A picture containing window

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**Azure Data Explorer Labs for BMW**

**Lab 1 – Basic KQL**

1. Look at the first 10 rows of the job table.
2. How many rows are in the job table?
3. Get an understanding of the schema of the table.
4. How many distinct MDR devices are in the field as of now?
5. How many distinct MDR devices have been active in the last 24 hours?
6. How many rows have been added in the last 24 hours?
7. How many distinct jobs are running on the MDR?
8. What is the maximum occur\_time per distinct job? What stands out?
9. Which jobs might contain data for speed?
10. Calculate the minimum, average, maximum and standard deviation for 3 metrics of your choice.
11. Plot the mileage of the top 5 cars.

**Lab 2 – Advanced KQL**

1. Aggregate a metric of your choice based on the variable e\_series (Hint: Use the table car\_base\_info).
2. Pick a table of your choice that contains complex data types (events might be a good option) and look for complex data structures. Extract data from this structure to a flat table.

**Lab 3 – Visualisations**

1. Design a dashboard in the tool of your choice.

**Lab 4 – Machine Learning & Advanced Analytics**

1. Build a forecasting model for a KPI of your choice.
2. Implement one solution that detects groups of in data of your choice. This could be Anomaly Detection or Clustering. Feel free to either use built-in functionality or Python.