

Continuous Integration and Continuous Delivery with Azure Data Factory and Azure DevOps

Azure Labs by Roque Daudt (rdaudt@yahoo.com)

01 – Overview

What the labs are about

Azure Data Factory (ADF) is Microsoft's platform for data movement, integration and transformation. It is a complex, ever-growing product that is becoming critical to many organizations that build data-based services and tools in Azure.

In parallel, DevOps is a critical aspect for most IT projects and operations. It is rare that new projects won't look at how to build Continuous Integration and Continuous Delivery (CI/CD) within the project and the operation. DevOps is a complex subject, too, one that takes time to grasp and master.

This series of labs is aimed at individuals and organizations that

- a) are using or will use ADF and
- b) want to get initial insights on how to build CI/CD for ADF using Azure DevOps.

It is not a class about Azure Data Factory neither about Azure DevOps. We will touch on the Azure DevOps aspects that help to get an initial understanding of how it can work for Azure Data Factory (ADF) AND the ADF aspects that need to be known in order to run the labs.

Acknowledgements

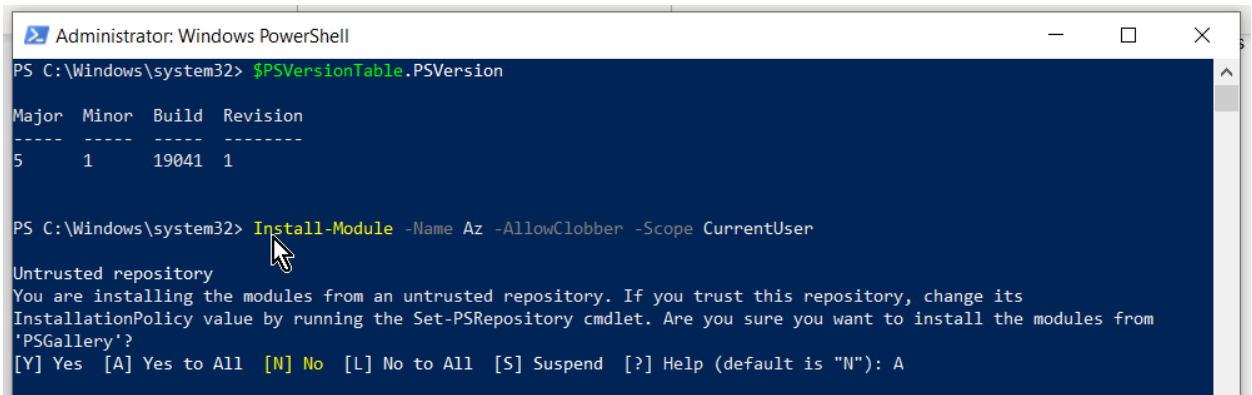
These labs were put together with the help of great articles written by greater authors out there. Special thanks to Alex Volok (<https://www.alexvolok.com/>) and Kamil Nowinski (<https://sqlplayer.net/kamil-nowinski/>).

What you will need

In order to follow the labs, you need the following

1. Access to an Azure subscription with a privileged account. In real world, individuals with distinct roles would run distinct parts of these labs. It requires work to secure access and configure the roles. These labs were run with a Global Administrator account and haven't been tested with other accounts.
2. Azure PowerShell in your workstation.
 - a. Detailed instructions about installing PowerShell are found at <https://docs.microsoft.com/en-us/powershell/azure/install-az-ps?view=azps-4.7.0>
 - b. The simplest way is to

- i. Start PowerShell as Admin
- ii. Run **Install-Module -Name Az -AllowClobber -Force** and confirm installation when required



```
Administrator: Windows PowerShell
PS C:\Windows\system32> $PSVersionTable.PSVersion

Major Minor Build Revision
-----
5      1      19041  1

PS C:\Windows\system32> Install-Module -Name Az -AllowClobber -Scope CurrentUser

Untrusted repository
You are installing the modules from an untrusted repository. If you trust this repository, change its
InstallationPolicy value by running the Set-PSRepository cmdlet. Are you sure you want to install the modules from
'PSGallery'?
[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "N"): A
```

Some experience with and/or knowledge of Azure Storage Accounts, Azure Key Vault, ADF, Azure DevOps and Azure Resource Manager (ARM) will help to run the labs faster and get more out of them but they are not a pre-requisite. Individuals with a basic understanding of what these services are about, as well as the main concepts behind them will be able to successfully run the labs.

Configure your lab workstation

Create folder C:**ADFDEVOPS** in your workstation. Download the zip file from ... and unzip it at

Once you unzip it you should find two subfolders: **.\labs** and **.\resources**.

Next

02 – Create Lab Environments Azure Services