**Objective**: In week 3, we used MariaDB natively on the Raspberry Pi to collect sensor data. Luckily, Azure has a database server specifically for MariaDB in the cloud as well. We are going to re-build the dataset in the cloud and visualize it using PowerBI.

**Required Setup**: Week 3 lab.

**Parts:**

* RPi 3 B
* GrovePi+ board
* Two Grove connection wires
* 1 x Grove Temperature and Humidity Sensor
* 1 x Grove LCD RGB Backlight v2.0

**Part 1: Set up a mariaDB on Azure**

**Step 1.** Sign into the Azure portal using <https://portal.azure.com/#home>. You should see your dashboard.

**Step 2.** Click on ‘+Create a resource’ in the main navigation menu. In the search box, type ‘Azure Database for MariaDB’, find the service and click on ‘Create’ at the bottom.

**Step 3.** For ‘server name’, enter any name which is globally unique(Try testserver001, mytestserver01, , …). Choose ‘test-group’ for ‘Resource group’ which was created in the previous lab. Type ‘myadmin’ for ‘Server admin login name’. Pick any password you want and make sure memorizing them. For ‘Pricing tier’, click on it, you should see the image like following. Choose the ‘Basic Pricing tier’, change the Storage to the minimum(5 GB) and leave other settings as default. The monthly cost should be 66.32 USD. Don’t worry about it. Since we are using Free Trial, we have free 200 credits to spend. Click on ‘OK’, then ‘Create’. The deployment will take a while.

Step 4.

Step 5.