KQL Query in End-to-End Real-Time Intelligence Project

1. RT_BIKES_EVENTHOUSE

```
//Here are two articles to help you get started with KQL:
//KQL reference guide - https://aka.ms/KQLguide
//SQL - KQL conversions - https://aka.ms/sqlcheatsheet
// Use 'take' to view a sample number of records in the table and check the data.
BikesRawData
| take 100

Explain
Select top 100 *
From BikesRawData


BikesRawData
| project BikepointID, Street, Neighbourhood, Latitude, Longitude, No_Bikes, No_Empty_Docks
| take int(100)

// View a representation of the schema as a table with column names, column type, and data type.
BikesRawData
| getschema
| project ColumnName, ColumnType
```

21. BIKES_BRONZE_DATA

```
///Moving BikesRawData Table to Bronze Folder
.alter table BikesRawData (
TimeStamp: datetime,
BikepointID:    string,
Street: string,
Neighbourhood:  string,
Latitude:   dynamic,
Longitude:  dynamic,
No_Bikes:   long,
No_Empty_Docks: long)
with (folder = "Bronze")
```

33. BIKES_SILVER_DATA

```
// | into table BikesTransformedData
// Adoc Querty for Analysis
.set-or-replace BikesTransformedData <|
BikesRawData
| parse BikepointID with * "BikePoints_" BikepointID:int
| extend BikesToBeFilled = No_Empty_Docks - No_Bikes
| extend Action = iff(BikesToBeFilled > 0, tostring(BikesToBeFilled),
"NA")

//Created functions to transform Bronze Raw Data
.create-or-alter function with (docstring = "Transformed raw bike
data", folder = "SilverLayer") TransformationBikeData() {
    BikesRawData
    | parse BikepointID with * "BikePoints_" BikepointID:int
    | extend BikesToBeFilled = No_Empty_Docks - No_Bikes
    | extend Action = iff(BikesToBeFilled > 0,
tostring(BikesToBeFilled), "NA")
}

// IsEnabled (bool) - States if update policy is true - enabled, or
false - disabled
// source (string) - Name of the table that triggers invocation of the
update policy
// Query (string) - A query used to produce data for the update
// IsTransactional (bool) - States if the update policy is
transactional or not, default is false). If transactional and the
update policy fails, the source table is not updated.
// PropagateIngestionProperties (bool) - States if properties specified
during ingestion to the source table, such as extent tags and creation
time, apply to the target table
// read more - https://aka.ms/updatepolicy
//Enable Update Policy for Silver Table using Function

.alter table BikesTransformedData policy update
```[{
    "IsEnabled": true,
    "Source": "BikesRawData",
    "Query": "TransformationBikeData",
    "IsTransactional": false,
    "PropagateIngestionProperties": false
}]```

// View a representation of the schema as a table with column names,
column type, and data type.
c
| getschema
| project ColumnName, ColumnType
```
```

```
67.
68.///Moving BikesRawData Table to Bronze Folder
69..alter table BikesTransformedData (
70.TimeStamp: datetime,
71.BikepointID:    int ,
72.Street: string,
73.Neighbourhood:  string,
74.Latitude:   dynamic,
75.Longitude:  dynamic,
76.No_Bikes:   long,
77.No_Empty_Docks: long,
78.BikesToBeFilled:    long,
79.Action: string)
80.with (folder = "Silver")
```

81. BIKES_GOLD_DATA

```
82..create-or-alter materialized-view with (folder = "Gold")
   AggregatedData on table BikesTransformedData
83.{
84.    BikesTransformedData
85.    |summarize arg_max(TimeStamp,No_Bikes) by BikepointID
86.}
87.
88.AggregatedData
89.| sort by BikepointID
90.| render areachart with (ycolumns=No_Bikes,xcolumn=BikepointID)
```