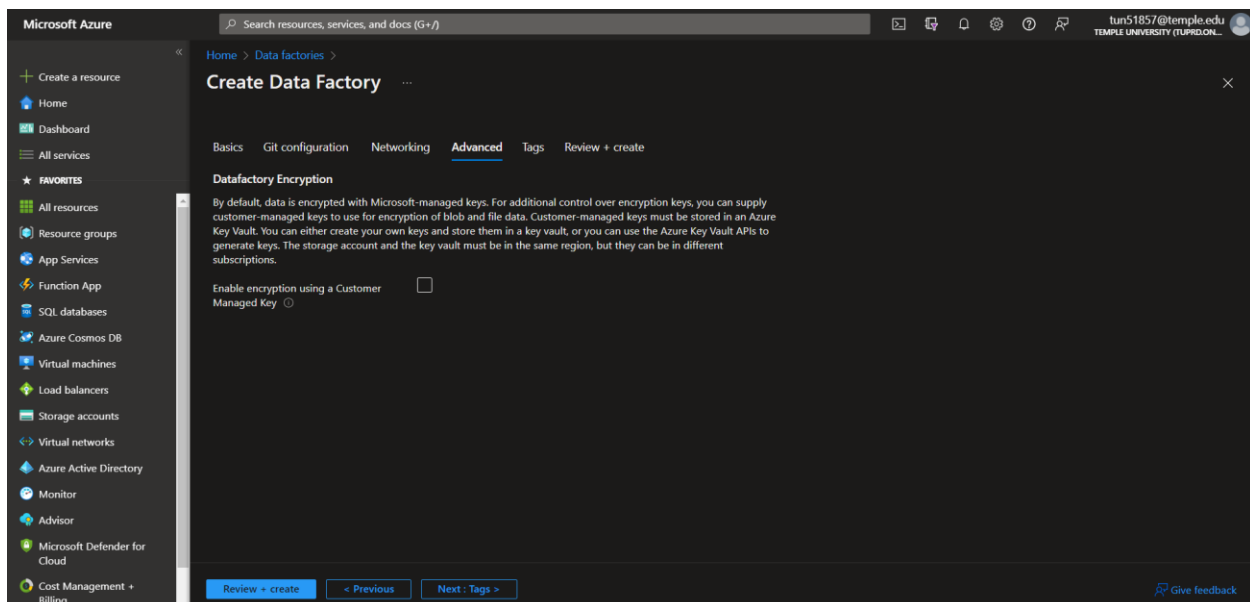
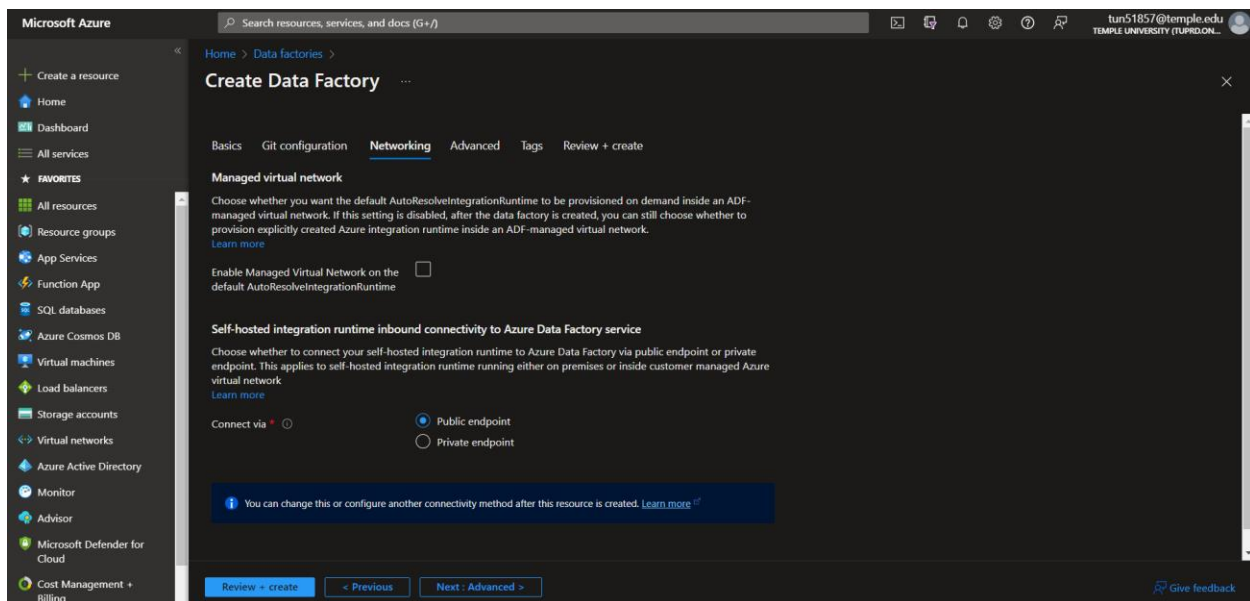
Guidelines to deploy App.py in Microsoft Azure

To call the Python script from within the Azure Data Factory pipeline, in this document I'll walk you through the process step-by-step.

- Create Azure Data Factory account
- Create the Azure Batch Account and Azure Pool
- Upload the python script in the Azure blob storage.
- Add the custom activity in the Azure Data factory Pipeline and configure to use the Azure batch pool and run the python script.

Create the Azure Data Factory account:





You can add tags here which is optional if you want to skip you can simply click on next:

Microsoft Azure

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

Home > Data factories >

Create Data Factory

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

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

| Name | Value | Resource |
|------|-------|-------------------|
| | : | Data factory (V2) |

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

Microsoft Azure

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

Home > Data factories >

Create Data Factory

Validation Passed

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

TERMS

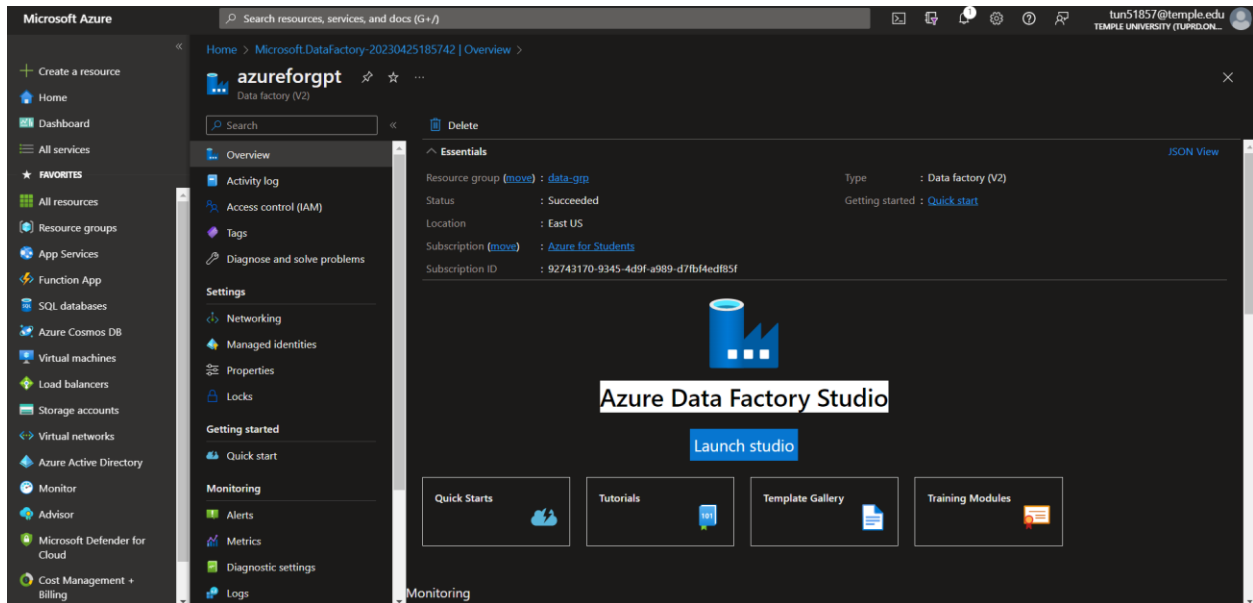
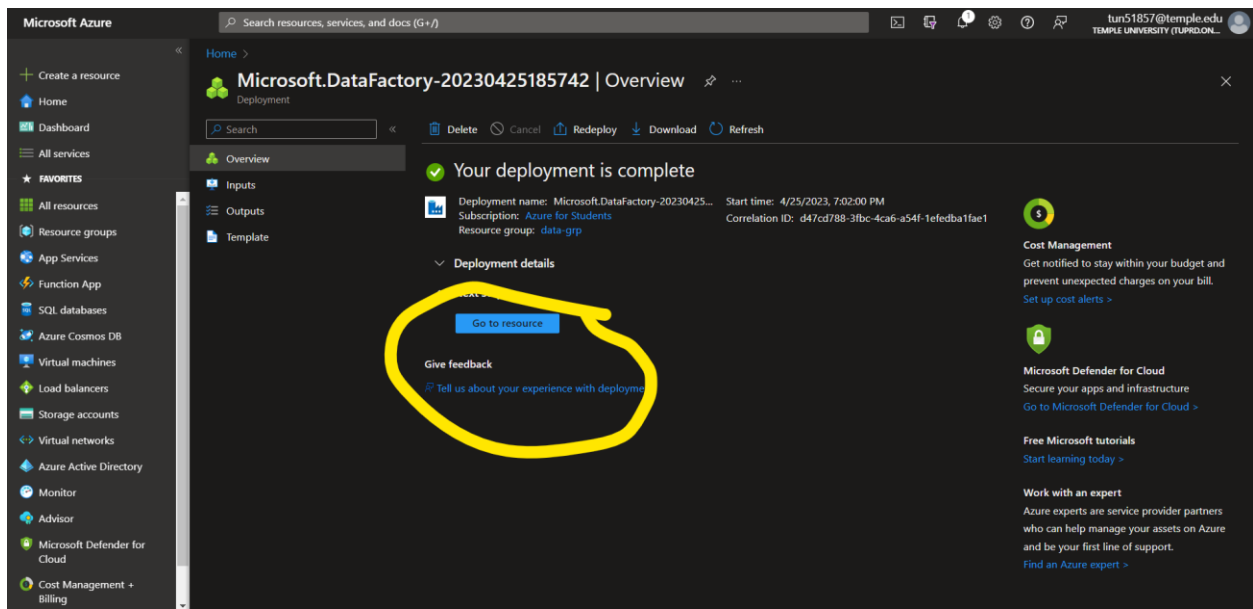
By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (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. See the [Azure Marketplace Terms](#) for additional details.

Basics

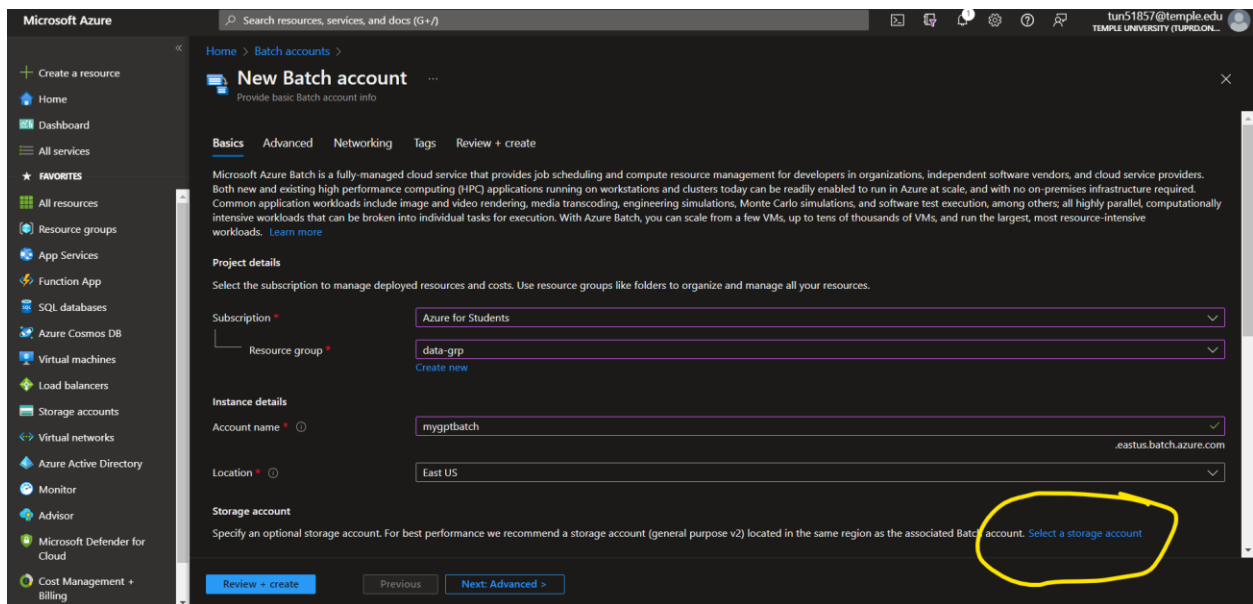
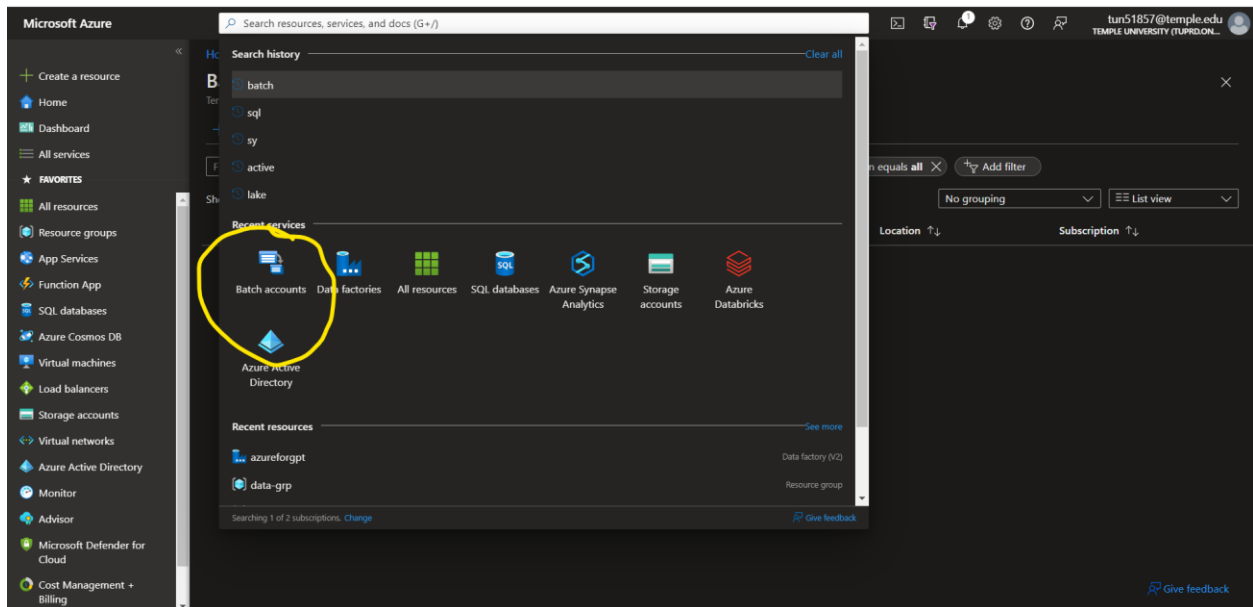
| | |
|----------------|--------------------|
| Subscription | Azure for Students |
| Resource group | data-grp |
| Name | azureforgpt |
| Region | East US |
| Version | V2 |

Networking

[Create](#) [< Previous](#) [Next](#) [Give feedback](#) [Download a template for automation](#)



Create the Azure Batch Account & create the Azure Pool:



Microsoft Azure

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

Home > Batch accounts > New Batch account > Choose storage account >

Create storage account

Name ^{*}
mytuapp ✓
...core.windows.net

Account kind ⓘ
StorageV2 (general purpose v2) ✓

Performance ⓘ
☒ Standard ☐ Premium

Replication ⓘ
Locally-redundant storage (LRS) ✓

OK

Microsoft Azure

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

Home > Batch accounts >

New Batch account

Provide basic Batch account info

Basics Advanced Networking Tags Review + create

Identity type ⓘ
☒ None ☐ System assigned ☐ User-assigned

Pool allocation mode ⓘ
☒ Batch service ☐ User subscription

Authentication mode
3 selected ✓

Review + create Previous Next: Networking >

Microsoft Azure

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

Home > Batch accounts >

New Batch account

Provide basic Batch account info

Basic

Advanced

Networking

Tags

Review + create

Whether to enable public connectivity to Azure Batch through public DNS provided by Azure Batch. Default setting is All networks. [Learn more](#)

Public network access

☒ All networks
 ☐ Selected networks
 ☐ Disabled

Private endpoint

Create a private endpoint to allow a private connection to this resource. Additional private endpoint connections can be created within the Batch account or private link center. [Learn more](#)

+ Create a private endpoint

| Name | Subscription | Resource group | Region | Subnet | Private DNS Zone |
|---|--------------|----------------|--------|--------|------------------|
| Click on add button to add private endpoint | | | | | |

Review + create

Previous

Next: Tags >

Microsoft Azure

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

Home > Batch accounts >

New Batch account

Provide basic Batch account info

Basic

Advanced

Networking

Tags

Review + create

Validation passed

Basics

Subscription name

Azure for Students

Resource group

data-grp

Batch account

mygptbatch

Location

East US

Storage account name

mytuapp

Storage account type

Standard_LRS

Storage account kind

StorageV2

Authentication mode

StorageKeys

Advanced

Identity type

None

Public network access

AllNetworks

Pool allocation mode

Batch service

Authentication mode

AAD,SharedKey,TaskAuthenticationToken

Create

Previous

Next

Download a template for automation

Microsoft Azure

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

Home > Microsoft.BatchAccount_2023_4_25_19_10_24 | Overview

Deployment

Overview Inputs Outputs Template

Your deployment is complete

Deployment name: Microsoft.BatchAccount_2023_4_25_19_10_24
Subscription: Azure for Students
Resource group: data-grp

Start time: 4/25/2023, 7:11:05 PM
Correlation ID: 9c524793-3328-4300-81b6-0f75ae119...

Deployment details

Next steps

[Go to resource](#)

Give feedback
Tell us about your experience with deployment

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 >](#)

mygptbatch | Pools

Batch account

Search: poo

[Add](#) [Add \(JSON editor\)](#) Columns Refresh

Features: Pools

State == all Add filter

Search for pool by ID or...

Pagination effort limit: 1 Actual: 1

| Pool ID | Dedicated nodes | Spot/low-priority nodes | Current vCPUs | VM size | Allocation state |
|--|-----------------|-------------------------|---------------|---------|------------------|
| No pools were found for this Batch account | | | | | |

Microsoft Azure

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

Home > Microsoft.BatchAccount_2023_4_25_19_10_24 | Overview > mygptbatch | Pools >

Add pool

mygptbatch

POOL DETAIL

Pool ID: mypool ✓

Display name: mypool ✓

Identity: None User-assigned

OPERATING SYSTEM

Select "Marketplace" to deploy VMs using an Azure Marketplace image, "Cloud Services" to deploy Cloud Service worker role VMs (deprecated) or "Custom Image - Shared Image Gallery" to deploy using a custom VM image, or "Graphics and rendering" if you want to deploy VMs with premium graphics and rendering applications pre-installed (deprecated).

Image Type: Marketplace

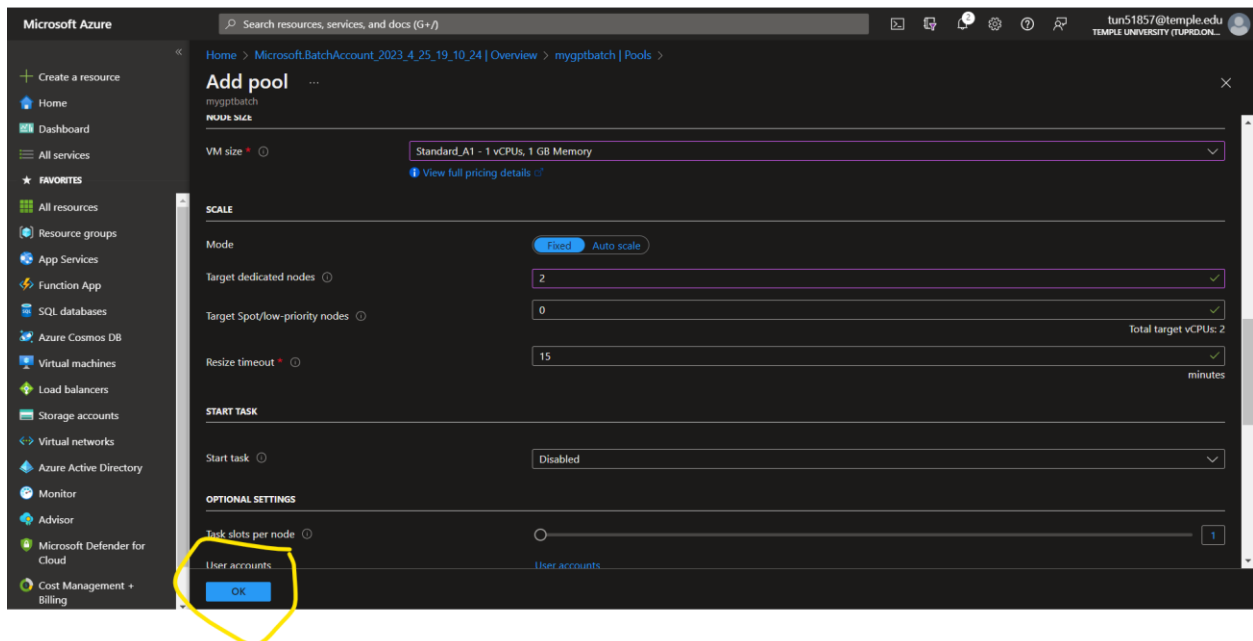
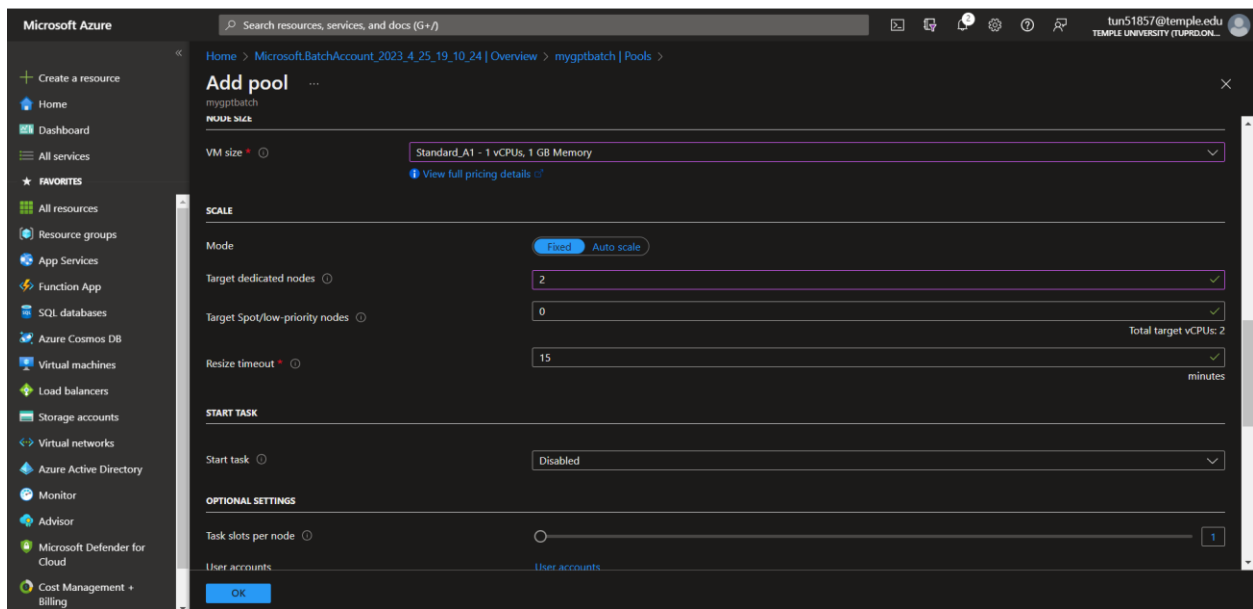
Enable unverified image: ☐

Publisher: microsoftwindowserver

Offer: windowserver

Sku: 2019-datacenter-core-smalldisk

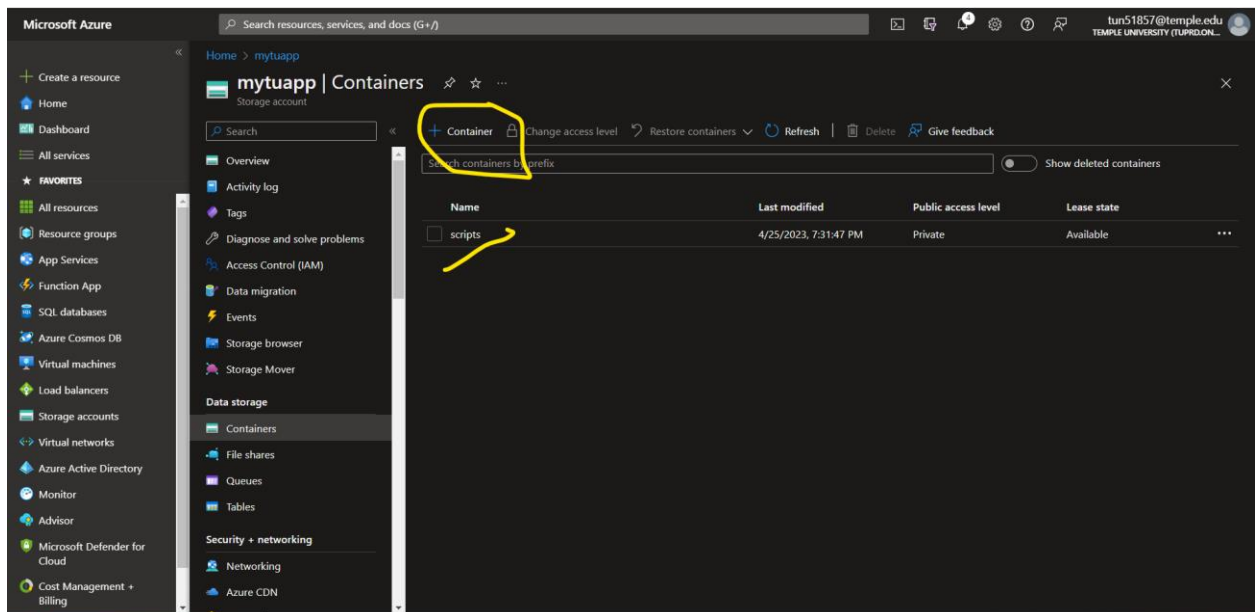
[OK](#)



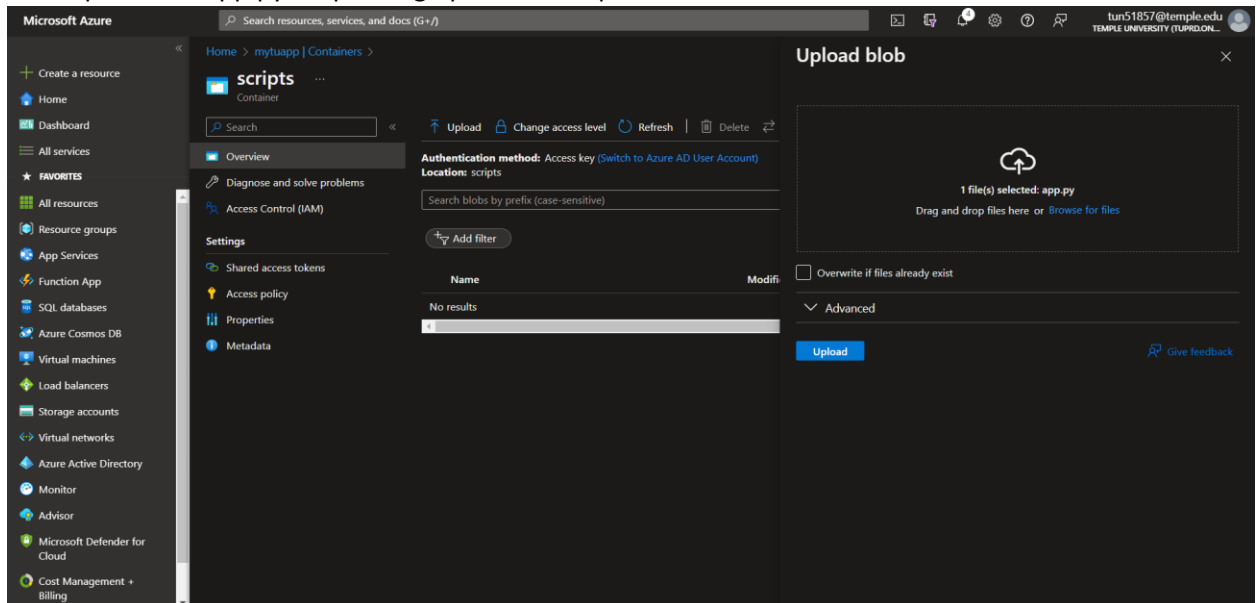
Batch creates the pool immediately but takes a few minutes to allocate and start the compute nodes. On the Pools page, you can select myPool to go to the myPool page and see the pool status of Resizing under Essentials > Allocation state.

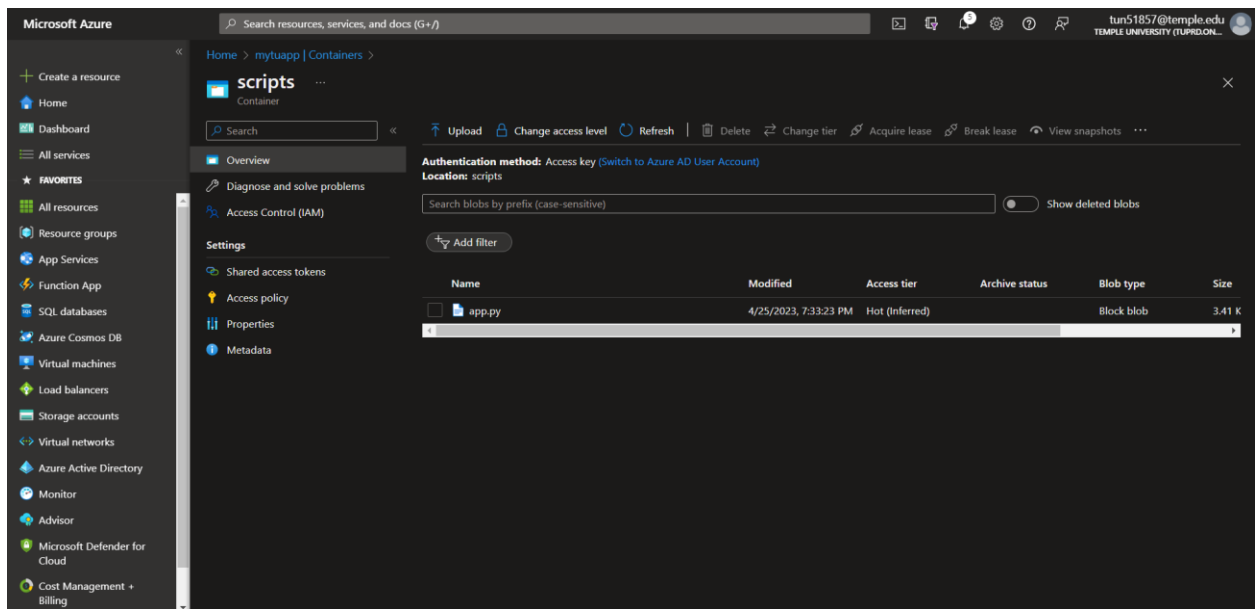
Upload the python script in the Azure blob storage:

Go to storage account>> data storage>>container , press on + and name the folder as “scripts”

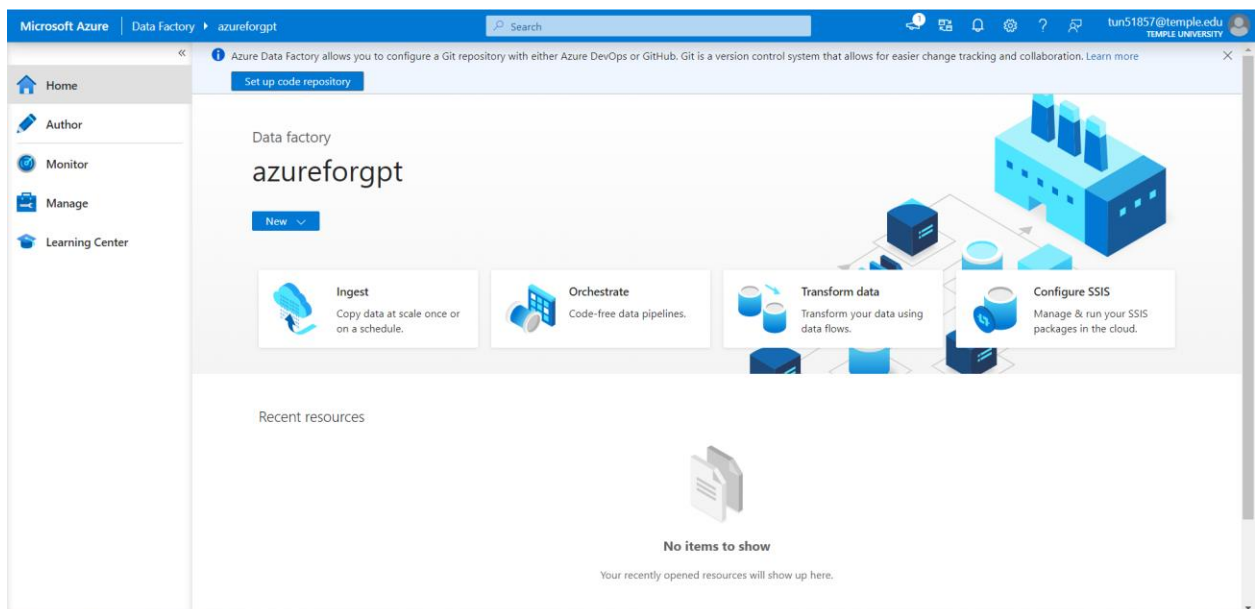


Now upload the app.py script using upload blob option.

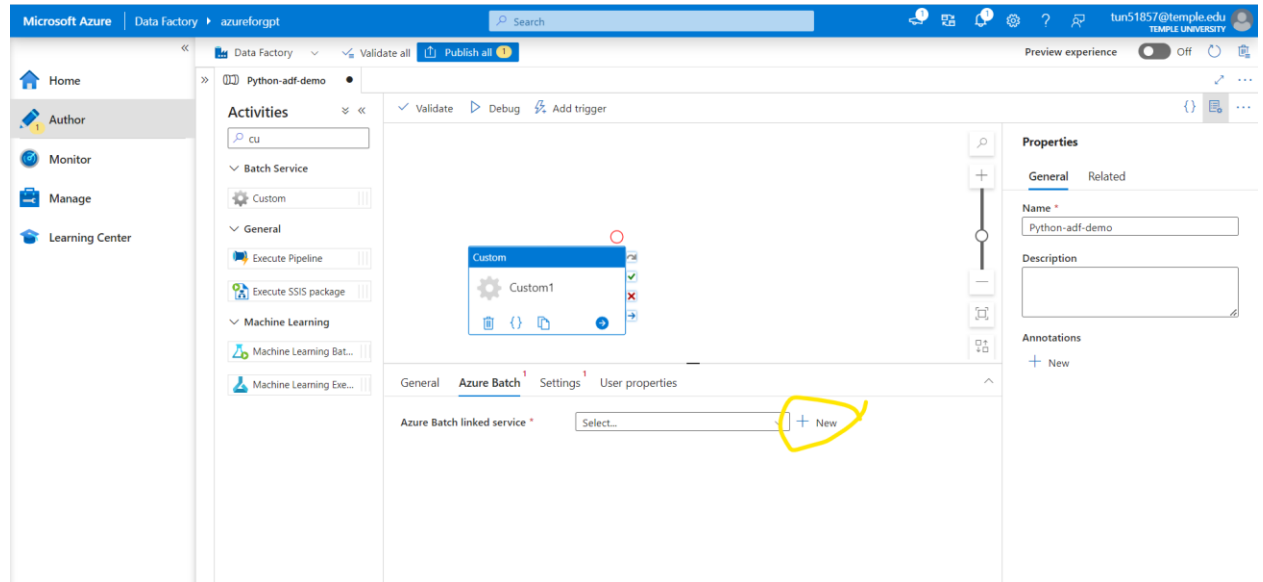




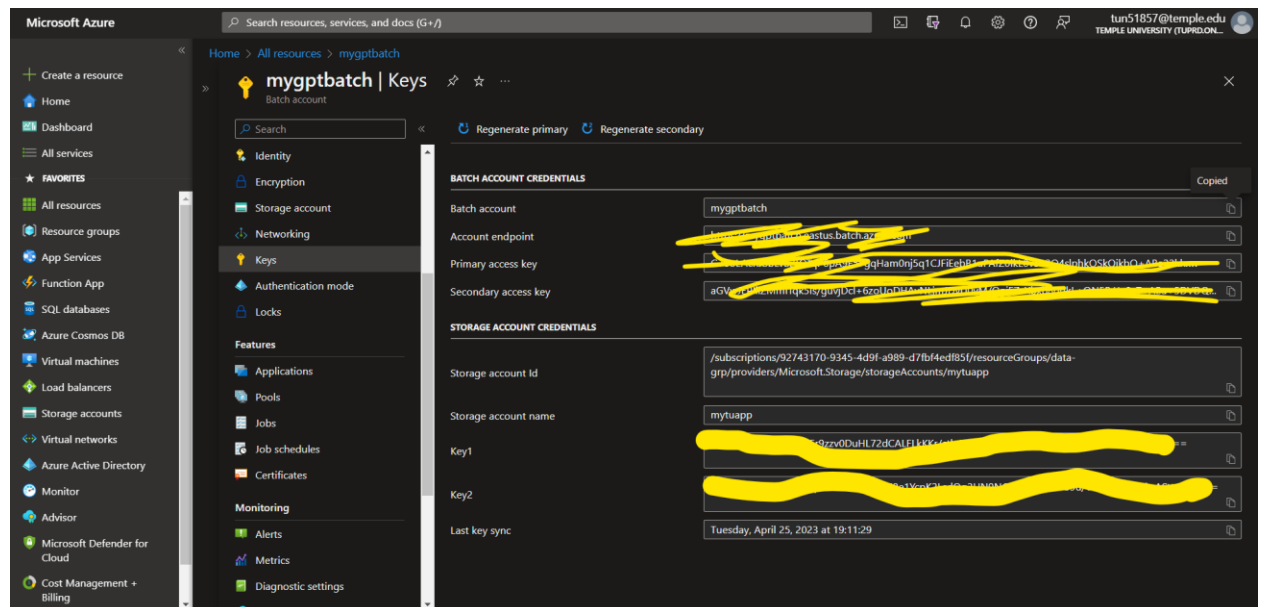
Now go to Azure Data factory to add the custom activity in the Azure Data factory Pipeline and configure to use the Azure batch pool and run the python script.



Click on author>>activity and type custom. Under the batch service drag custom component and start configuring.



It will ask for the account key, go to the **azure batch** account ->Keys and copy the account key from there.



Configure Custom Activity in ADF

Now go back again to the pipeline's custom activity. You have Azure batch linked service is available just select that.

This screenshot shows the 'New linked service' dialog for 'Azure Batch' in the Microsoft Azure Data Factory portal. The 'Access key' field is highlighted with a yellow circle. The 'Storage linked service name' dropdown is also highlighted with a yellow circle. The 'Create' button is visible at the bottom.

Microsoft Azure | Data Factory | azureforgpt

Home | Author | Monitor | Manage | Learning Center

Activities: cu

Batch Service: Custom

General: Execute Pipeline, Execute SSIS package, Machine Learning, Machine Learning Bat...

Machine Learning: Machine Learning Exe...

General | **Azure Batch** | Settings | User properties

Azure Batch linked service * Select...

New linked service
Azure Batch Learn more

Connect via integration runtime * AutoResolveIntegrationRuntime

Authentication method * Account Key

Access key * Azure Key Vault

Access key *

Account name * myqptbatch

Batch URL * https://myqptbatch.eastus.batch.azure.com

Pool name * myPool

Storage linked service name * Select...

Annotations
+ New

> Advanced

Create Cancel Test connection

This screenshot shows the 'New linked service' dialog for 'Azure Blob Storage' in the Microsoft Azure Data Factory portal. The 'Create' button is highlighted with a yellow circle. The 'Test connection' button is also highlighted with a yellow circle. The 'Connection successful' message is visible at the bottom right.

Microsoft Azure | Data Factory | azureforgpt

Home | Author | Monitor | Manage | Learning Center

Activities: cu

Batch Service: Custom

General: Execute Pipeline, Execute SSIS package, Machine Learning, Machine Learning Bat...

Machine Learning: Machine Learning Exe...

General | **Azure Batch** | Settings | User properties

Azure Batch linked service * Select...

New linked service
Azure Blob Storage Learn more

Authentication type Account key

Connection string Azure Key Vault

Account selection method * From Azure subscription Enter manually

Azure subscription * Azure for Students (92743170-9345-4d9f-a989-d7fb4edf85f)

Storage account name * mytuapp

Additional connection properties
+ New

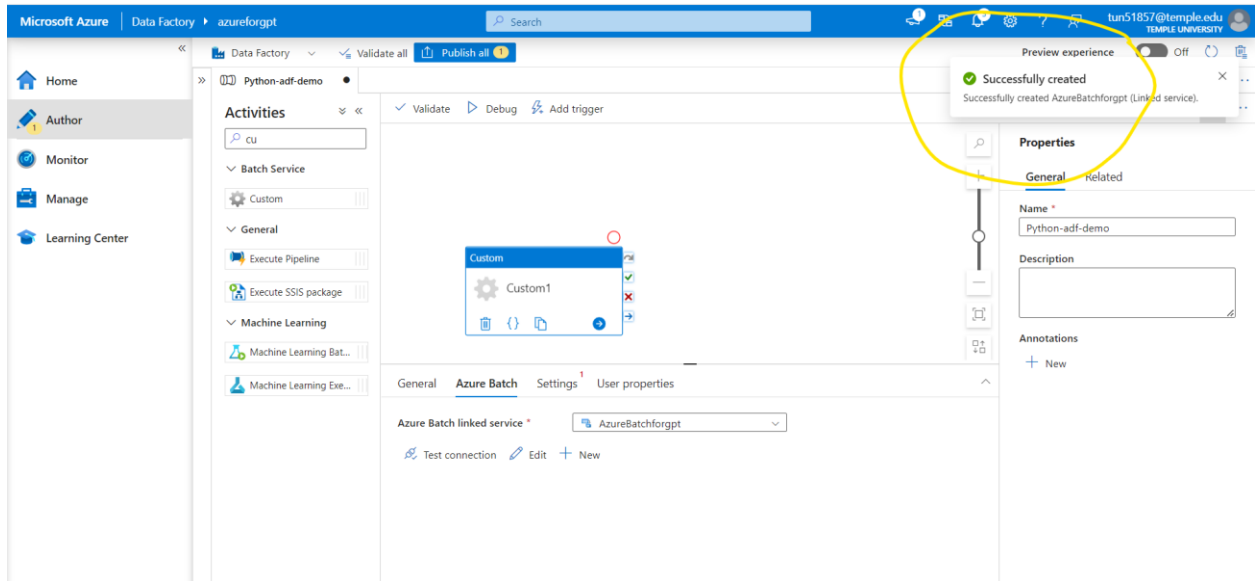
Test connection * To linked service To file path

Annotations
+ New

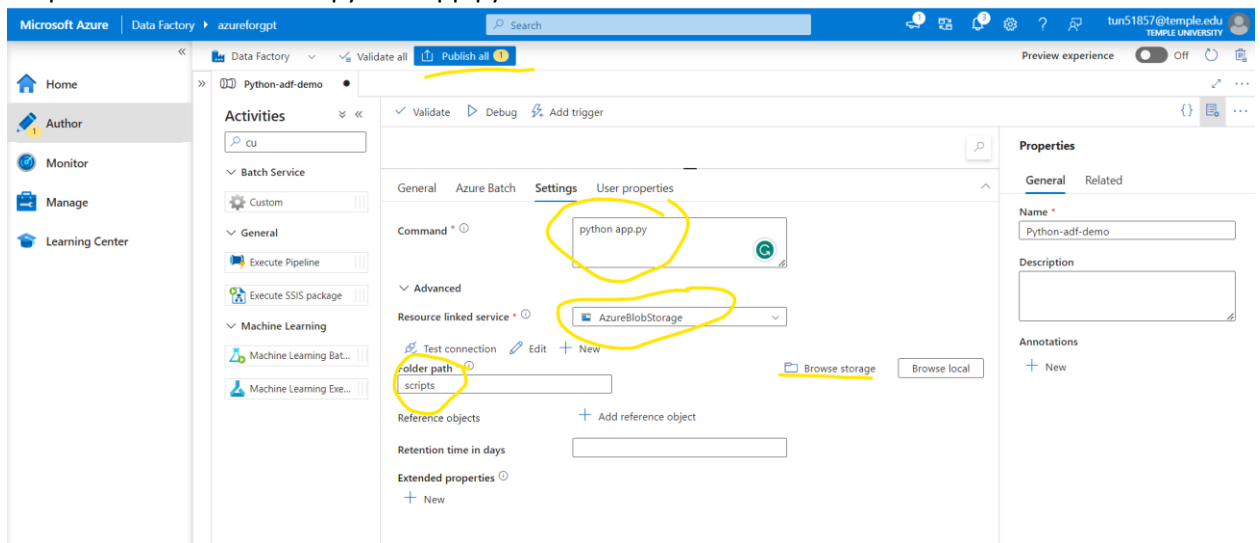
> Parameters

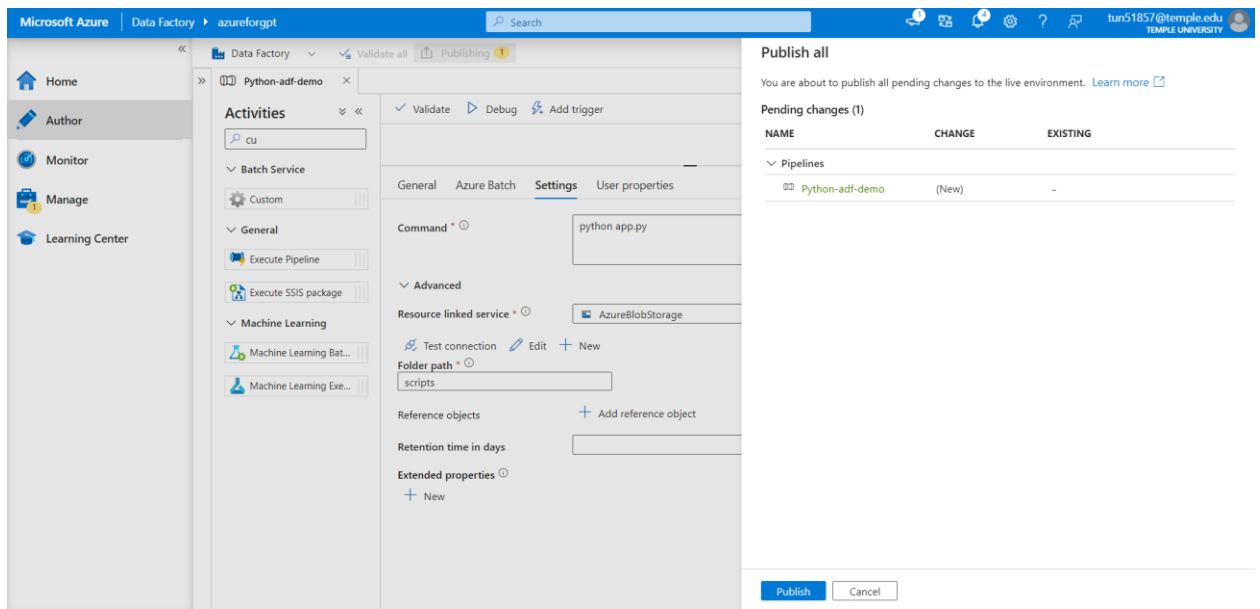
Create Cancel

Connection successful
Test connection



Go to the Settings tab. Under it now type in the command which you want to execute. As I wanted to run the python script only, hence I will type the command to execute the python script which looks like this: `python app.py`





Now our pipeline is ready to run. Just click on the debug and try to run and test the pipeline.

