Lab 10: Scheduling your Pipelines with ADF

Technologies showcased: ADF GUI, Triggers

Summary

This tutorial walks through how to schedule a pipeline run from the Azure Data Factory GUI. We will be showing how to use the Schedule trigger which provides an interface for time-based scheduling of pipelines.

Note: This tutorial uses pipelines created from previous labs, but the steps could be followed for any pipeline.

In this lab we will:

* Rename our chained pipeline to be clearer in our scheduling and future monitoring (since it no longer just copies 1 thing)
* Create a new Schedule trigger

This lab will not cover tumbling window triggers, but they are available. This is the former time slice capability with Azure Data Factory and more info can be found at <https://docs.microsoft.com/en-us/rest/api/datafactory/triggers/createorupdate#definitions_tumblingwindowtrigger> (Description of tumbling window via REST API).

## Pre-requisites

* Azure Subscription with rights to use/deploy Azure services, and X of Azure credit
* Azure Data Factory
* Azure Data Factory Pipeline

## Scenario

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| Part 1 – Renaming our Pipeline | | |
| **Scenario** | | |
| In previous labs we created a series of chained pipelines via the Execute Pipeline activity to create a master pipeline that runs all of our activities. Since we want to schedule this pipeline we are going to rename it to represent what it is actually doing. | | |
| **Commentary / Notes** | **Click Steps & ‘Bits’** | **Screenshots** |
| We will be using the Azure Data Factory we created in Lab 01 called adflab-adf. | 1. Navigate to the Azure portal within your web browser and navigate to <https://portal.azure.com> 2. Open the Azure Data Factory blade [adflab-adf], pinned from a previous lab but if not navigate to it using the All Resources menu item. |  |
|  | 1. In the Overview blade you should see the following Quick Links: |  |
|  | 1. Click the Pipeline Editor button and you should see graphical user interface Overview page. |  |
|  | 1. Click the Pencil icon in the left menu to navigate to the pipeline editor screen. |  |
| This pipeline contains our chained pipelines from previous labs that will run all of our piplelines. We are renaming this to denote it’s the “master” pipeline that runs all of the DW Load processes. | 1. Click the S3 to Blob Copy pipeline. 2. Change the name to Master – Begin DW Load. 3. Click the Save icon. |  |

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| Part 2 – Scheduling our Pipeline | | |
| **Scenario** | | |
| We are now going to create a schedule based trigger for our master pipeline. | | |
| **Commentary / Notes** | **Click Steps & ‘Bits’** | **Screenshots** |
| We will be using the renamed pipeline Master – Begin DW Load we created in the previous section. | 1. Verify you are at the Master – Begin DW Load pipeline editor from the previous section. |  |
|  | 1. Click the Trigger Icon and New/Edit to create a new trigger. |  |
|  | 1. From the Choose Trigger dropdown choose +New to create a new trigger. |  |
| We are setting the hours to 30 minutes in the future to make sure we have enough time to monitor the pipeline run.  Note hours is in the 0-24 format and minutes 0-60. | 1. In the New Trigger properties pane fill out the following information: Name: Daily – DW Load Trigger Type: Schedule Recurrence: Daily, Every 1 Days Hours/Minutes: Set the hours to 30 minutes in the future. 2. Click Next. |  |
| Since we configured a parameter for our Send Email tasks we can specify this parameter in this screen. | 1. Fill out the recipient email with an email you want to receive the Success/Failure emails we setup on the S3 to Azure Blob Copy in Lab 3. 2. Click Finish. |  |
| We need to publish the trigger to make sure it’s available.  Depending on if you are using the VSTS or the built-in Data Factory code source you will need to click either Sync (VSTS) and then Publish or the Sync and Publish (ADF)  See the next lab module on how to monitor to see if your Trigger successfully fired and executed your pipeline(s). | 1. Click either Sync and then Publish (if on VSTS) or the Sync and Publish button (if on native ADF). |  |

**IMPORTANT: AVOID INCURRING EXTRA CHARGES BY PAUSING YOUR SUBSCRIPTION RESOURCES**