**SAP Leonardo Machine Learning Foundation**

Version 1.0

**Part 2- Executing a pre trained model in SAP Leonardo**

**Objective**:

In this Hands On exercise we shall see how to configure Postman and execute a pre trained model API from SAP Leonardo (Image Classifier). By the end of this exercise we will know how to use the service key generated in the Previous step (Part 1), also how to execute and incorporate a simple API provided by SAP Leonardo.

This Document can be divided into three parts:

1. Configuring Postman
2. Setup an ML Environment in Postman
3. Execute the Image Classifier API from SAP Leonardo

**Pre-requisite:**

* Intended audience are expected to complete the part 1 of the Hands on document (We would need the service key).
* The audience should have a basic understanding of how HTTP “GET” and “Post” methods work.
* A little understanding of JSON would be helpful as the output we get will be in JSON format, although it is not compulsory to understand.

# Configure Postman

|  |  |  |
| --- | --- | --- |
| Click on this link to get Postman Extension on **Chrome**  https://chrome.google.com/webstore/detail/postman/fhbjgbiflinjbdggehcddcbncdddomop?hl=en | D:\Users\Default User\Documents\My Received Files\2002D594.PNG |  |
| Click on “**Add to Chrome**”.  In the popup click on “Add APP”  Click on “**Launch app**”  Or navigate to “chrome://apps” and click on “Postman”  It will prompt to download the native app as the chrome plugin is depreciated, But for us it’s fine to skip this. |  |  |

# Setup Environment for SAP ML

|  |  |  |
| --- | --- | --- |
| In the top right corner click on “**Settings**” Saw blade icon -> “**Manage Environments**” |  |  |
| Click on “Add”. |  |  |
| Name the Environment – “**SCP\_ML\_FOUNDATION**”.  Enter the following “**key**” “**value**” pair from the Service key generated from Part 1. |  |  |

|  |  |
| --- | --- |
| **Key** | **Value** |
| token |  |
| clientid | <client id from the service key> |
| appname | <app name from the service key> |
| identityzone | <identity zone from the service key> |
| identityzoneid | <identity zone id from the service key> |
| clientsecret | <client secret from the service key> |
| tenant\_id | <SAP CP subaccount name> |

* 1. . Generating OAuth Token (access\_token)

|  |  |  |
| --- | --- | --- |
| Enter the following URL in the address bar –  https://{{tenant\_id}}.authentication.eu10.hana.ondemand.com/oauth/token?grant\_type=client\_credentials  Select the HTTP request as “**GET**” |  |  |
| In “**Authorization**” tab give the Authorization “**Type**” as “**Basic Auth**”.  Enter :  “username” -> “clientid” from service key.  “password” -> “clientsecret” from service key. |  |  |
| Tip: To save our token directly in the used environment you can define the following in the “Tests” section of Postman:  In the “**Tests**” tab copy the following code snippet:  postman.setEnvironmentVariable("token",  "Bearer " + JSON.parse(responseBody).access\_token); |  |  |
| Make sure to select the ENVIRONMENT on the top right corner before clicking “Send”.  Click on “Send”.  Note the “access\_token” generated. |  |  |

2.2. Generating OAuth Token (access\_token)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Copy the “**IMAGE\_CLASSIFICATION\_URL**” from service key and paste it in the address bar.  Change the HTTP request to “**POST**”. | |  | |  |
| Click on “**Headers**” tab.  Enter the following “key” “value” pair   |  |  | | --- | --- | | KEY | VALUE | | Accept | application/json | | tenantName | {{tenant\_id}} | | Authorization | {{token}} | | |  |  |
| Click on “**body**” tab.  Enter the following value in **form-data** type:  Key : files  select the input type:  <file> | |  |  |
| Upload images through the “**choose file**” button in body. | |  |  |
| Click on “**Send**”.  A JSON script will be generated with “**label**” and “**score**” for each image. | |  |  |