Losant Dashboard

A. Set up ESP8266 to connect with Losant and transmit data – this is data source

1. create new device:

refer to LessonTwo

my example is HW-ESP8266-01
Make sure the DHT22 is connected as in Lesson Three

2. Download access keys

place access keys and Router information into the source code

3. Compile ESP8266 code and upload to device

Link to code:
http://web.eng.fiu.edu/watsonh/eel4730/MQTT/sketch_LosantTempHumidV01.ino

Serial Console output

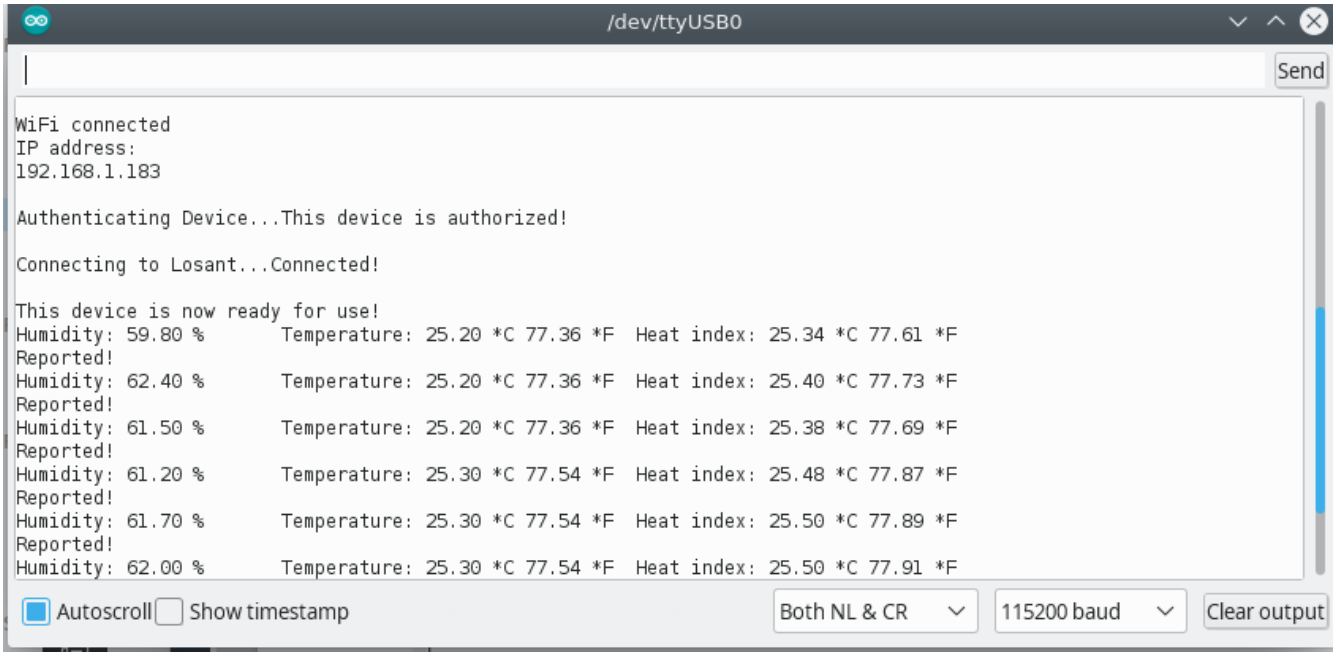

Figure 1: Serial Console output

B. Set up Losant Device, and Application

Reference material – Losant Walkthrough

Losant Walkthrough <<<<<<<<<<<<< Use this along with this document
https://docs.losant.com/getting-started/walkthrough/

Step 1.

The Walkthrough uses Dark Sky for data source – you can do this to get comfortable with the process if you wish.

The Data Source we are going to use is the ESP8266 Board with the DHT22 connected.

Step 2.

Create the Losant Application – my case is MyRam in MySandbox.

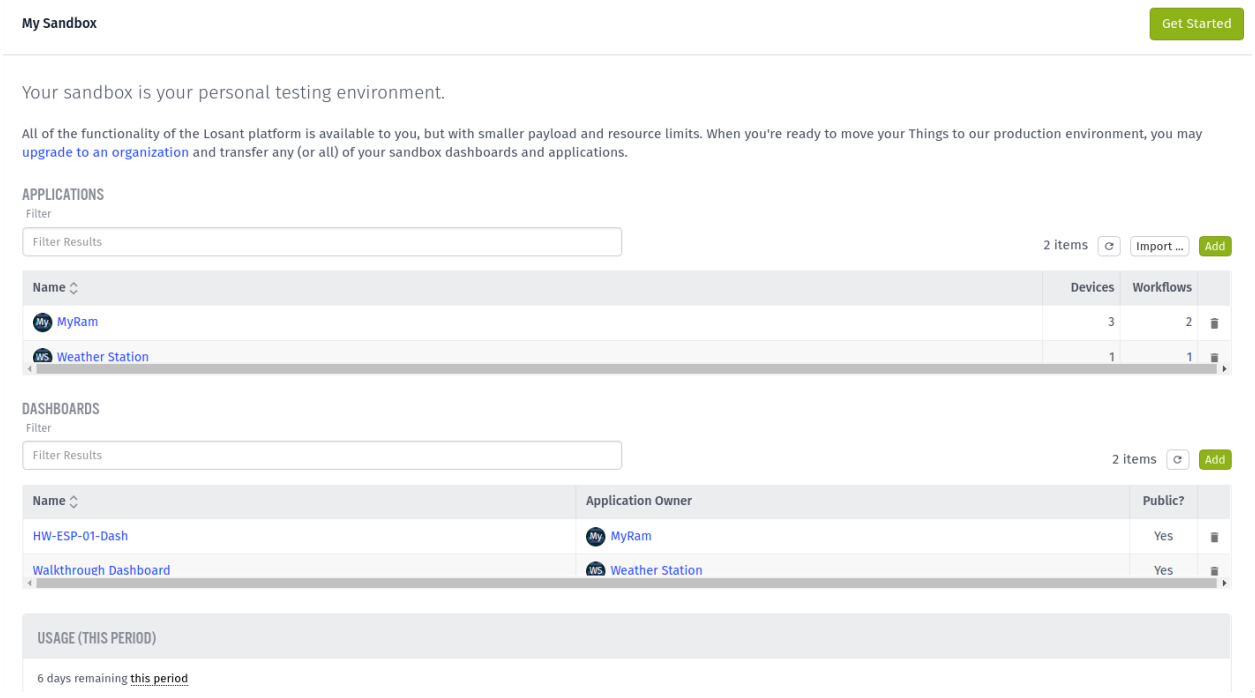

Figure 2: Losant Application - MyRam

Step 3-A.

Add the Device to the Application – my device is HW-ESP8266-01
When creating the device, make sure `Standalone` is selected as the device type.

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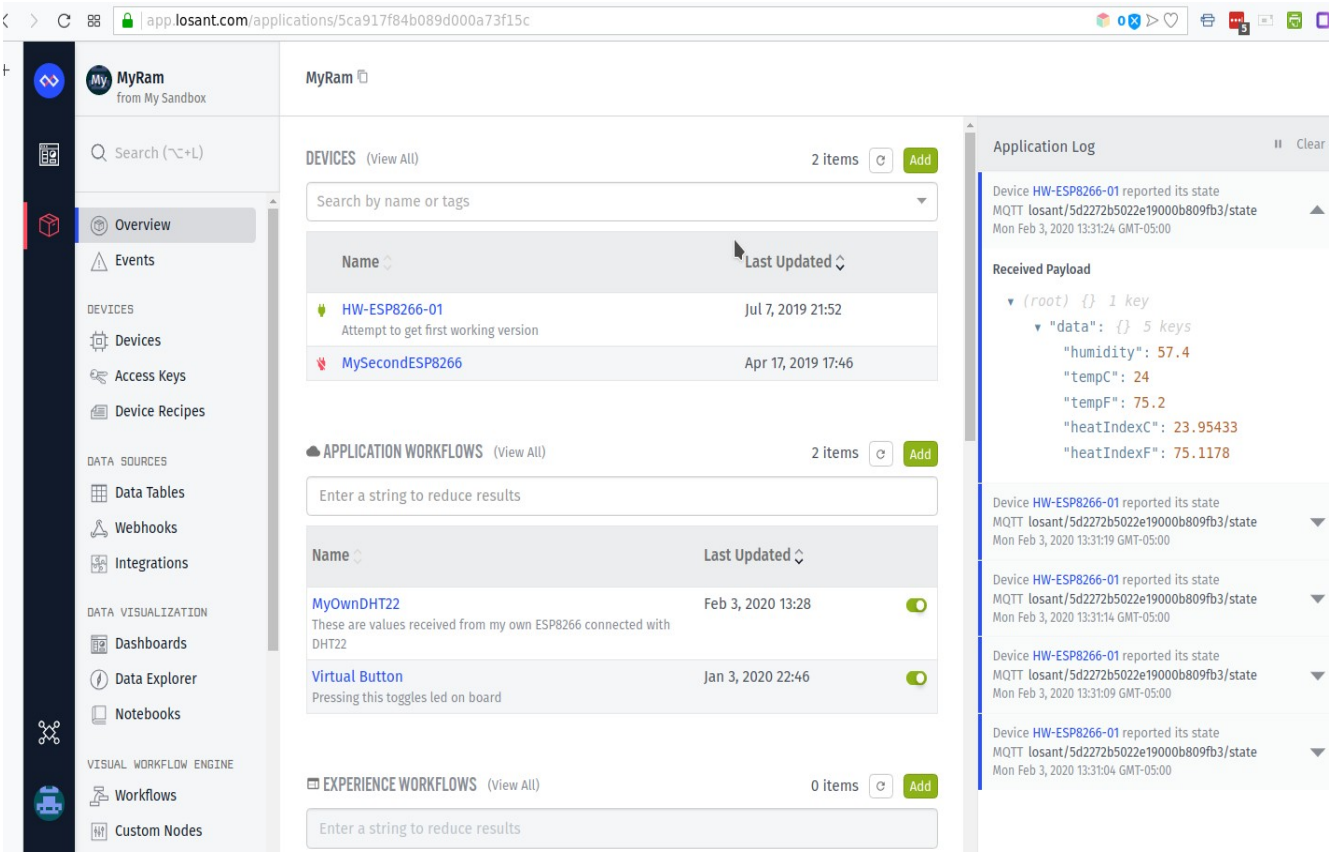

Figure 3: Add Device

Step 3-B. Configure Device Attributes

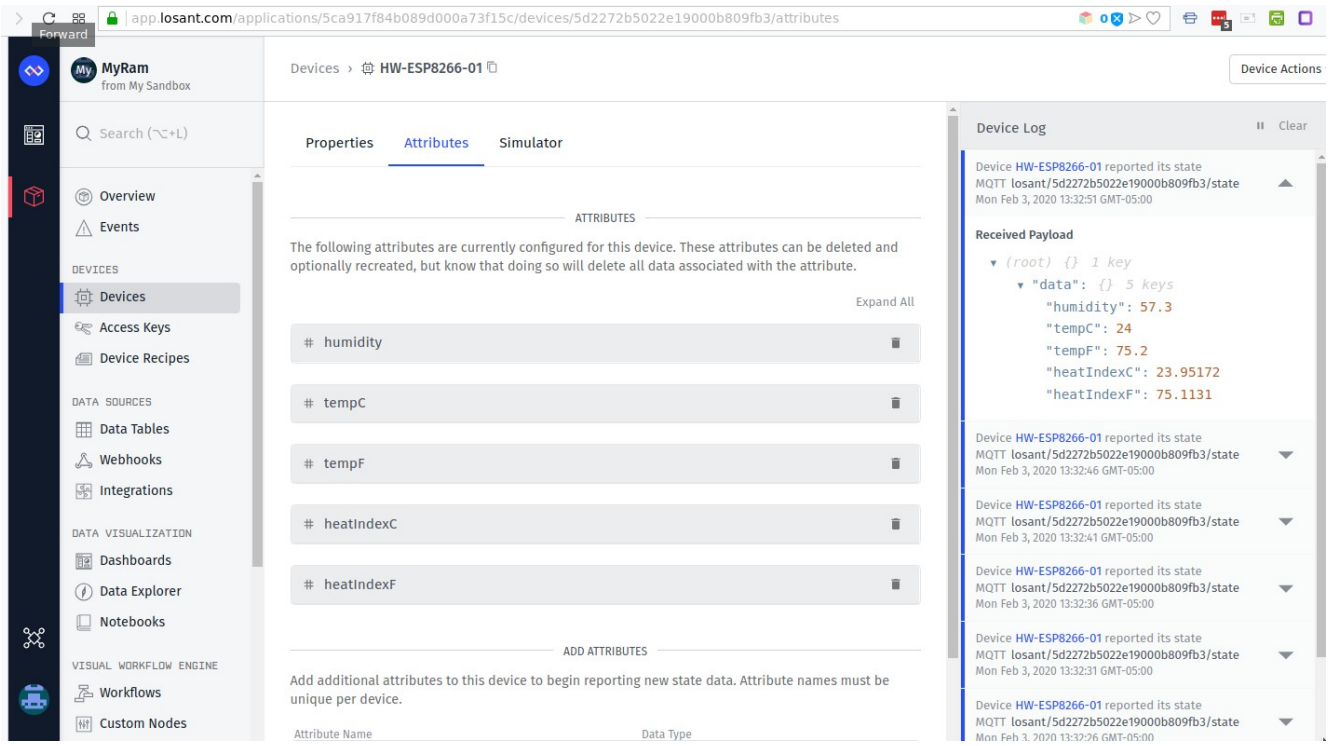

Figure 4: Device Attributes - Data Received

Add the Attributes which come from the HW-ESP8266-01
All are number category

- humidity
- tempC
- tempF
- heatindexC
- heatindexF

Once all the attributes are properly defined, click the `Update Attributes` button at the bottom of the page.

The device log should now show the information coming in from the Device. With this setup, the Device is spontaneously sending data, so

Step 4

- Requesting Weather Data is not needed. Weather data is coming from the NodeMCU

Data should show up on the Device Log as shown above.

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STEP 5:

SAVE WEATHER DATA TO DEVICE – same, the data is already stored with the device since it is being sent from the external device NodeMCU

It should appear in the Device Log and be updated every 5 seconds with received data. Figure 4Device Attributes - Data Received

C. Set up Dashboard

Step 6.

Create a Dashboard

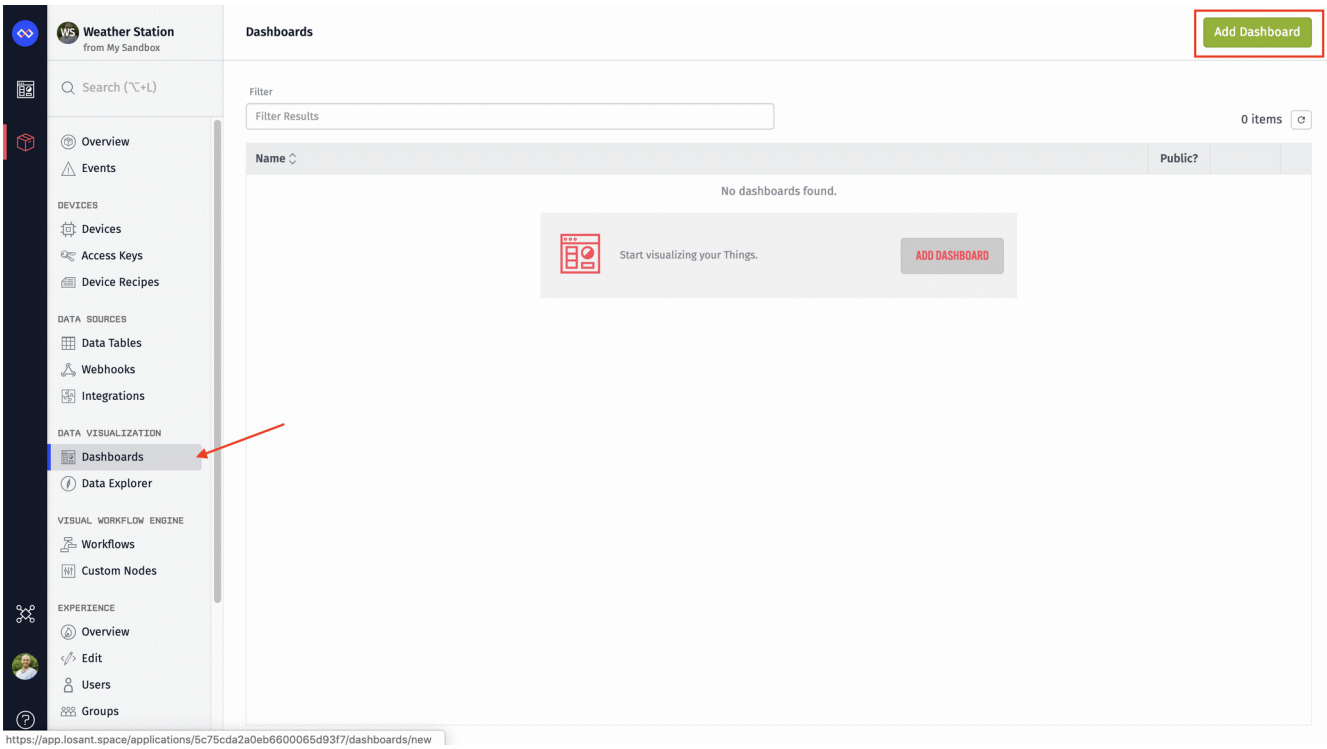

Figure 5: Add Dashboard

Created dash board

Losant Dashboard

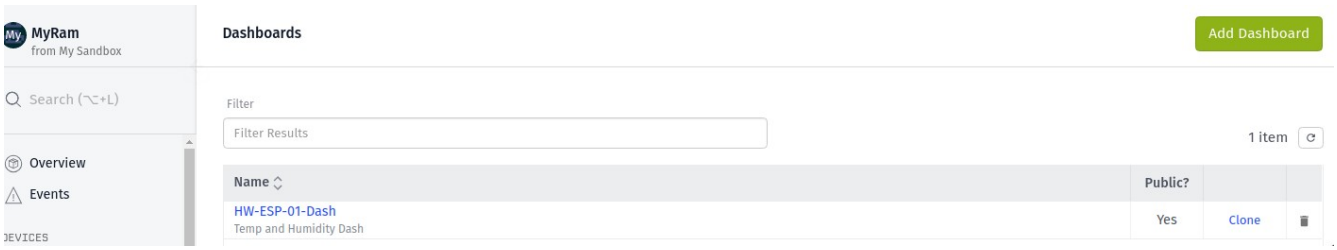

Figure 6: Dashboard Overview

Add the Blocks

The first block to add is a simple Gauge Block to show the current temperature.

Then continue to add Gauge Block for current humidity.

Then add Time Series graphs for temp and humidity.

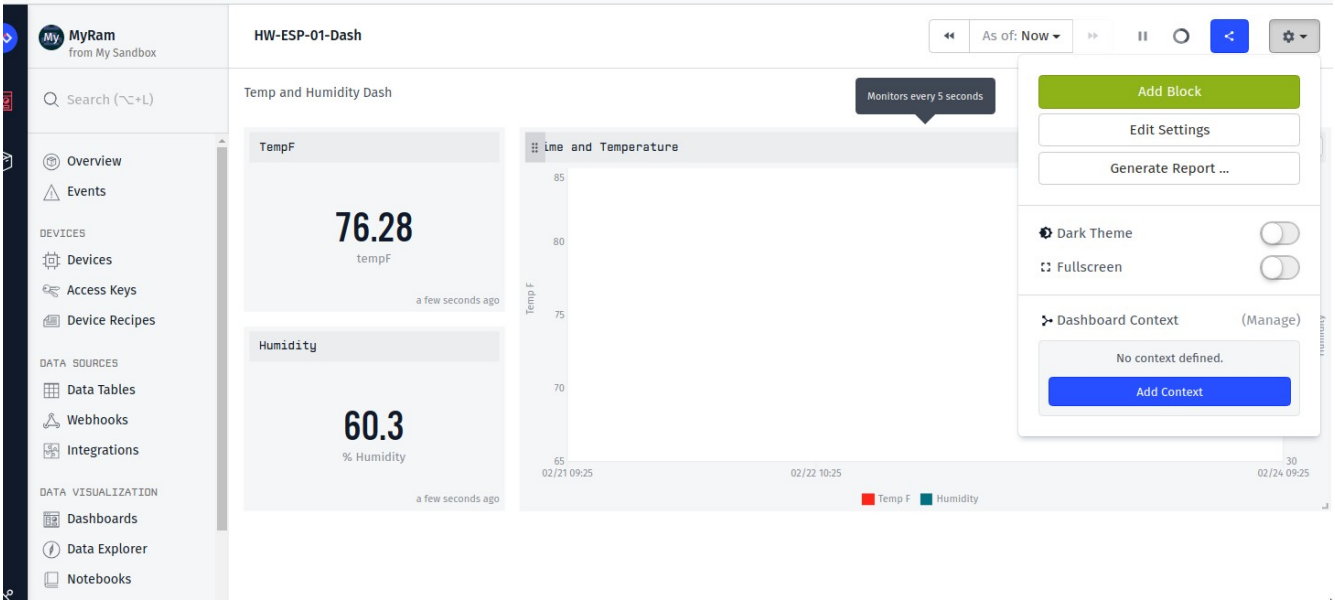

Figure 7: Settings - Add Block

‘Add Block’ menu option – pick block to add – this example either Gauge or Time Series Graph

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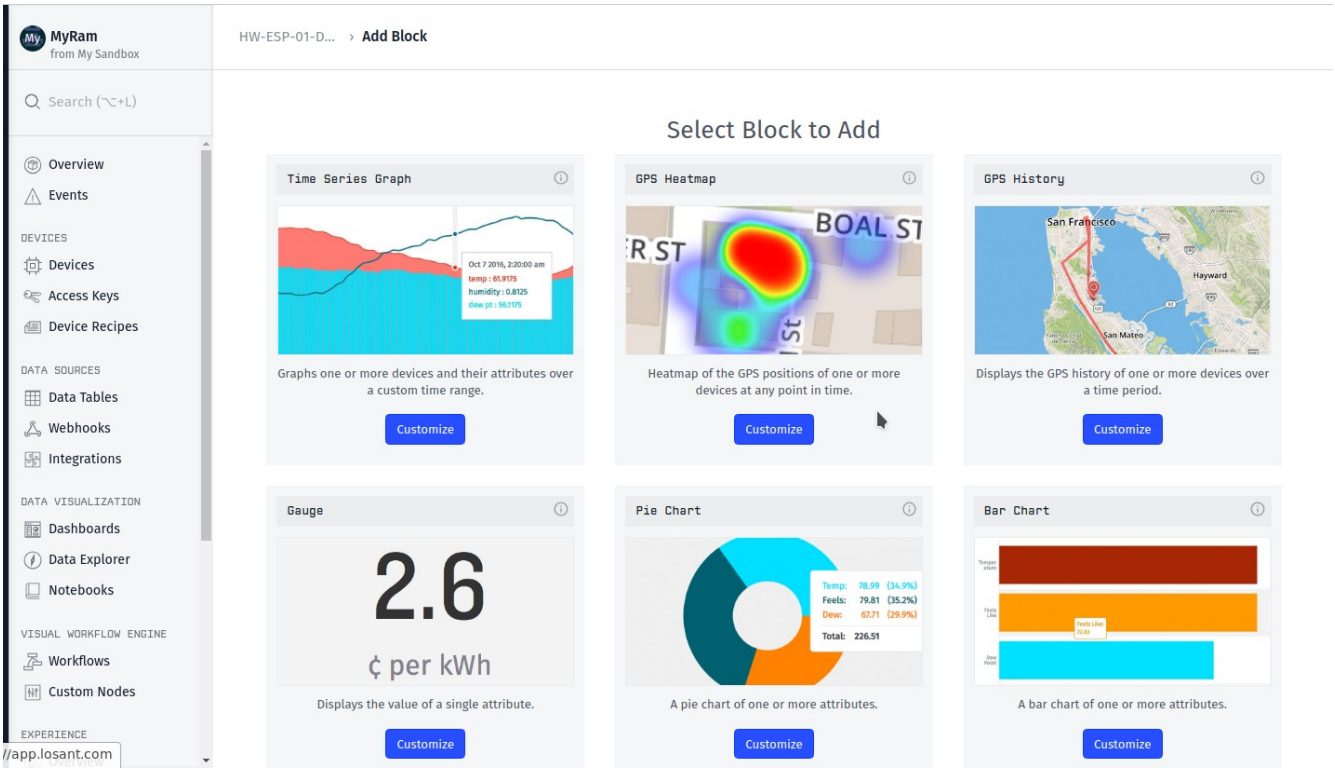

Figure 8: Select Block Type

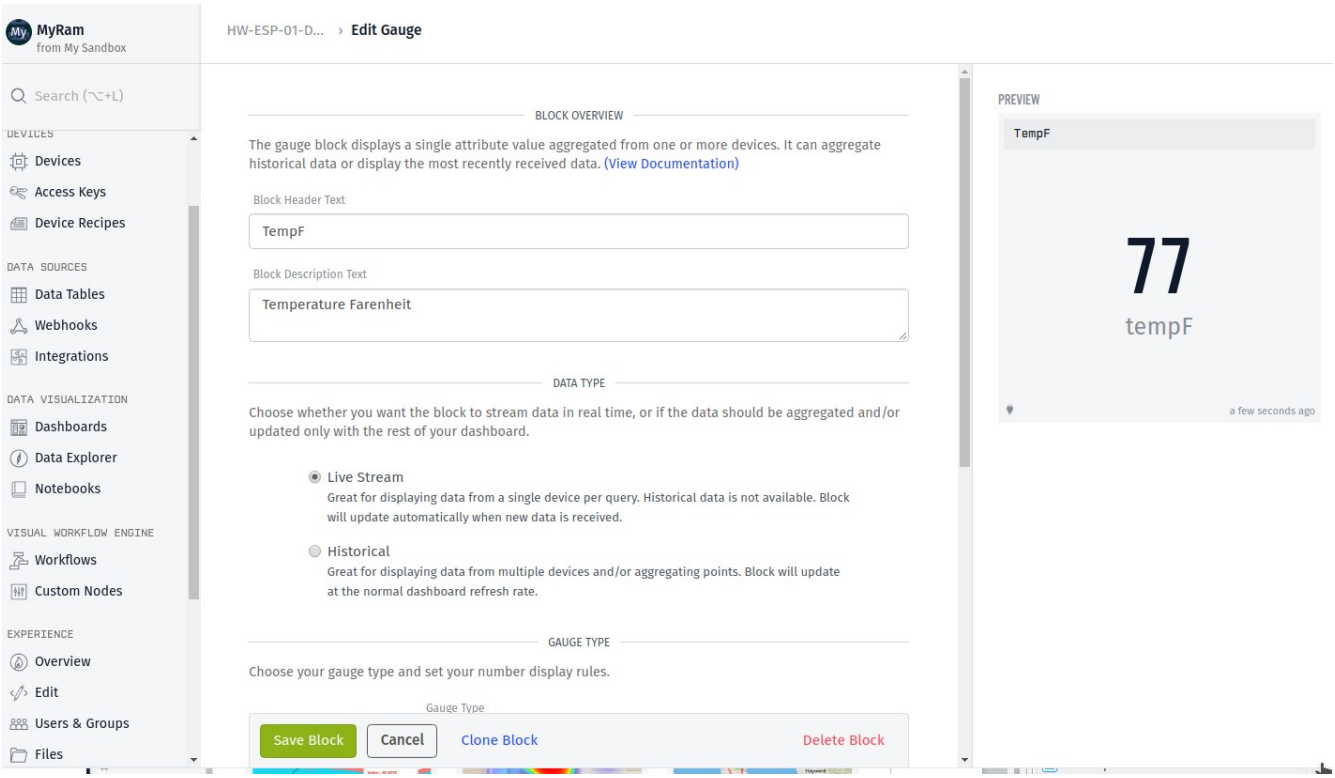

Figure 9: Edit Gauge Settings - Title

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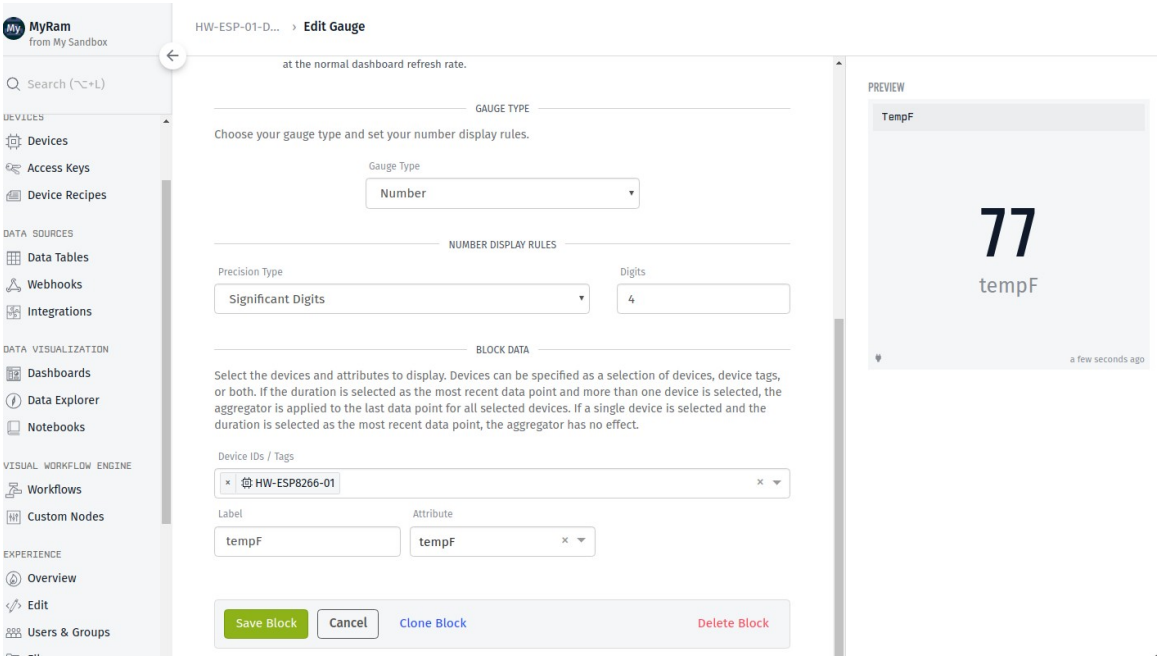

Figure 10: Edit Gauge Settings - Block Data - numeric

Finish:

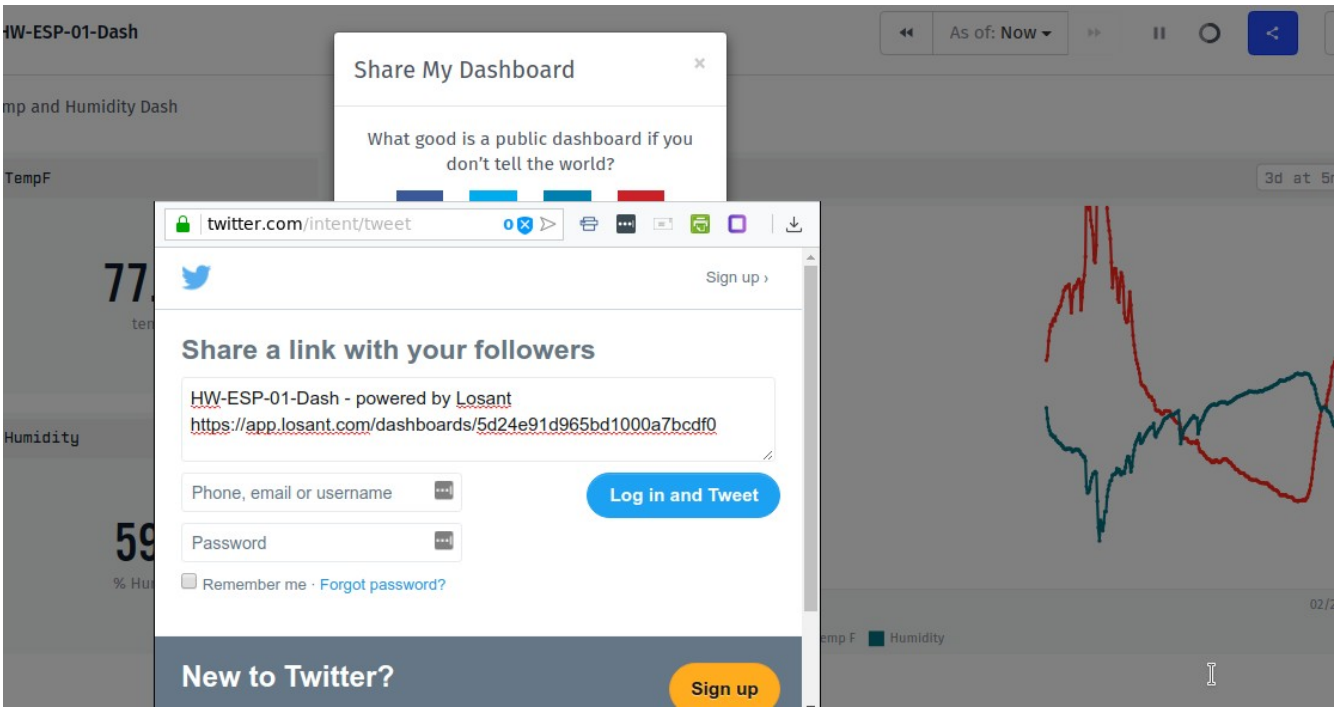

Figure 11: Share Dashboard - link

Losant Dashboard

Turn in the following items:
1. Take a screen shot of your trends plus the browser and background screen including the time and date.
2. A copy of the link to your dashboard even if you do not leave your device connected beyond the project.
3. Also take a screen shot of Figure 4: Device Attributes - Data Received

Figure 12: Screen Shot of Dashboard with Data – Also capture the System Calendar time and date