# Project Title: Data Engineering in Azure

Project Description: This script forms the basis of the Data Engineering in Azure Presentation and Demo sets

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Table of Contents

[Project Title: Data Engineering in Azure - 1 -](#_Toc29535955)

[Overview - 3 -](#_Toc29535956)

[Asset Listing - 4 -](#_Toc29535957)

[Required resources - 4 -](#_Toc29535958)

[Script and Actions - 6 -](#_Toc29535959)

[Introduction and Header Scene - 6 -](#_Toc29535960)

[Script and Actions - 7 -](#_Toc29535961)

[Scene 1 - 7 -](#_Toc29535962)

[Sample Script and Actions - 8 -](#_Toc29535963)

[Scene 1 - 8 -](#_Toc29535964)

# Overview

This set of demonstrations that help support the Data Engineering in Azure presentation. The following labs are included

1. Azure Data Factory import to Data Lake of SQL Server Data using an Sliding Window pattern.
2. Data Virtualization using SQL 2019
3. Azure Synapse External Tables

# Asset Listing

| Asset# | Asset File Name | Description | Length | Notes |
| --- | --- | --- | --- | --- |
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# Required resources

| Scene | Resource Name | Description | Notes |
| --- | --- | --- | --- |
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# Script and Actions

## Introduction and Header Scene

|  |  |
| --- | --- |
| Product: |  |
| Date: |  |
| Author: |  |

Purpose:

1. Introduce main controls
2. Show ways to navigate and find information

| # | Notes | Action on Screen | Audio |
| --- | --- | --- | --- |
|  |  | Start on the BING home screen | Good day. This is a quick walk through of Azure Mobile Services. This view will allow you to get a feel for creating a mobile service and connecting up a web page from the sample that is provided after the creation process is finished. |
|  |  | A screenshot of a computer  Description automatically generated | Our first step is to sign into your Azure Portal. I have an MSDN Ultimate subscription however your screen as you walk through may look a little different . |

# Script and Actions

## Scene 1

|  |  |
| --- | --- |
| Product: |  |
| Date: |  |
| Author: |  |

Purpose:

1. Introduce main controls
2. Show ways to navigate and find information

| # | Notes | Action on Screen | Audio |
| --- | --- | --- | --- |
|  |  | Start on the BING home screen | Good day. This is a quick walk through of Azure Mobile Services. This view will allow you to get a feel for creating a mobile service and connecting up a web page from the sample that is provided after the creation process is finished. |
|  |  | A screenshot of a computer  Description automatically generated | Our first step is to sign into your Azure Portal. I have an MSDN Ultimate subscription however your screen as you walk through may look a little different . |

# Sample Script and Actions

This script was used for a video tutorial backup for a demo.

## Scene 1

|  |  |
| --- | --- |
| Product: |  |
| Date: |  |
| Author: |  |

Purpose:

1. Introduce main controls
2. Show ways to navigate and find information

| # | Notes | Action on Screen | Audio |
| --- | --- | --- | --- |
|  |  | Start on the BING home screen | Good day. This is a quick walk through of Azure Mobile Services. This view will allow you to get a feel for creating a mobile service and connecting up a web page from the sample that is provided after the creation process is finished. |
|  |  |  | Our first step is to sign into your Azure Portal. I have an MSDN Ultimate subscription however your screen as you walk through may look a little different . |
|  |  | Zoom to screen location and highlight | On the menu bar on the left, you will see the various services available to you in Azure. We will concentrate on the Mobile Services.  Click on the mobile services tab, you will see all the mobile services that are currently setup. Yours might be empty, but any you create will display in the main window |
|  |  | Zoom to the screen size | It is important to note 3 of the columns on the screen. The Backend for this example will be Javascript as this will be an HTML5 application.  You can select either a .Net or Javascript backend, just that this example will be HTML5.  The Location will be the data centre closest to you.  The URL is important as this is the URL for you service. |
|  |  |  | At the bottom of the screen, you will see the NEW and Manage Keys.  The Manage keys is important, but will be assigned automatically when we create the service.  Lets start by clicking the “NEW” service |
|  |  |  | The next step in creating our service is fairly straight forward.  We select Compute, Movile Service, then Create.  This will start the multi step wizard. |
|  |  | Stoping Point? | Now we have to enter the first part of the url. What ever you select as your Something.azure-mobile.net has to be unique and will really become the name of your mobile service.  You have 3 selections in the drop down box for the database. If this is the first service you are creating, you can create a Free 20mb database. If not, you can use your existing SQL Database or create a new DB Instance.  Our example here will be to create a new database instance, but on a SQL Server I already have.    For my site, I will select Eastern US as my data center. Yours should be closer to you, or really your client activity.  Select your backend, Really, Javascript or .Net, we will use Javascript as our example. |
|  |  |  | For our example, I already have a DB Server setup, and have chosen to create a new db instance.  The Name will prepopulate with the name of the service url you created in the previous step with a \_DB attached to it.  We will select the server which will then ask me to log on.  We don’t have to, but we will select the advance setting just to take a look.  Lets move onto the next step |
|  |  |  | The advanced settings allow you to select the service tiers, size, collation and performance level.  The settings are beyond the quick walkthrough, however the MSDN site under mobile services has the explanations.  Click on the check mark to start the creation process. |
|  |  |  | The site will now be created. The status will change as the process goes on, however when “Ready” appears we will be ready for the next step. |
|  |  | Zoom in | Now that we have our service, click on the service name to bring up the details screen. |
|  |  |  | This is the main dashboard for the service. There are many features and setting available along the top screen. Hitting the “Cloud” will bring you back to this screen.  There are a number of platforms you can chose for your application. Since the RestAPIs are created, you can use any of the platforms listed for you application. We will use the “HTML/JavaScript” for our example.  Make sure the “HTML/JavaScript” is selected, and under the Get Started, click on the Create a New HTML APP. |
|  |  |  | There are 3 selections.  We first need to create the table to house our sample data.    We then download the application it will prompt us to save the application. This will save to the download directory.    Lets select the Configure a list of host names. |
|  |  |  | This is mainly so that the site will accept requests from the domain your application is running from. The list already has the LocalHost setup as this is where the site sample code will run from. |
|  |  |  | Now that we have everything ready, lets unzip the download file. |
|  |  |  | Once downloaded, going into the server directory will list the files that get the IIS Server running on this local machine.  There are other files that will do the same on Linux and the MAC. Depending on what machine you are on, start the server.  Note that this cannot be started from a file share. |
|  |  |  | We now have IIS Express running. Open up a browser and open the pate http://localhost:8080 |
|  |  |  | This will bring up the mobile service.  Add in some tasks,  Close it, then open, they are still there. |
|  |  |  | We have used the Mobile Service wizards to create our RestApi services, and downloaded the sample code and have our local server communicating and writing our data to our new services.  I encourage you to find out more at  http://azure.microsoft.com/en-us/documentation/services/mobile-services/ |
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