Demo 1: SQL Server 2019 VM sync to ADLSgen2

This demo targets to demonstrate a typical data movement scenario that, on-prem database loading data to the cloud.

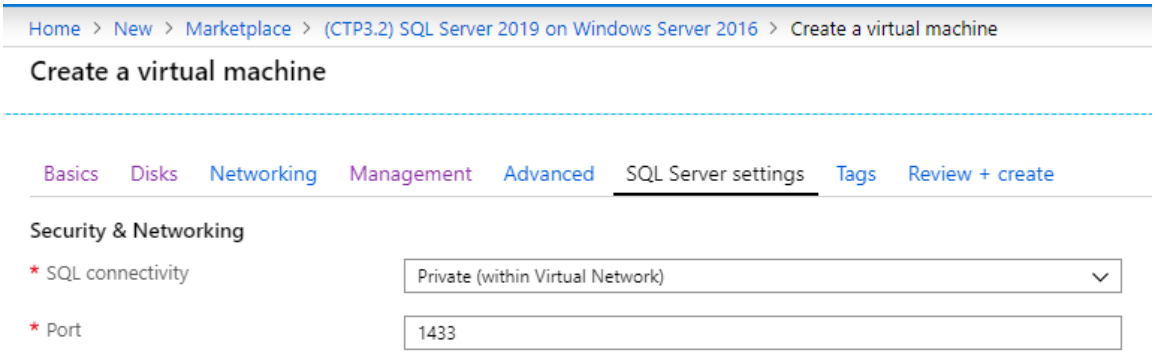
Step 1: VM Setup

This step is not relevant to ADF therefore skipped screenshot, only thing to notice is the machine used:

VM Imagine: (CTP3.2) SQL Server 2019 on Windows Server 2016

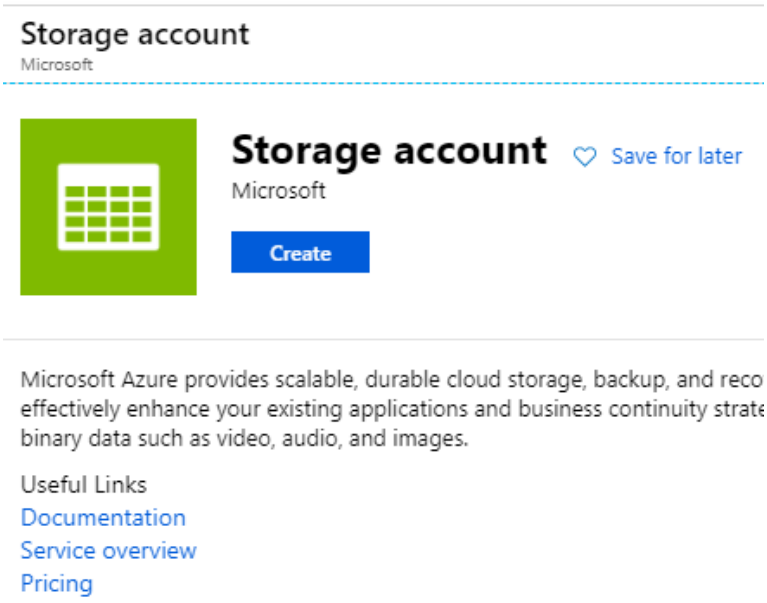
Size: Standard D4s v3 (4 vcpus, 16 GiB memory)

Connectivity: Private (within Virtual Network)

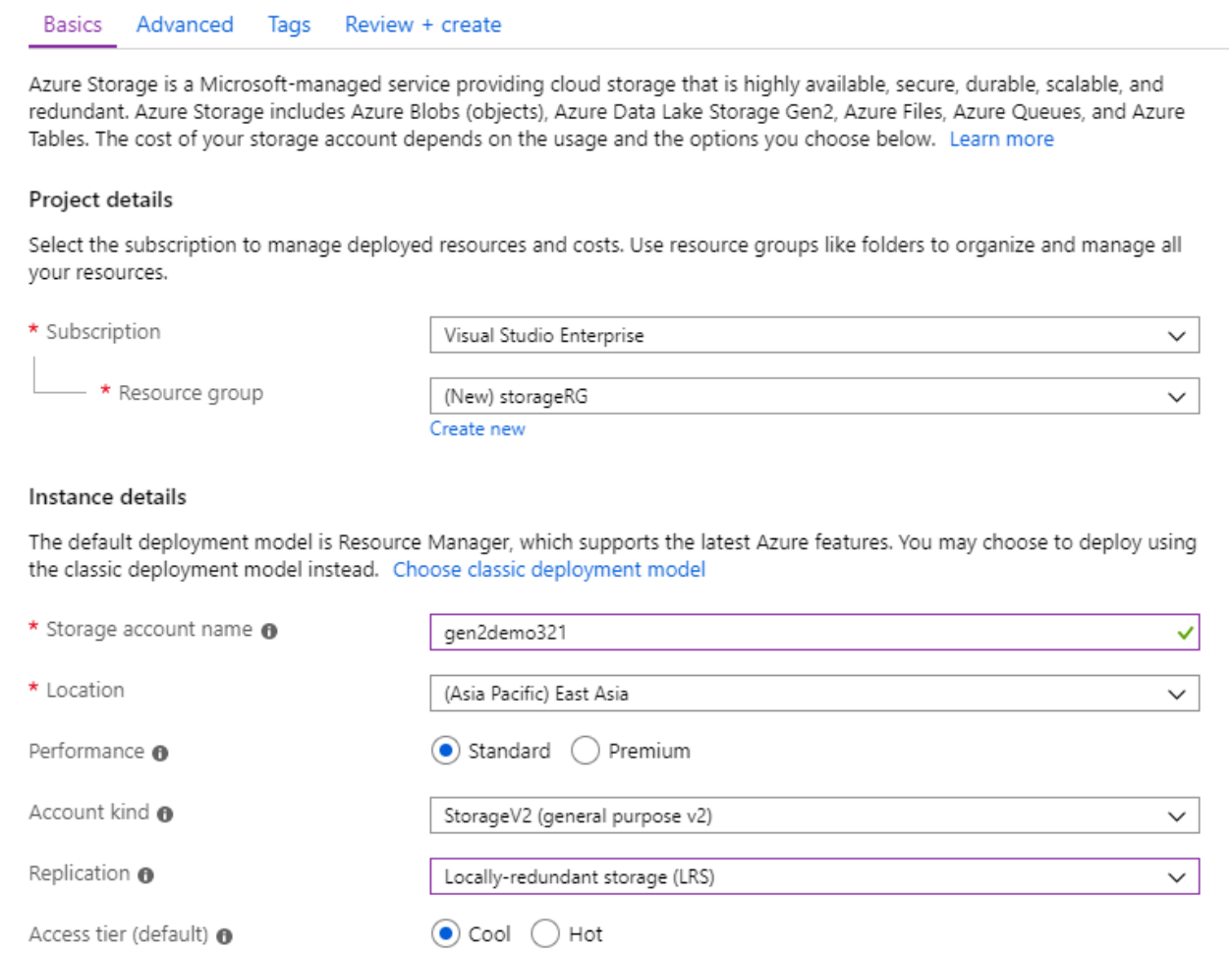


Step2: Create ADLSgen2

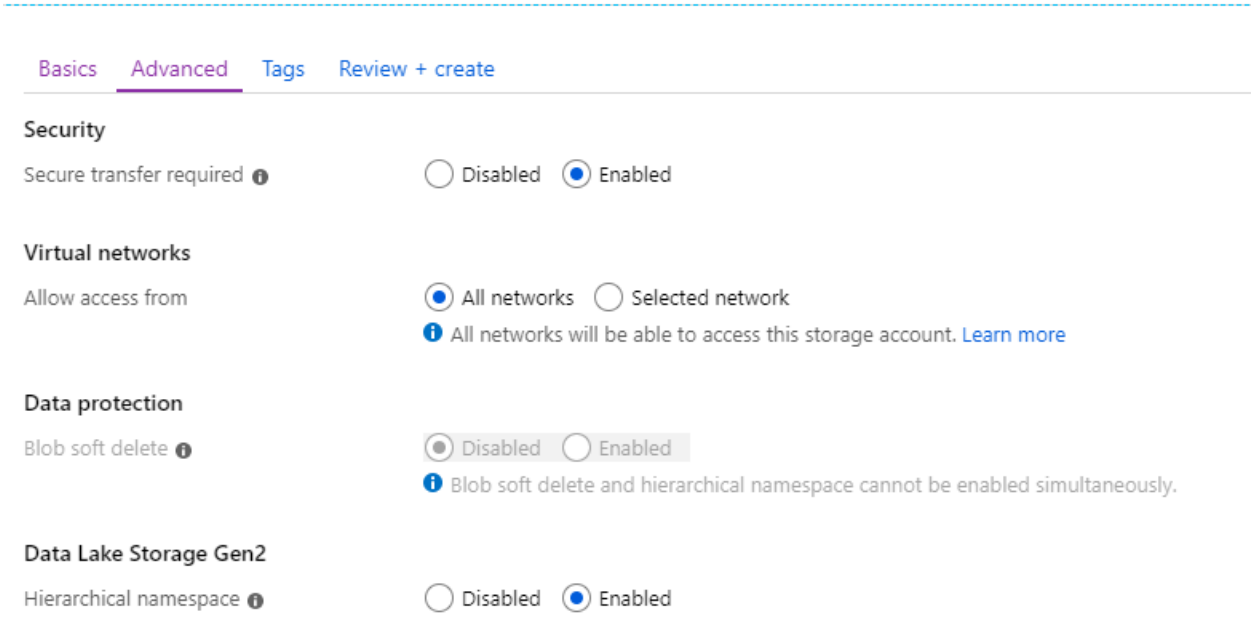
- On Azure portal, [New Service], then search for Storage Account, [Create]



- Define below attributes for the ADLSgen2, do note the Storage Account Name has to be unique



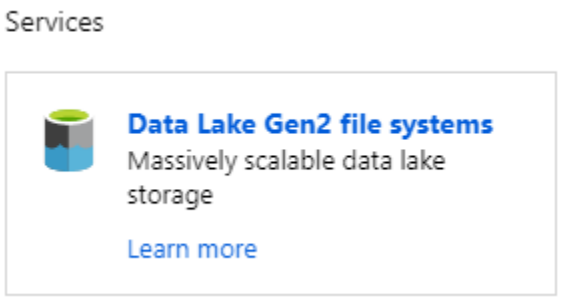
- And in the Advanced Tab:



- And click though [Next>] in Tags, then [Create]

Step 3: Configure the ADLSgen2

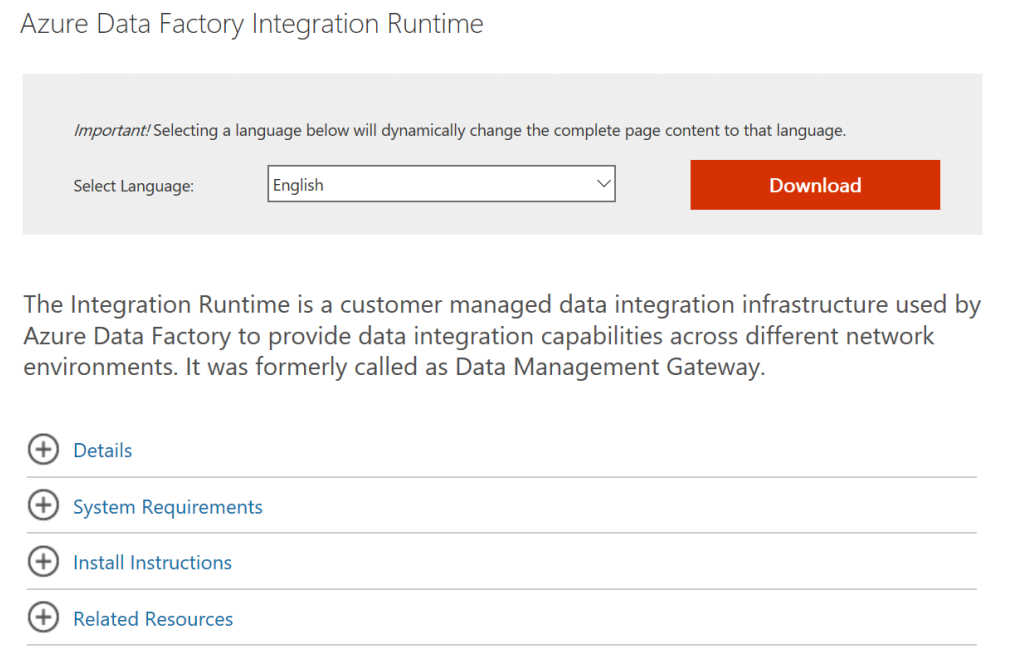
Once the resource creation is done, click on the resource name (or enter the resource name in the search bar). Click on below button to enter ADLSgen2 configuration page:

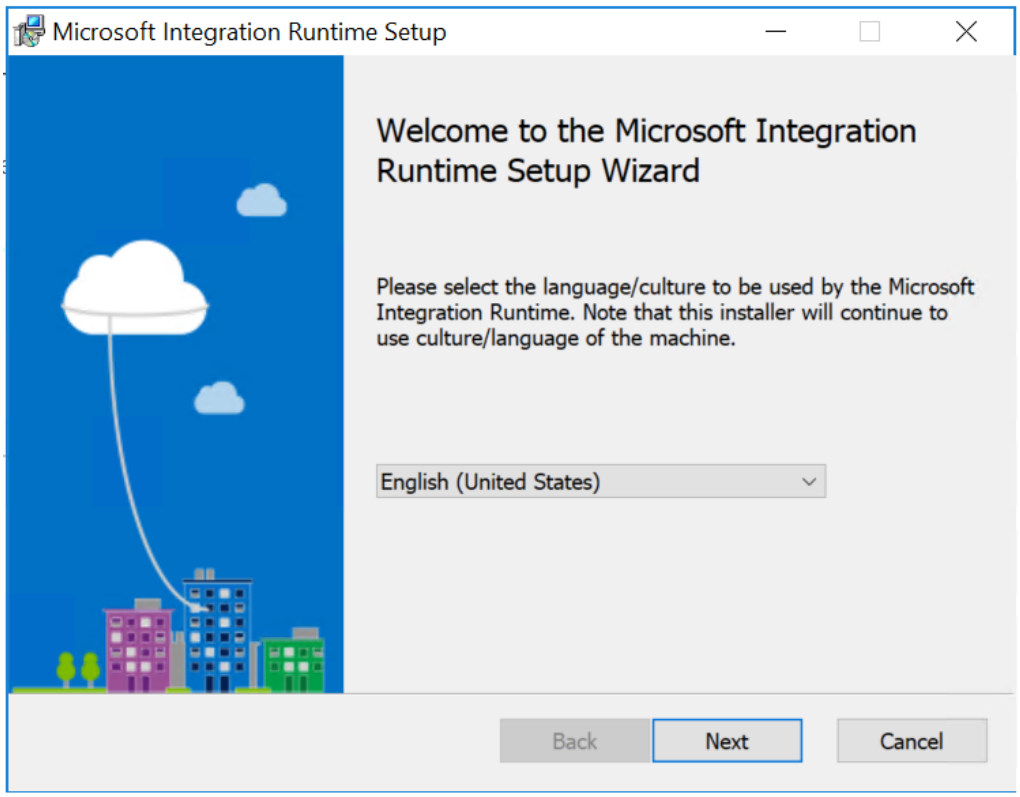


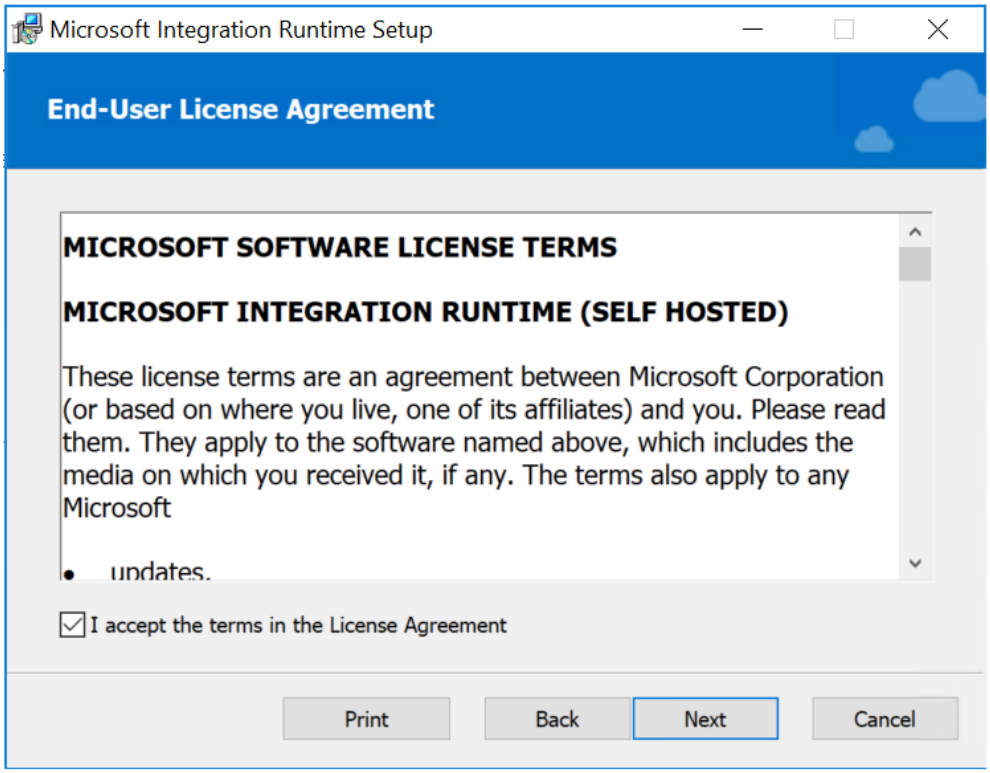
- [+ File System] to create a new file system. Enter [adlsfs] to create a new file system. Your ADLSgen2 is ready to use.

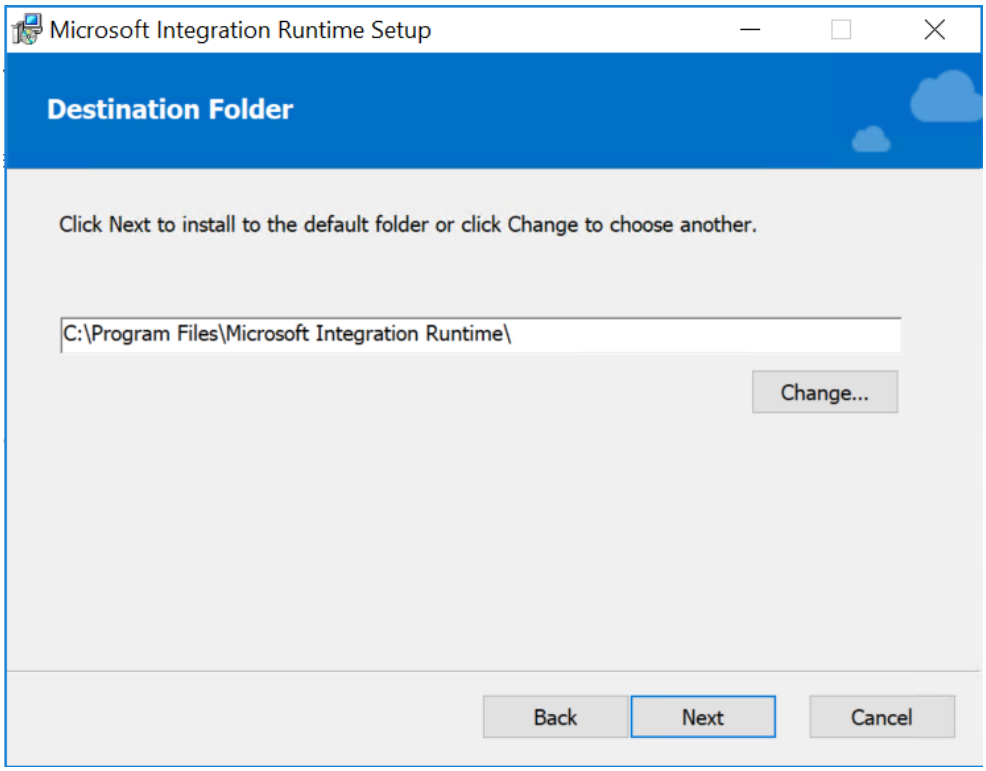
Step 4: Install and configure self-hosted Integration runtime (SHIR)

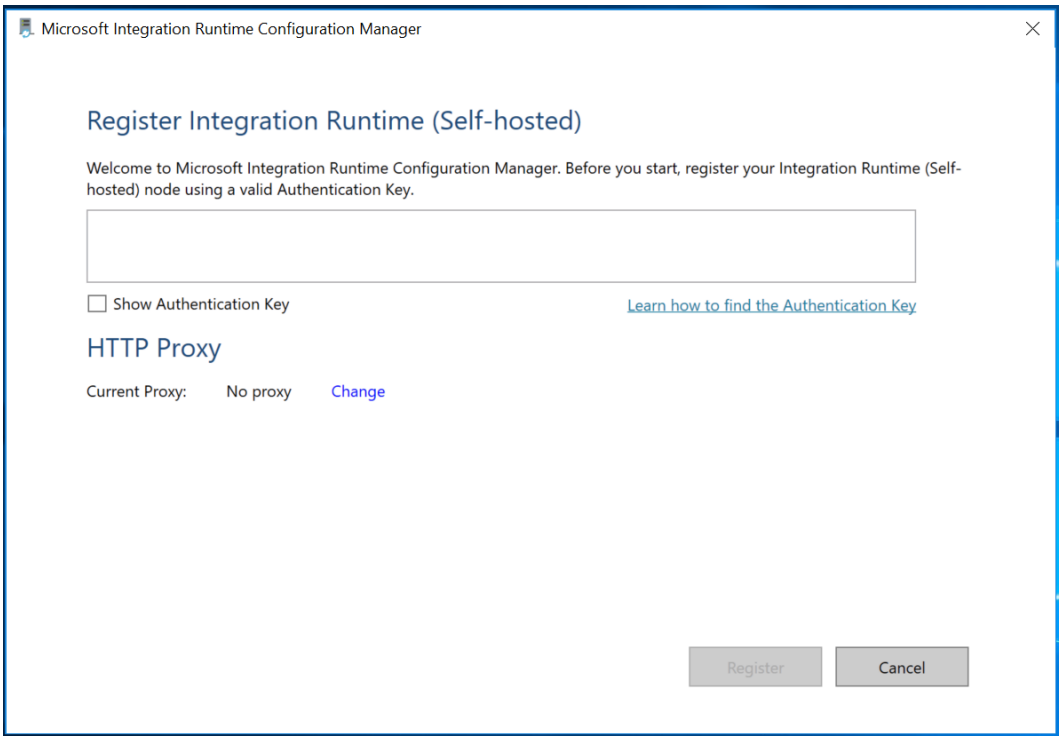
RDP to the VM, Download the SHIR from Internet (optionally deploy via design studio)





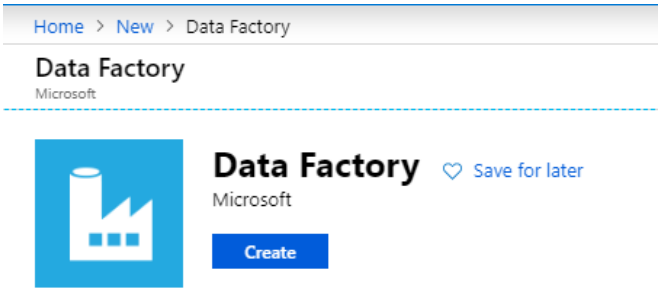




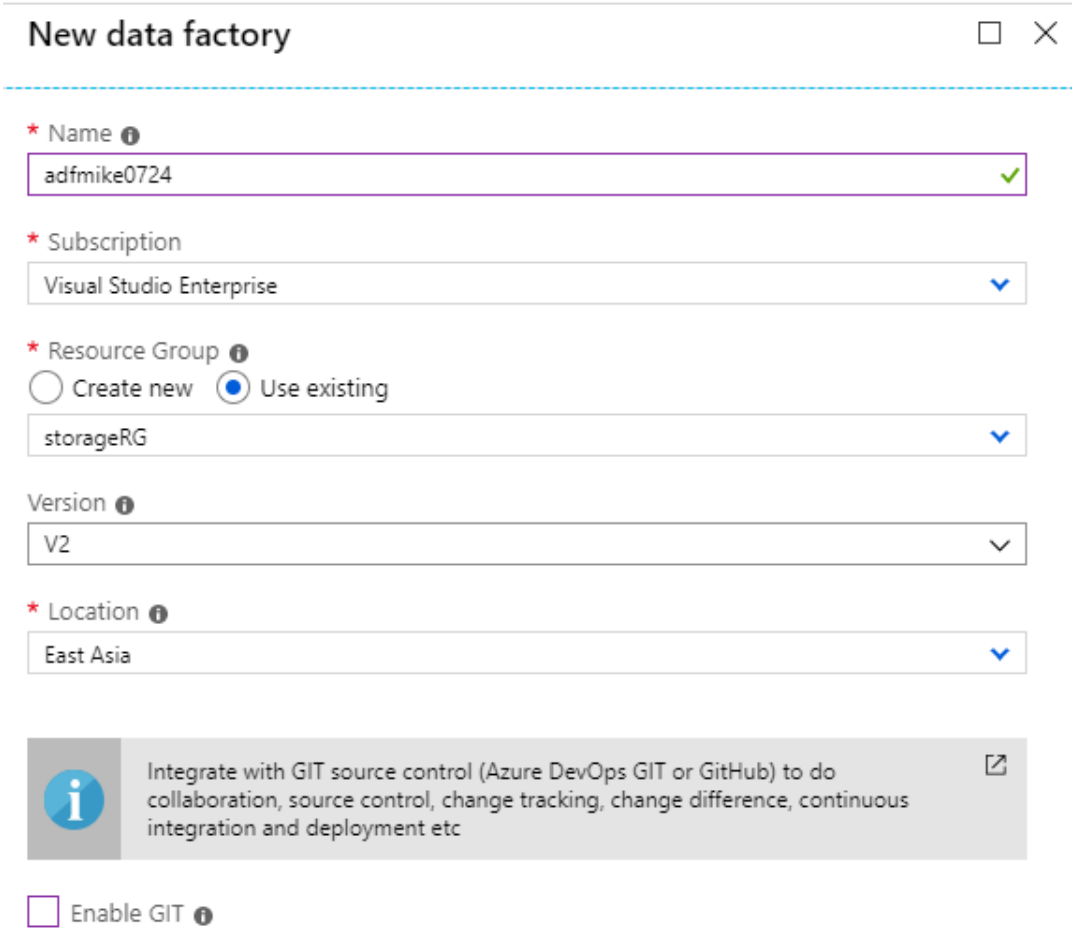


Step 5: Create your own ADF

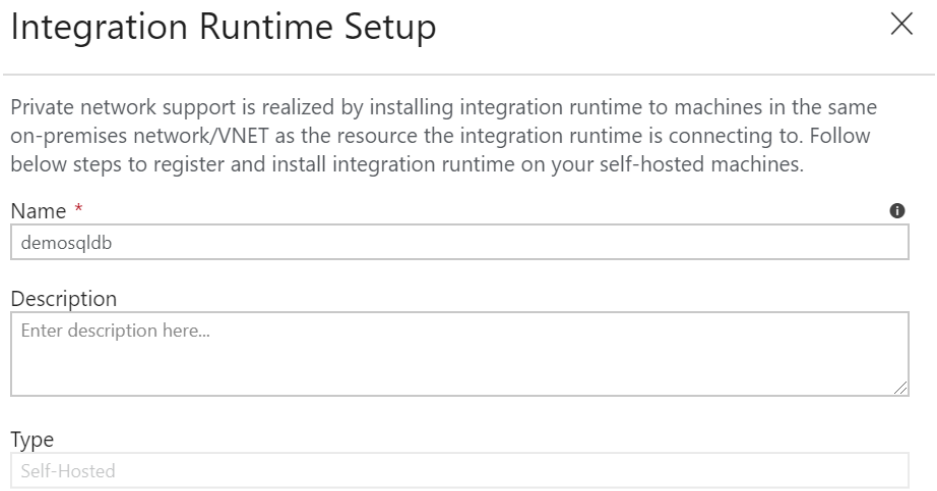
- In Azure portal, search for [Data Factory], and click Create



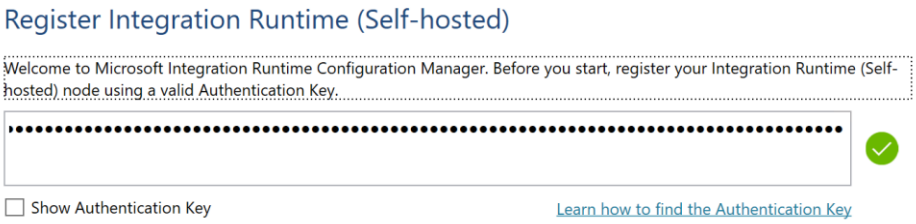
- Note below points during ADF creation:
  - Name: Have to be unique globally, time for creativity
  - Resource Group: up to you reuse or create new one, no dependencies
  - Version: always V2 please
  - Location: East Asia – This location is for orchestration and metadata only NOT compute, i.e. if your source and target is HK to HK, if your ADF is in Southeast Asia, then physically it is HK => HK, NOT HK => SG => HK.



In your ADF portal, click [Connections], tab [Integration Runtimes], [+New], create a new self-hosted IR.

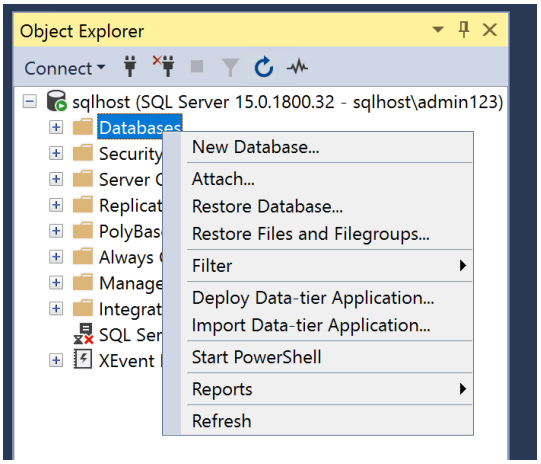


Copy one of the key and register.



Step 6: Restore DB backup as source data

Download the AdventureWOrks2017.bak from https://docs.microsoft.com/en-us/sql/samples/adventureworks-install-configure?view=sql-server-2017, then restore database as below:



In Security, ensure your user has permission to select on restored database.

Step 7: Exam different options of full output

Once the setup is done, you can try to export all data in csv to ADLSgen2 / export all data to SQL DW with table autocreation feature.