



Retrieve Sensor Measures from SAP Cloud Platform IoT 4.0 Service

What will you need:

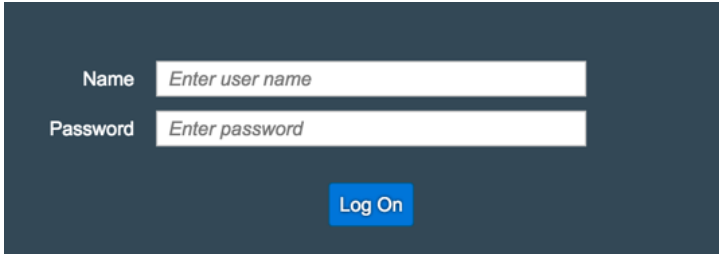
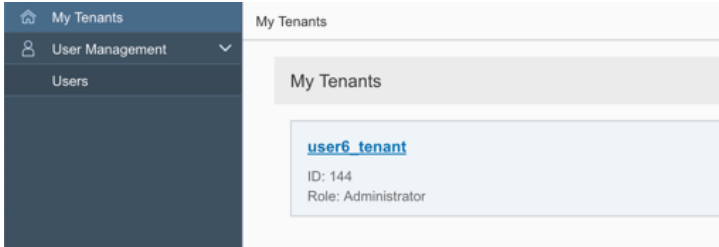
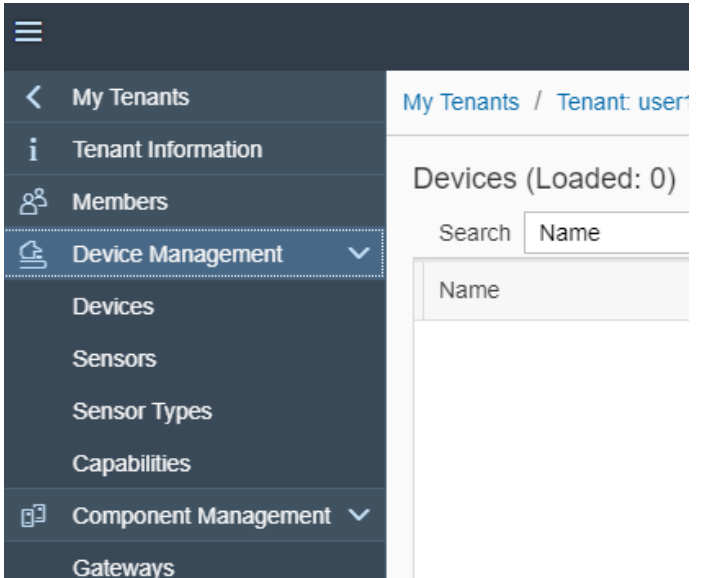
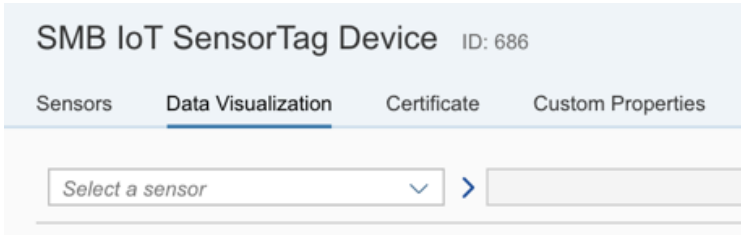
1. SAP Cloud Platform IoT 4.0 Service Demo Tenant
(contact your instructor if you do not have one)
 - a. Tenant URL
 - b. User and Password
2. Texas Instrument SensorTag CC2650STK
 - a. A physical SensorTag device
 - b. DeviceID of the sensor as defined in the corresponding IoT tenant

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.

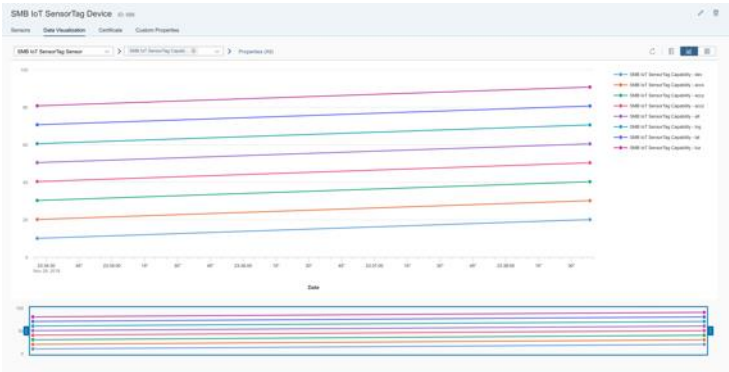
Follow the instructions here below to see how to access the cockpit and visualize the data.

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.

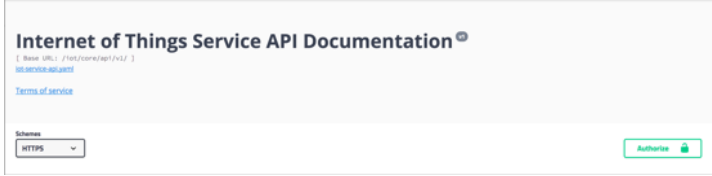
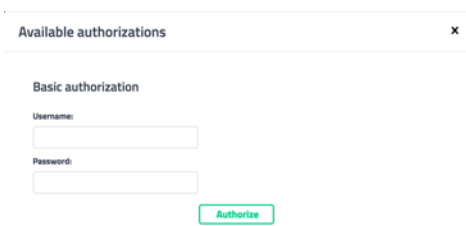
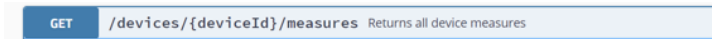
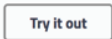
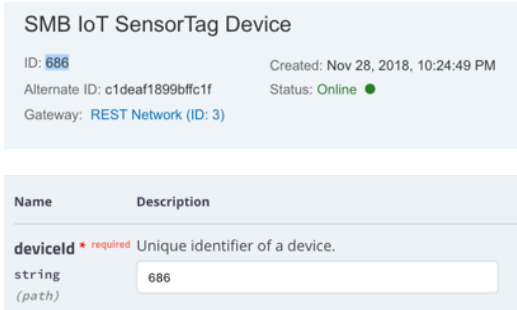

Select for example the property “Humidity” as **property**.



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 .	


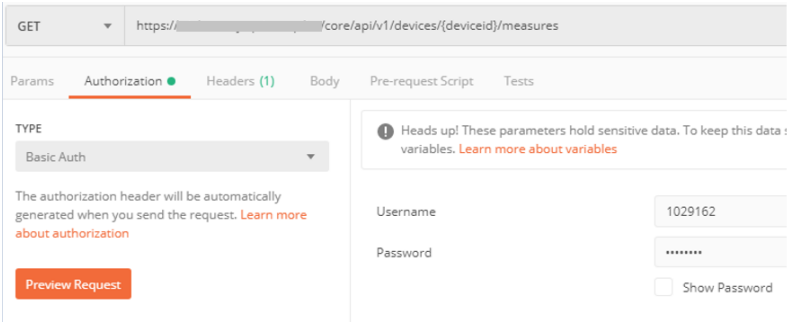
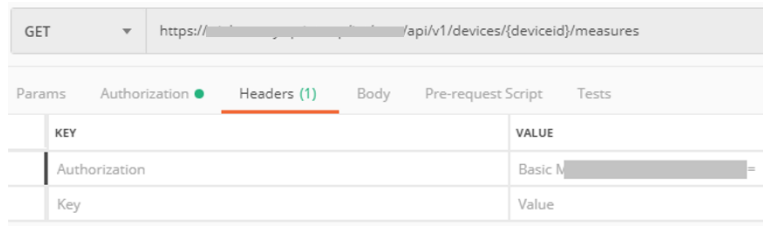
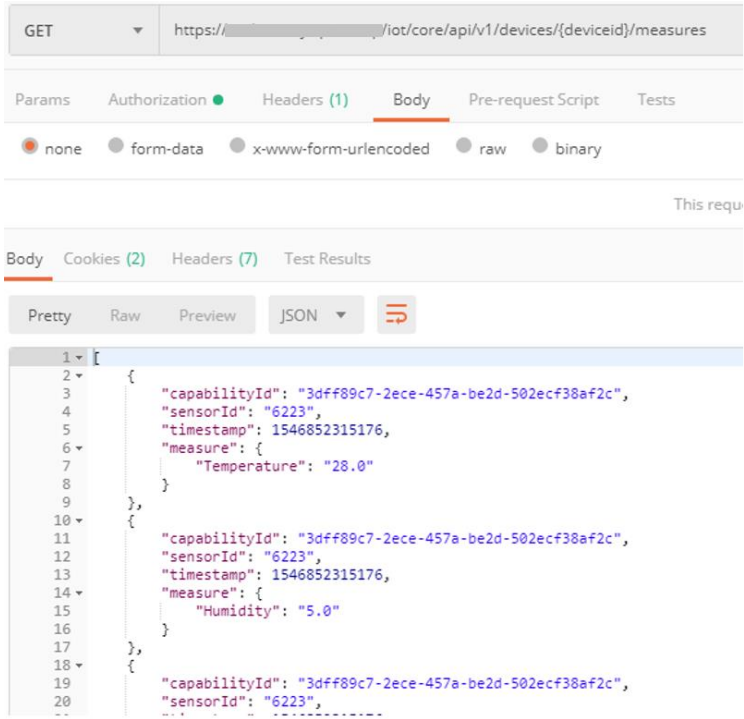
Scroll down to the response body to see the measures.

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.

Please check also the GitHub repository to get this measures API as well as other APIs available in your IoT tenant.

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

www.sap.com/contactsap

© 2017 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, and they should not be relied upon in making purchasing decisions.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. See <http://www.sap.com/corporate-en/legal/copyright/index.epx> for additional trademark information and notices.

