**Retrieve Sensor Measures from SAP Cloud Platform IoT 4.0 Service**

What will you need:

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

As of 19 January, 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** |
| --- | --- |
| Log on to the **Internet of Things Service Cockpit**.  [IOT\_INSTANCE\_URL]  Enter the provided **user** **name** and **password.**  Press **Log On**.  USER: [USER]  Password: [PASSWORD]  Your user is already assigned to a tenant and has the role **administrator**.  **Click** into your Tenant. | ../../../../../Desktop/Screen%20Shot%202017-08-25%20at%2008.5 |
| Use the main menu to navigate to the **Devices** section. |  |
| Choose the device name **XYZ associated to your device** (SMB IoT SensorTag Device). |  |
| Choose the **Data Visualization** section**.** |  |

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| --- | --- |
| 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.**  [IOT\_INSTANCE\_URL]/iot/core/api/v1/doc/ |  |
| 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**. | ../../../../../Desktop/Screen%20Shot%202017-09-06%20at%2016.2 |
| Enter the **Device id** associated to your sensor as **deviceId** (**not** the Device Alternate ID) |  |
| Choose **Execute**. |  |
| Scroll down to the response body to thee the measures. |  |

## 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.

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| **Explanation** | **Screenshot** |
| Enter the following URL and replace the “{deviceid}” tag by your Device ID**.**  [IOT\_INSTANCE\_URL]/iot/core/api/v1/devices/{deviceid}/measures |  |
| 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. |  |
| Just send the request and you will get all the measures for your specific device id. |  |