Module 8: CI/CD with Azure DevOps

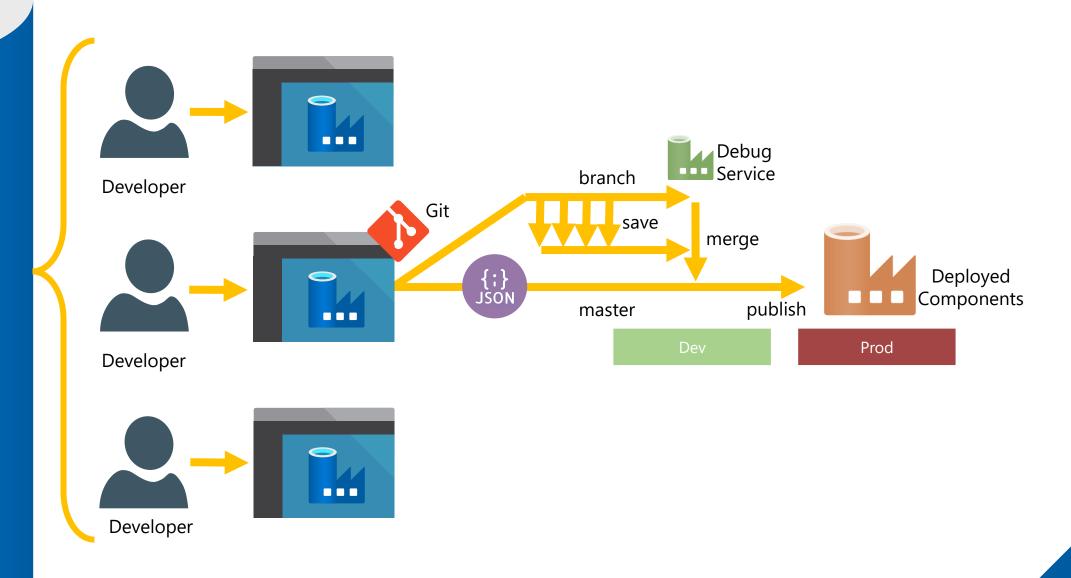
Source Control vs Developer UI

MARM Templates Deployments

PowerShell Deployments

Source Control vs Developer UI

Data Factory Continuous Integration









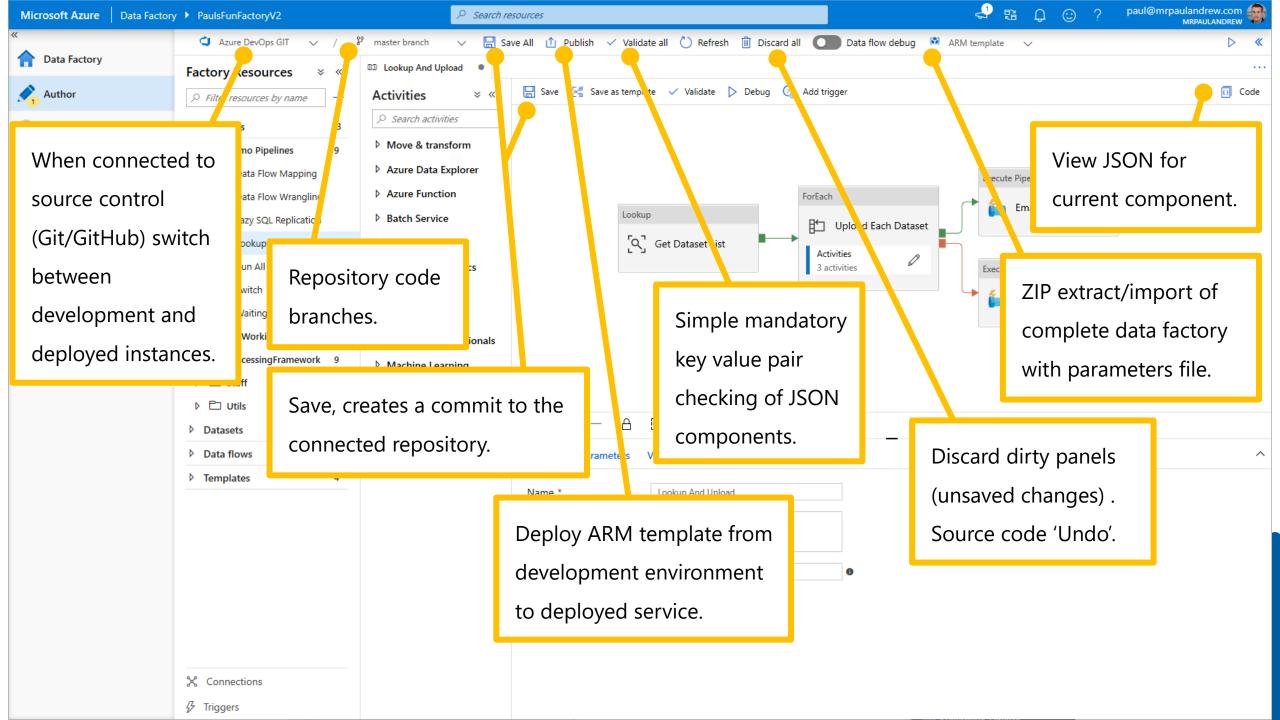
PaulsFunFactory

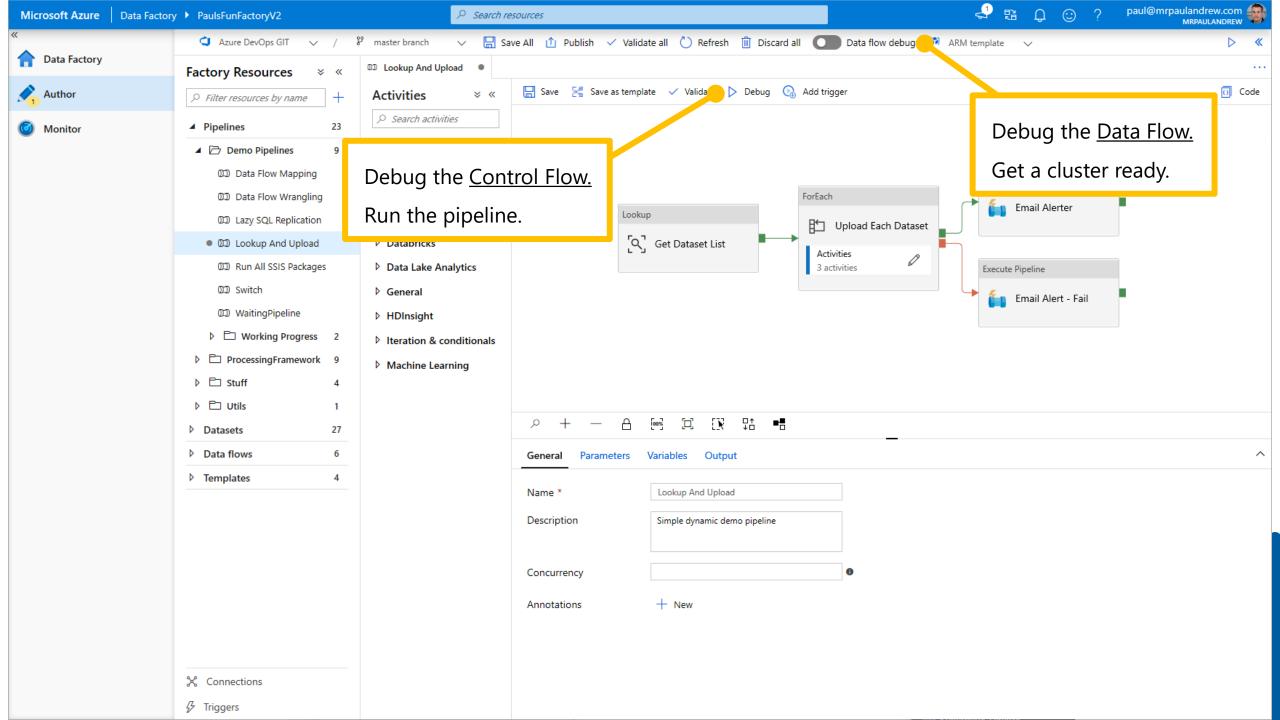


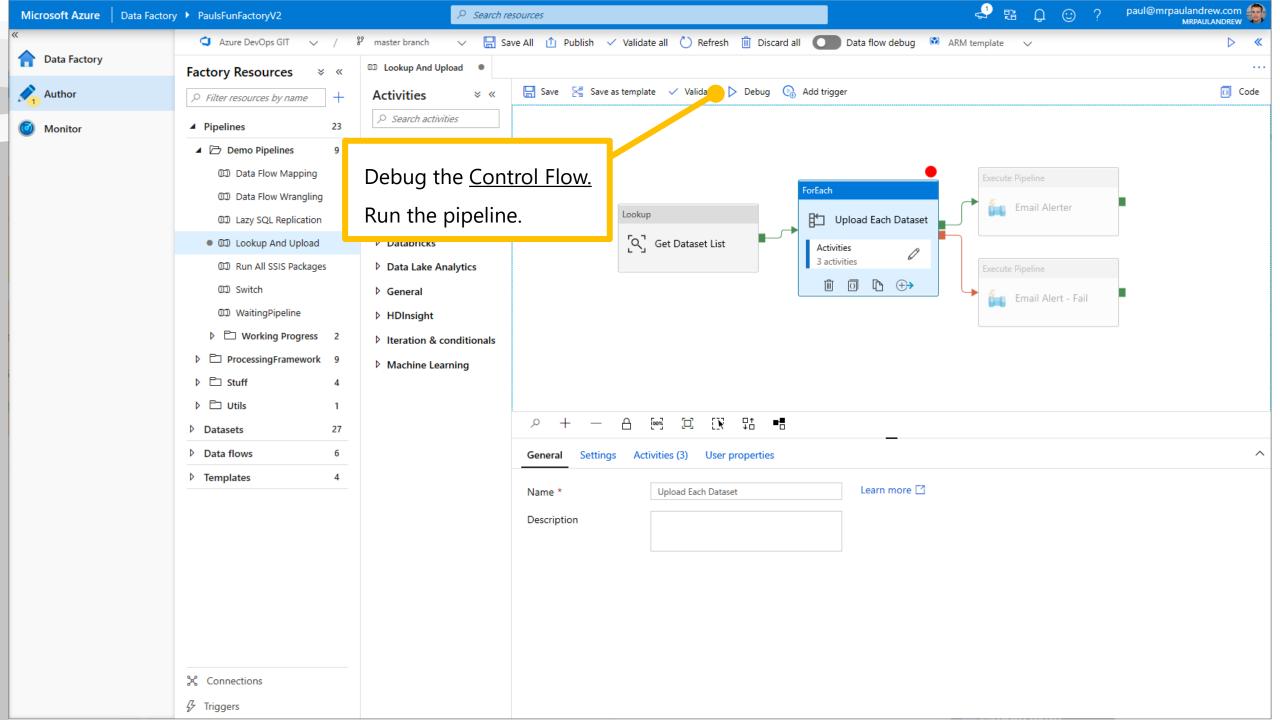
Documentation



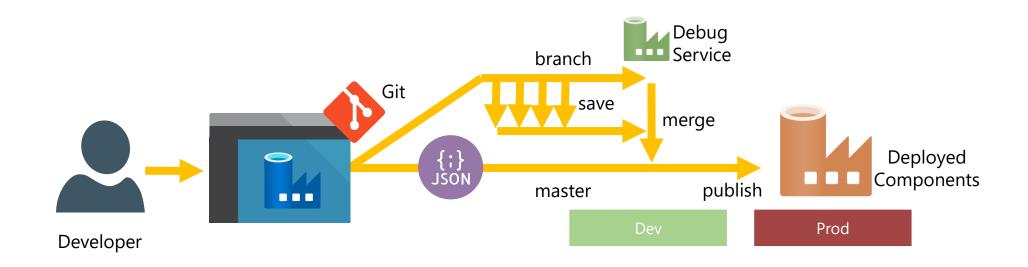
Author & Monitor



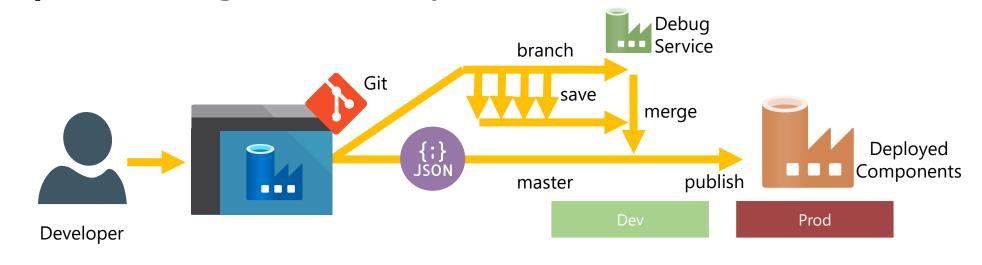




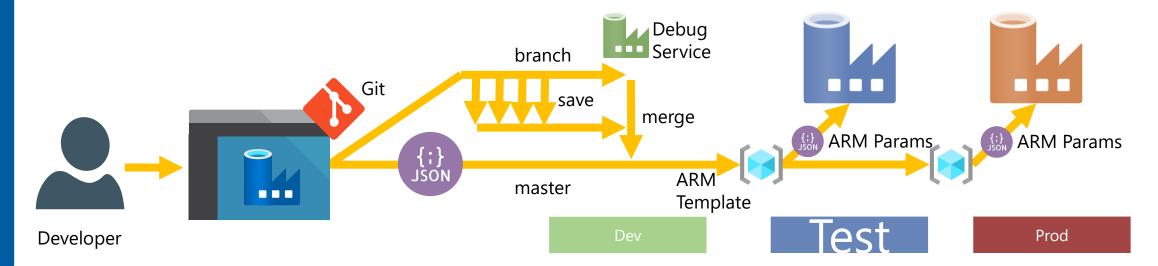
ARM Template Deployments

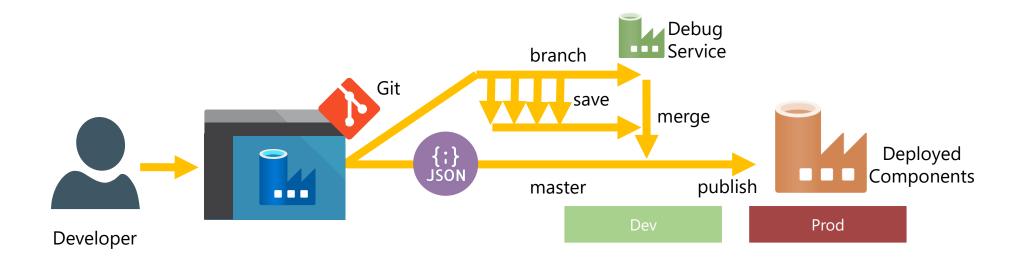


Option 1 – Single Data Factory Service

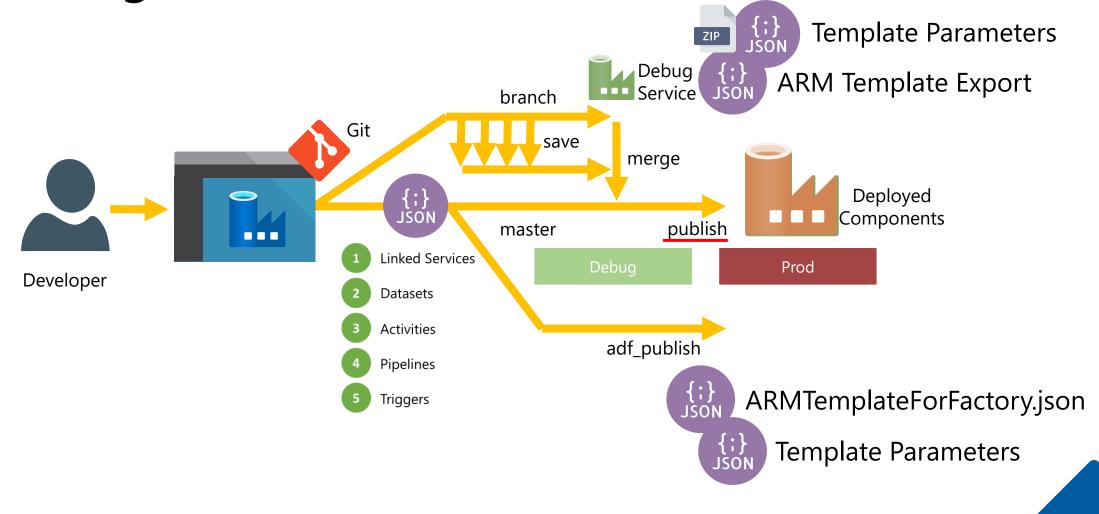


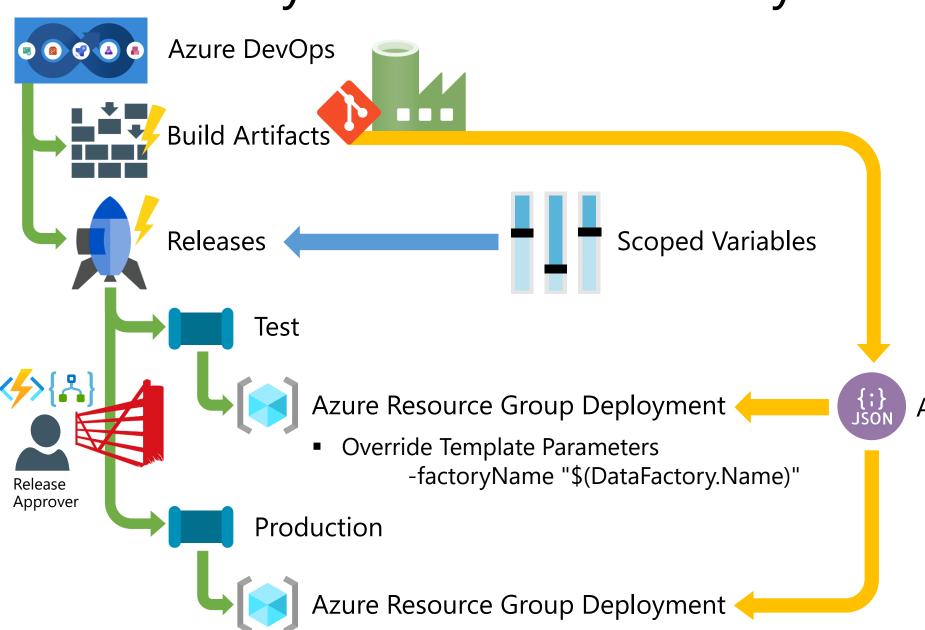
Option 2 – ARM Templates for Multiple Data Factory Services

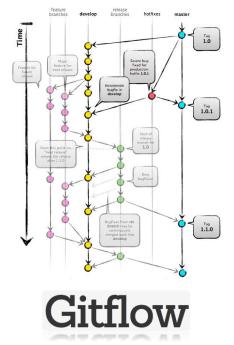




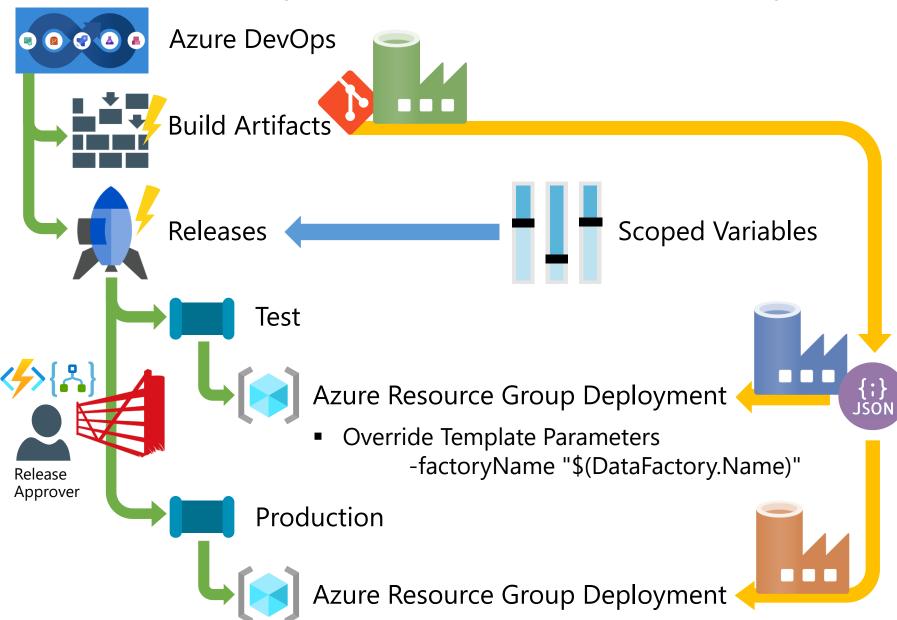
Getting Our ADF Source Code







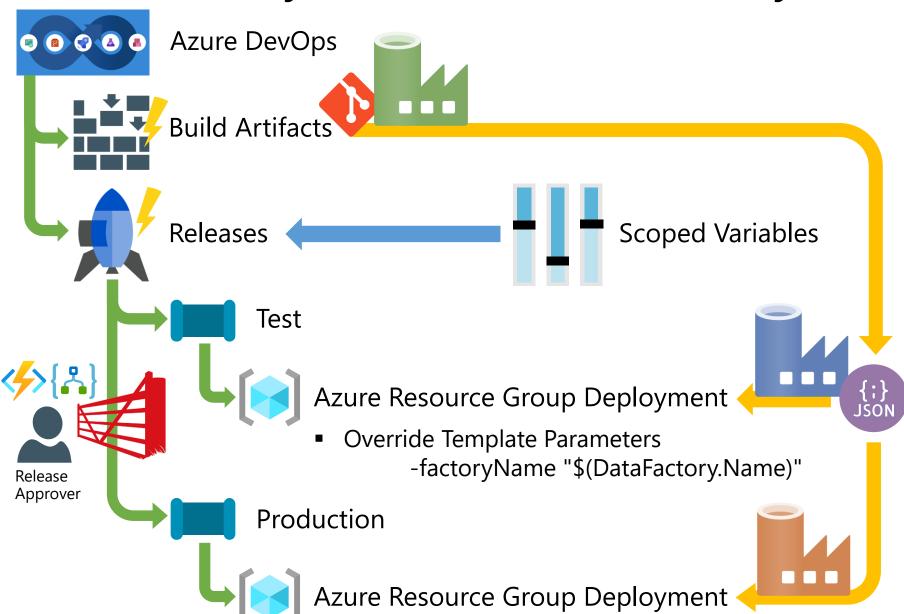
ARMTemplateForFactory.json



- 1 Linked Services
- 2 Datasets
- **3** Activities
- 4 Pipelines
- 5 Triggers

ARMTemplateForFactory.json





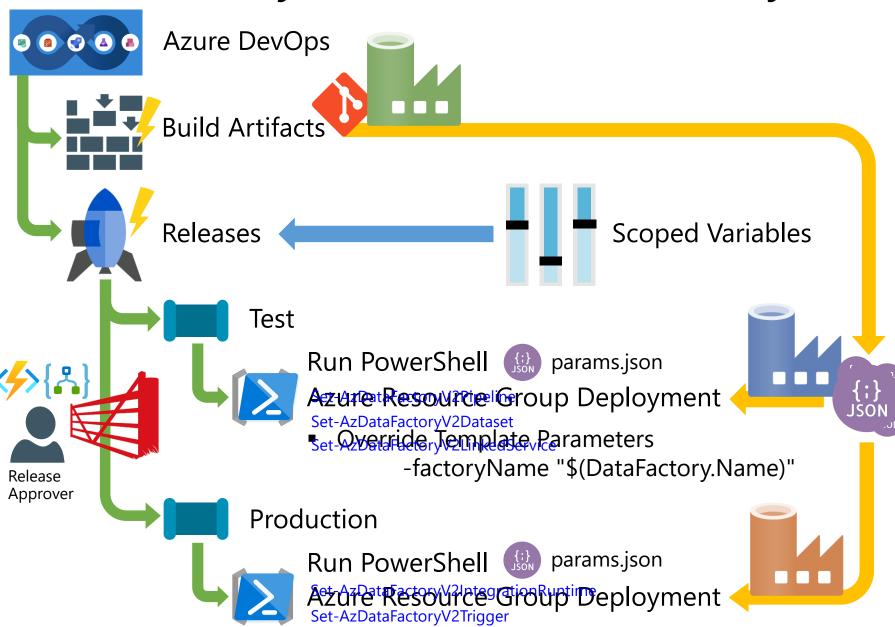


ARMTemplateForFactory.json

DEMO

PowerShell Deployments

Data Factory Continuous Delivery - Option 3



- 1 Linked Services
- 2 Datasets
- 3 Activities
- 4 Pipelines
- 5 Triggers

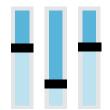
linkedservices.json
nipelines & activites ison
datasets.json
triggers.json
multiplication
multip



Releases

Release

Approver



Scoped Variables







params.json

Set-AzDataFactoryV2Pipeline Set-AzDataFactoryV2Dataset Set-AzDataFactoryV2LinkedService

Production



Run PowerShell (SSN)



params.json

Set-AzDataFactoryV2IntegrationRuntime Set-AzDataFactoryV2Trigger





Activities

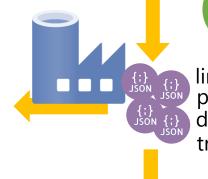
Pipelines

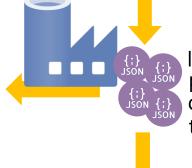
Triggers

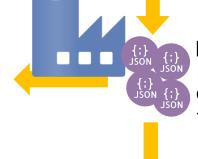
linkedservices.json pipelines & activites.json datasets.json triggers.json

1) Handle own dependencies.

2) Handle own removals.







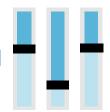
- Option 4



Releases

Release

Approver



Scoped Variables



Import-Module -Name "azure.datafactory.tools"
Publish-AdfV2FromJson -RootFolder \$AdfPath

- -ResourceGroupName \$resourceGroupName
- -DataFactoryName \$dataFactoryName
- -Location \$region
- -Stage \$configFilePath

Production



Test

Publish Azure Data Factory



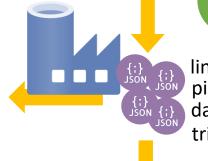


3 Activities

4 Pipelines

5 Triggers

linkedservices.json pipelines & activites.json datasets.json triggers.json



Deployment Options Summary

Option 1 – Use a single Data Factory service.

Option 2 – ARM Templates for multiple Data Factory services (environments).

Option 3 – Use PowerShell cmdlets for each ADF artifact.

Option 4 – Use a PowerShell module or custom Azure DevOps task.

Data Factory DevOps Story Summary

What is your code branching strategy?

Which source control tool to use?

How many environments do we want?

What deployment method do we want to use?

What artifacts are we going to use?...

How much control do you want?



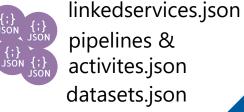






OR





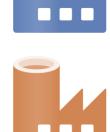
triggers.json











Module 8: CI/CD with Azure DevOps

Source Control vs Developer UI



MARM Templates Deployments



© PowerShell Deployments

