**POWER BI – ACTIVITY LOG:**

In power BI a service admin can analyze usages for all power BI resources at the tenant level by using custom reports based on the power BI activity log. With Power BI, you have two options to track user activity: The Power BI Activity Log and the Unified Audit Log.

Activity logging isn’t supported for Microsoft Cloud Deutschland. The user must have administrator rights (such as Office 365 Global Administrator or Power BI Service Administrator) to call this API or authenticate via service principal. This API allows 200 requests per hour at maximum.

We can build an administrative application based on the power BI Rest APIs to export the activity log events into a blob storage or SQL database.

We must select the activities by activity type or user id. For this, we must specify a start date and end date for the filter of the activities.

**AUTHENTICATION TYPE IN REST LINKED SERVICE:**

There are 5 type of Authentication type in REST linked service:

1. Anonymous - This is a public authentication type- which will be access by everyone. We don’t need to give any credentials for this authentication type.

2. Basic – In this type of authentication, we must give a username and a password. we give username to use to access the rest endpoints.

3. Managed identity (system assigned Managed identity) - It has a property named as resource id. It specifies the AAD resource we are requesting for authorization.

4. User assigned managed identity - In this type, we must give resource id with the user credentials.

5. AAD Service Principal- there are many properties in this authentication type.

* Service principal id - it specifies the azure active directory application's client id.
* Service principal key - it specifies the active directory application's key.
* Tenant- it will specify the tenant information like domain name or tenant id under which our application resides.
* Resource id- it specifies the AAD resource we are requesting for authorization.
* Azure cloud type - it specifies the type of azure cloud environment to which our AAD application is registered

**TASK DETAILS:**

Steps to do:

* Create a web activity, under URL section write- *Authentication API -*[*https://login.microsoftonline.com/4273e6e9-aed1-40ab-83a3-85e0d43de705/oauth2/token*](https://login.microsoftonline.com/4273e6e9-aed1-40ab-83a3-85e0d43de705/oauth2/token)
* Select method as POST.
* Create a header as a content-type and give the value for the same.
* In Body section, add the Client ID grant\_type=client\_credentials&resource=[*https://analysis.windows.net/powerbi/api&client\_id=e6673a16-ec32-4ee3-971e-f621626a45df&client\_secret=XXDQ83.\_T-62Ohi7r5MR-8.lJDD69AcK3I*](https://analysis.windows.net/powerbi/api&client_id=e6673a16-ec32-4ee3-971e-f621626a45df&client_secret=XXDQ83._T-62Ohi7r5MR-8.lJDD69AcK3I)
* Select Integration Runtime as default.
* The web activity is attached to copy activity, to copy data from Rest API to Data Warehouse.
* Under Source side of copy activity, select dataset as Rest and add parameter as- AdminAPI and the value of the parameter- *activityevents?startDateTime='@{formatDateTime(convertTimeZone(getPastTime(3, 'Day'),'UTC','India Standard Time'), 'yyyy-MM-dd')}T00:00:00.000Z'&endDateTime='@{formatDateTime(convertTimeZone(getPastTime(3, 'Day'),'UTC','India Standard Time'), 'yyyy-MM-dd')}T23:59:59.999Z'*
* Select request method as Get, request time will be default and select request interval as 10.
* Add Additional Headers for Authorization- to identify the user with credential and for content-type- typically set to “application/json” (name/value pairs in JSON format) and specifies the MIME type of the request body.
* Add pagination rules for splitting the data into pages, when we copy data from rest API the rest API limits its response payload size of a single request under a reasonable number while to return large amount of data, it splits the result into multiple pages and requires callers to send consecutive requests to get next page of the result. Here pagination rules- AbosuleURL and value as $.continuationUri
* In sink side, select dataset as Datawarehouse and define schema and table where you want to copy the data.
* Select copy method as – bulk insert for multiple record.
* Under mapping section, import mapping. Select collection reference.

Diagram

Description automatically generated

Graphical user interface, text, application, email

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Graphical user interface, text, application, Word

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Graphical user interface, text, application, email

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