Real-Time Big Data and IoT Processing with Azure

Setup Guide

Overview

This course describes the technologies and techniques required to build low-latency Big Data and real-time Internet-of-Things (IoT) solutions on the Microsoft Azure platform. To complete the hands-on elements of this course, you will need to prepare a suitable lab environment, as described in this document.

What You'll Need

- A Microsoft account
- A Microsoft Azure subscription
- A Microsoft Windows, Apple Macintosh, or Linux computer with the following software installed:
  - Node.JS
  - Azure Storage Explorer

Create an Azure Subscription

Note: If you already have a Microsoft Azure subscription, you can skip this section.

If you have never had an Azure subscription, you can create a 30-day free trial subscription, which includes enough free credit in your local currency to complete the labs. You will need to provide a valid credit card number for verification, but you will not be charged for Azure services – for more information, see the frequently asked questions in the Azure sign-up page.

If you have previously had a free trial subscription that has now expired, you will <u>not</u> be able to sign up for a second free trial. In this case, you must sign up for a pay-as-you-go subscription. The lab instructions in this course are designed to minimize the cost of the Azure resources required to complete the hands-on exercises.

To set up a free trial subscription:

1. If you already have a Microsoft account that has <u>not</u> already been used to sign up for a free Azure trial subscription, you're ready to get started. If not, don't worry, just create a new Microsoft account at https://signup.live.com.

2. After you've created a Microsoft account, browse to https://azure.microsoft.com/en-us/free/ and click the **Free Trial** link. Then follow the instructions to sign up for a free trial subscription to Microsoft Azure. You'll need to sign-in with your Microsoft account if you're not already signed in. Then you'll need to:
   a. Enter your cellphone number and have Microsoft send you a text message to verify your identity.
   b. Enter the code you have been sent to verify it.
   c. Provide valid payment details – don't worry, your credit card won't be charged for any services you use during the trial period, and the account is automatically deactivated at the end of the trial period unless you explicitly decide to keep it active.

Install Node.JS

The labs in this course use Node.JS JavaScript code to simulate devices that emit real-time data streams. To run these scripts, you must have Node.JS installed.

1. Browse to https://nodejs.org/en/download/ and follow the instructions to download and install the latest version of Node.js for your operating system (Windows, OSX, or Linux) and architecture (64-bit or 32-bit).

Install Azure Storage Explorer

You will be working with Azure blob storage in this course. You can use any Azure storage client to upload and download files to Azure. If you do not already have an Azure storage client installed, you can install Azure Storage Explorer, which is available for Windows, Mac OSX, and Linux.

1. Browse to http://storageexplorer.com/ and follow the instructions to download and install the latest version of Azure Storage Explorer for your operating system (Windows, Mac OSX, or Linux).

Install the Lab Files

To complete the labs in this course, you will need to download and extract the lab files from the course GitHub repository.

1. Download the lab files zip archive from https://github.com/MicrosoftLearning/Real-Time-Big-Data-and-IoT-Processing-with-Azure/raw/master/RealTimeAzure.zip.
2. Extract the lab files to a folder on your computer.