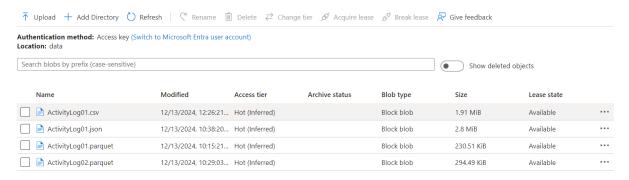
OPENROWSET for JSON files

OPENROWSET is a function in SQL that allows users to access and query data from remote sources, such as Azure Storage or other SQL Server instances. It can be used to read files from an external data source and return the content as a set of rows. The rows returned can be treated as a record set or derived table, and worked with as if they were a local table.

- 1. In this lab, we will use the OPENROWSET function to read the content from our JSON-based file.
- 2. So, first we will upload the JSON file to our data container inside our data lake.



- 3. After that in your Synapse Workspace create a new SQL Script. Then copy the code you get in the downloaded file for this lab.
- 4. First, we will run the code shown below, and also change the database to appdb. Then change the storage account name as well line 3. Now run this command.

```
@ 02-ExternalTableParg...
                        ■ 01-ExternalTableCSV
                                                 Nun  

✓ Undo  

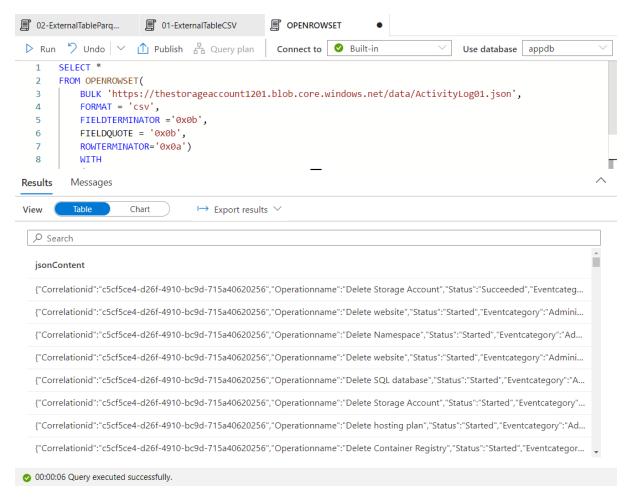
✓ 

✓ Publish  

Run  

Query plan
                                                  Connect to Built-in
                                                                                       Use database appdb
       SELECT *
   1
   2
       FROM OPENROWSET(
           BULK 'https://thestorageaccount1201.blob.core.windows.net/data/ActivityLog01.json',
   3
   4
            FORMAT = 'csv',
           FIELDTERMINATOR = '0x0b',
  5
           FIELDQUOTE = '0x0b',
   6
           ROWTERMINATOR='0x0a')
   7
   8
           WITH
  9
  10
                jsonContent varchar(MAX)
  11
            AS ROWS
  12
```

5. You will see that the data displayed is in the form of an Array.



6. Then we will use the below script to displace our data in the form of table using the OPENROWSET function.

```
14
     SELECT JSON VALUE(jsonContent, '$.Correlationid') As Correlationid,
        JSON VALUE(jsonContent, '$.Operationname') AS Operationname,
15
        JSON VALUE(jsonContent,'$.Status') AS Status,
16
        JSON_VALUE(jsonContent,'$.Eventcategory') AS Eventcategory,
17
        JSON_VALUE(jsonContent,'$.Level') AS Level,
18
        CAST(JSON_VALUE(jsonContent, '$.Time') AS datetimeoffset) AS Time,
19
        JSON_VALUE(jsonContent,'$.Subscription') AS Subscription,
20
21
        JSON_VALUE(jsonContent,'$.Eventinitiatedby') AS Eventinitiatedby,
22
        JSON_VALUE(jsonContent,'$.Resourcetype') AS Resourcetype,
        JSON_VALUE(jsonContent,'$.Resourcegroup') AS Resourcegroup,
23
        JSON_VALUE(jsonContent,'$.Resource') AS Resource
24
25
     FROM OPENROWSET(
         BULK 'https://thestorageaccount1201.blob.core.windows.net/data/ActivityLog01.json',
26
         FORMAT = 'csv',
27
         FIELDTERMINATOR = '0x0b',
28
         FIELDQUOTE = '0x0b',
29
30
         ROWTERMINATOR='0x0a')
         WITH
31
32
33
             jsonContent varchar(MAX)
34
35
         AS ROWS
```

7. Now you can see that the data is being displayed in the form of a table.

```
14
        SELECT JSON_VALUE(jsonContent,'$.Correlationid') As Correlationid,
 15
            JSON_VALUE(jsonContent,'$.Operationname') AS Operationname,
 16
            JSON_VALUE(jsonContent,'$.Status') AS Status,
            JSON_VALUE(jsonContent,'$.Eventcategory') AS Eventcategory,
JSON_VALUE(jsonContent,'$.Level') AS Level,
 17
 18
 19
            CAST(JSON_VALUE(jsonContent,'$.Time') AS datetimeoffset) AS Time,
Results
           Messages
                         Chart
                                         \mapsto Export results \vee
View

∠ Search

   Correlationid
                                                                                                     Time
                                                                                                                        Subscription
                      Operationname
                                          Status
                                                             Eventcategory
                                                                                 Level
   c5cf5ce4-d26f-...
                      Delete Namesp...
                                          Started
                                                             Administrative
                                                                                 Informational
                                                                                                     2024-05-30T14:...
                                                                                                                        387407e5-94af
   c5cf5ce4-d26f-...
                      Delete hosting ...
                                          Started
                                                             Administrative
                                                                                 Informational
                                                                                                     2024-05-30T14:...
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   c5cf5ce4-d26f-...
                      Delete SQL dat...
                                          Accepted
                                                             Administrative
                                                                                 Informational
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   c5cf5ce4-d26f-...
                      Delete role assi...
                                                                                 Informational
                                          Succeeded
                                                             Administrative
   c5cf5ce4-d26f-...
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                      Delete website
                                          Succeeded
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                      Delete Contain...
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                                                                                                                        387407e5-94af
   c5cf5ce4-d26f-...
                                          Succeeded
                                                             Administrative
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                                                                                                                        387407e5-94af _
   62e88e28-952a...
                                                                                                     2024-05-30T14:...
                      Delete hosting ...
                                          Succeeded
                                                             Administrative
                                                                                 Informational
```

00:00:05 Query executed successfully.