Azure SQL Databases Maintenance Using Azure Automation and PowerShell

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The following guide describes how to execute and schedule any T-SQL command for Each Azure SQL database inside a given Azure SQL Server.

Pre-requisites:

* an existing Azure subscription
* an existing Azure SQL Server and Azure SQL Database(s)

Let’s begin!

In your Microsoft Azure subscription, create a **new Automation Account**:

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Select your subscription, an existing Resource group (or create a new one if needed), Automation account name and Region.  
  
Then, click Review + Create:

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You should be directed to the resource’s deployment screen. Once completed, click **Go to resource**:

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This will direct you to your Automation account’s home page.

For future use in our PowerShell script and since we do not want our Server’s credentials to appear in clear text, our next step will the creation of a credential within the Automation account. This will hold the credentials (username and password) that we’d use for connecting to our SQL Server target.

From the leftmost pane, select **Credentials**, then **Add a credential**:

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Give your credential a meaningful name and enter the credentials. Then click **Create**:

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Next, you must add the **SqlServer** module. From the leftmost pane, select **Modules** and click **Add a module**:

Select the following options:

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From the gallery, choose the **SqlServer** module:

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Click **Select**, then add the Runtime version, and click **Import**:

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The import process may take a few minutes.

You now need to create a new Runbook. From the leftmost pane, select **Runbooks**, then **Create a new Runbook**:

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At the Runbook creation page, fill the fields as suggested below and click **Create**. The description field is optional.

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You will be directed to the Runbook edit page.

Copy and paste the PowerShell code into the code canvas, from the latest version in our Madeira Toolbox:

<https://github.com/MadeiraData/MadeiraToolbox/blob/master/Maintenance%20of%20Azure%20SQL%20Databases/ScriptForAzureAutomation.ps1>

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You may notice that the Azure SQL Server’s credentials are called in the PowerShell script using the Get-AutomationPSCredential CMDLET.

You may also notice that the table creation command is called using a URI from GitHub which contains the T-SQL command. You may replace the second $Query variable with a T-SQL command.

Click **Save** and **Publish**.

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You will be directed to the Runbook’s main page where you should check if it works as expected by running it manually. Click the **Start** button:

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In this use-case, your test table should be created in all Azure SQL Databases.

All that’s left to do is creating a schedule for your Runbook. From the Runbook’s main page, click on **Link to schedule**:

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Then, choose the **Schedule** option and add a schedule:

A picture containing table

Description automatically generated

Simply fill the fields and create the schedule.

That’s it! You’re done!