**DOCUMENTATION:**

**IRIS DASHBOARD:**

**1. KPIs:**

* Start by creating key measures to display the maximum and minimum values for petal length, petal width, sepal length, and sepal width, along with the corresponding species.
* **DAX CODE:**

DAX

Copy code

MaxPetalLength\_KPI =

VAR MaxPetalLength = MAX('iris-data'[petal-length])

VAR MaxSpecies = CALCULATE(MAX('iris-data'[Species]), 'iris-data'[petal-length] = MaxPetalLength)

RETURN

MaxPetalLength & " (" & MaxSpecies & ")"

* To create a measure for minimum petal length, simply replace MAX with MIN. Repeat this process for the other characteristics.

**2. Organizing the Display:**

* Insert a textbox on the dashboard and label it "Petal Length."
* Add cards to display the maximum and minimum petal lengths.
* To group these elements, select the textbox and the two cards, navigate to the 'Format' option, and choose 'Group.' This will consolidate these components, making them easier to manage and position.

**3. Charts and Navigator:**

* Create bar and column charts to visualize data trends for petal length and petal width. This will help in understanding the distribution and comparison of these characteristics.
* Integrate a page navigator to facilitate easy navigation between different sections of the dashboard, enhancing the user experience.
* Duplicate the existing page to maintain consistency in design and layout.
* Repeat the steps, making necessary adjustments, to showcase key measures and visualizations for sepal length and sepal width.

**WEATHER DASHBOARD:**

**1. Data Manipulation and Transformation:**

* **Changing Data Types:** Ensure all column data types are consistent.
* **Extracting Additional Information:**
  + Create new columns for:
    - Month Name (as "month\_extracted").
    - Month Number.
    - Day of the Week Name (as "week\_day\_extracted").
    - Day of the Week Number (as "week\_day\_number").
  + This ensures proper ordering even if month and day names are not consistently arranged.

**2. Data Visualization:**

* **Average Wind Speed Over Months:**
  + Use a line chart to visualize average wind speeds.
  + Place "month\_extracted" on the x-axis.
  + Sort months correctly by selecting "sort by column" and choosing the "month number."
* **Similar Visualization for Other Parameters:** Follow the same process to create line charts for other metrics.
* **Key Performance Indicators (KPIs):**
  + Configure KPIs by:
    - Adding "cumulated hours" to values and averaging them.
    - Setting "month\_extracted" as the trend axis.
    - Using the minimum of "cumulated hours" as the target for comparison.
  + Repeat the process for average monthly air pressure.
* **Buttons for Navigation:** Add page navigation buttons by going to the "insert" tab, then "navigator," and selecting "page navigator."
* **Slicers for Filtering:** Include slicers to filter data by month and weekdays.
* **Week Days Dashboard:** Duplicate the current page and replace "month\_extracted" with "week\_day\_extracted" to create a dashboard focused on weekdays.
* **Slicer Sync Across Dashboards:** Ensure slicers are synchronized across both dashboards by going to "view," selecting "sync slicers," and applying synchronization to all pages.