



Retrieve Sensor Measures from SAP Cloud Platform IoT 4.0 Service

What will you need:

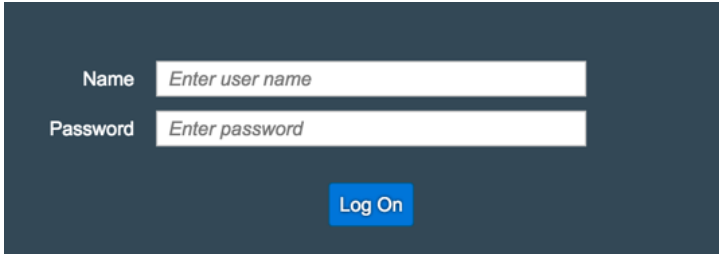
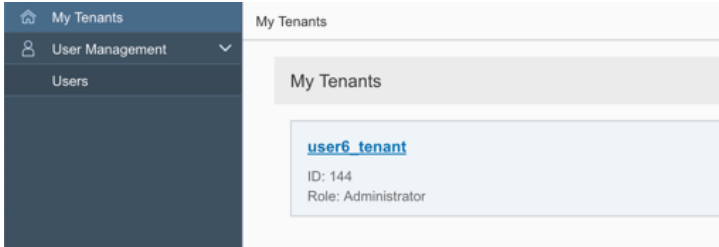
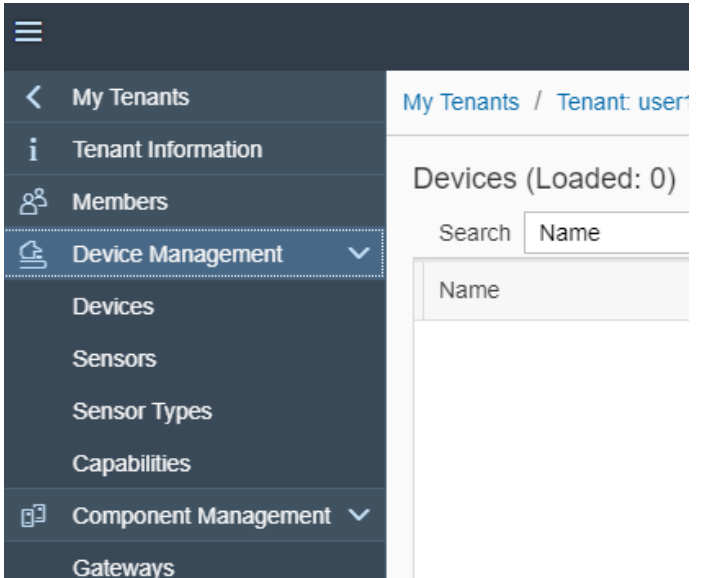
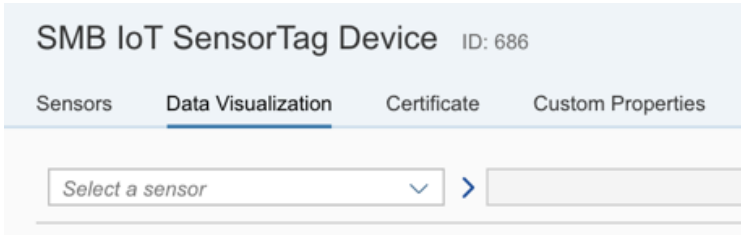
1. SAP Cloud Platform IoT 4.0 Service Demo Tenant
(contact your instructor if you do not have one)
 - a. Tenant URL
 - b. User and Password
2. Texas Instrument SensorTag CC2650STK
 - a. A physical SensorTag device
 - b. DeviceID of the sensor as defined in the corresponding IoT tenant

As of February, 2019

View Real-time Measures in IoT Service Cockpit

The SAP Leonardo IoT Service allows you to visualize the representation of your sensor as well as the registered measures in its Cockpit.

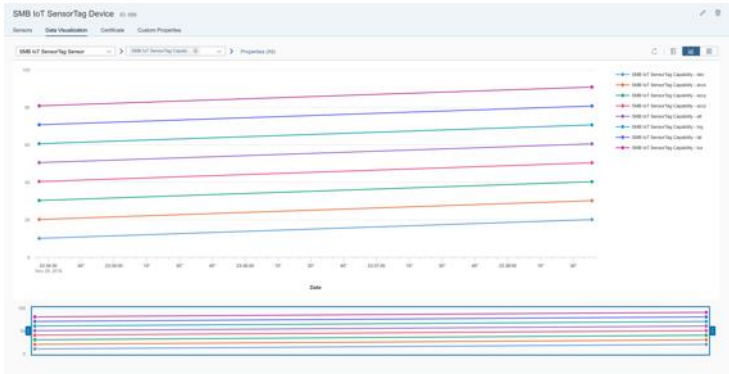
Follow the instructions here below to see how to access the cockpit and visualize the data.

Explanation	Screenshot
<p>Log on to the Internet of Things Service Cockpit.</p> <p>[IOT_INSTANCE_URL]</p> <p>Enter the provided user name and password.</p> <p>Press Log On.</p> <p>USER: [USER] Password: [PASSWORD]</p> <p>Your user is already assigned to a tenant and has the role administrator.</p> <p>Click into your Tenant.</p>	 
<p>Select the Device Management -> Devices menu.</p>	
<p>Select your device.</p>	
<p>Choose the Data Visualization tab.</p>	

Select “SMB IoT SensorTag Sensor” as **sensor** from the dropdown box.

Select the “SMB IoT SensorTag Capability” as **capability** from the dropdown box.

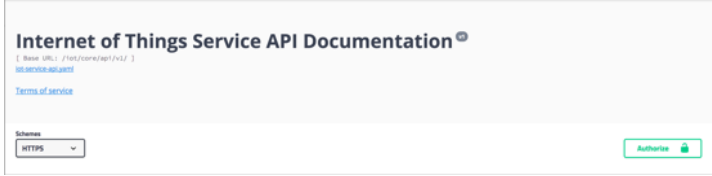
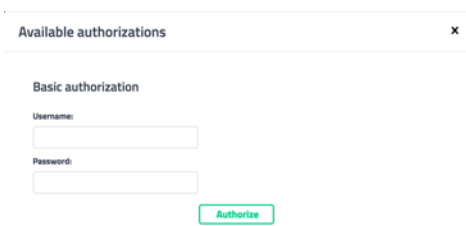
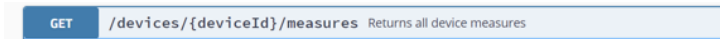
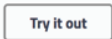
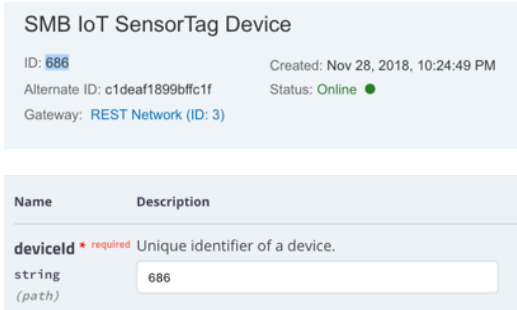

Select for example the property “Humidity” as **property**.



The values will be displayed in a line chart.

Retrieve Measures using the API documentation URL

The **Internet of Things API Documentation** provides all details about the available APIs. The documentation also allows you to run the different APIs against your own IoT tenant and devices. Follow the instructions here below to see how to access the Internet of Things API Documentation and how to run the different APIs.


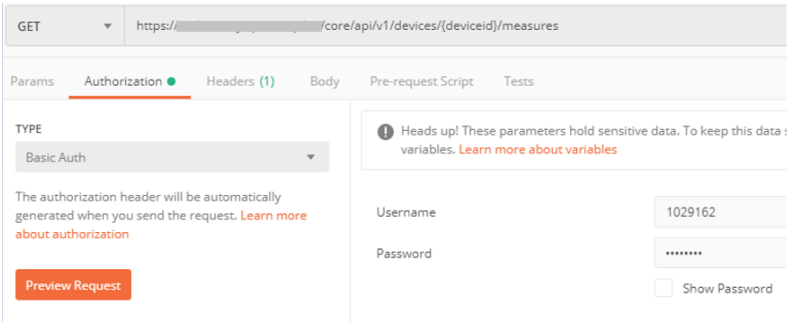
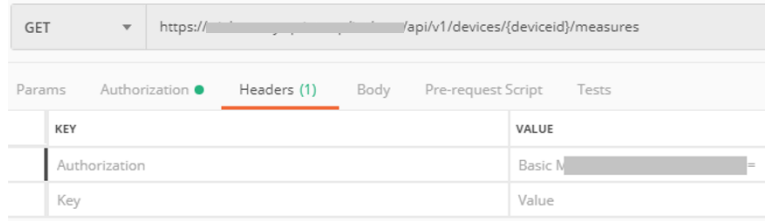
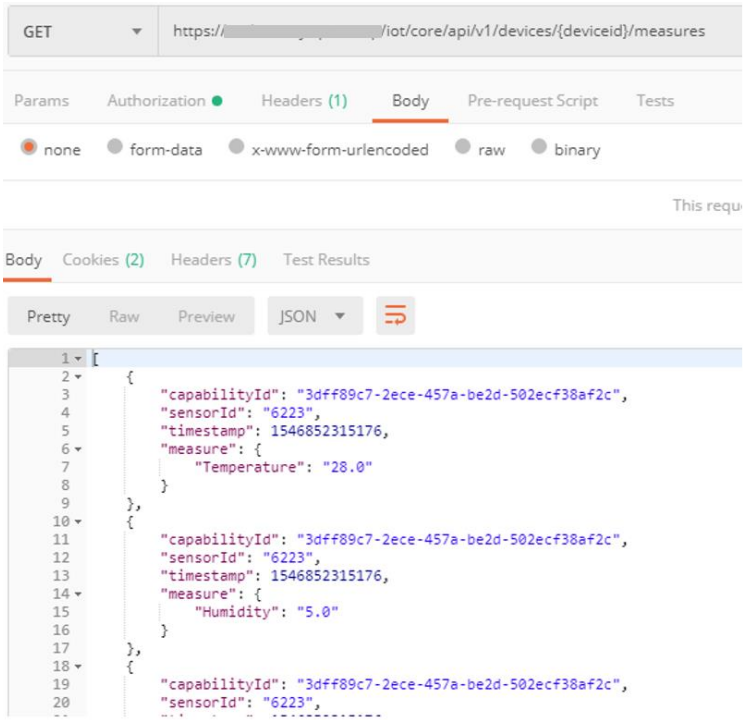
Explanation	Screenshot
Open the Internet of Things API Documentation and choose Authorize . <code>[IOT_INSTANCE_URL]/iot/core/api/v1/doc/</code>	
Enter your user name and password and choose Authorize to logon.	
Choose the GET request entry /devices/{deviceId}/measures (Reads device measures).	
Choose Try it out .	
Enter the Device id associated to your sensor as deviceId (not the Device Alternate ID)	
Choose Execute .	

Scroll down to the response body to see the measures.

Server response	
Code	Details
200	<div>Response body</div> <pre>{ "capabilityId": "605c59f6-5991-45ff-959e-ebb14bb84685", "sensorId": "1563", "timestamp": 1543428265916, "measure": { "dev": "10.1" } }, { "capabilityId": "605c59f6-5991-45ff-959e-ebb14bb84685", "sensorId": "1563", "timestamp": 1543428265916, "measure": { "accx": "20.2" } }, { "capabilityId": "605c59f6-5991-45ff-959e-ebb14bb84685", "sensorId": "1563", "timestamp": 1543428265916, "measure": { "accy": "30.3" } }, { "capabilityId": "605c59f6-5991-45ff-959e-ebb14bb84685", "sensorId": "1563", "timestamp": 1543428265916, "measure": { "accz": "40.4" } }, { "capabilityId": "605c59f6-5991-45ff-959e-ebb14bb84685", "sensorId": "1563", "timestamp": 1543428265916, "measure": { "alt": "50.5" } }],</pre>

Retrieve Measures using the API via Postman

We provide here some instructions how to retrieve your sensor measures with an API testing tool like Postman. You can use this tool as a practice for knowing which parameters need to be set up in your application to retrieve the measures. Download the [postman collection](#) to run it directly from your machine.

Explanation	Screenshot
<p>Enter the following URL and replace the "{deviceid}" tag by your Device ID.</p> <p>[IOT_INSTANCE_URL]/iot/core/api/v1/devices/{deviceid}/measures</p>	
<p>Go to the Authorization tab.</p> <p>Select the type Basic Auth.</p> <p>Enter your IoT Username and Password.</p> <p>Press Preview Request to see the Authentication to the request Header.</p>	
<p>Check the Header contains the Authorization Key with Value Basic and your encrypted credentials.</p>	
<p>Send the request and you will get all the measures for your specific device id.</p>	

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