Rajdhani Project: Data Manipulation and Reporting with Power BI.

Objectives: To construct a consolidated and interactive Power BI report that will allow Rajdhani to quickly assess the required data.

Description:

Rajdhani is a restaurant aggregation and meal delivery service based in India. It is currently operating in several countries across the world. Rajdhani provides through information about numerous eateries as well as consumer reviews. Rajdhani's owners aim to find hidden irregularities in their company's data. The ultimate goal of this project is to examine the data in such a way that they can accurately assess their business performance.

The data (sample) is currently accessible in the form of a few Excel files, each of which contains information about multiple restaurants operating in a certain continent. The clients want to construct a consolidated and interactive Power BI report that will allow them to do the following:

1. Derive data on the total number of restaurants worldwide, including continents, countries, and cities.
2. View data on a global scale with the capacity to drill down to a granular level.
3. Derive data on the restaurants with the highest average customer ratings.
4. Discover the restaurants with the lowest average costs.
5. Filter and view information on the restaurants based on:
   - Their geographical dimensions such as continent, country, and city.
   - The service they provide, such as online ordering or reservation services.
   - The average rating slab by the colour.
6. Identify the restaurants/outlets with the most cuisines served.
7. Design a multi-page report that suits Rajdhani's theme with easy navigation across sections.
8. Allow Rajdhani users to be able to access this information from both a web browser and a mobile device.

Aim of the project:

The aim is to construct a consolidated and interactive PowerBI report that will allow Rajdhani to quickly assess the required data.

Steps that will help in the completion of the project:

1. Import the data from all available Excel files.

2. Data transformation:

    - Make sure the **City** column names are corrected.

    For example: "Sí£o Paulo" should be corrected to "São Paulo"

    - Ensure the city name isn't ambiguous.

    For example: "Cedar Rapids/Iowa City" should be corrected to "Cedar Rapids"

    "ÛÁstanbul" should be corrected to "Istanbul"

3. Remove any columns that aren't being used **(Can be done as last step)**

4. Create two columns to display the **Restaurant Name** and **Restaurant Address**

5. Make a separate table for the list of the cuisine that each restaurant serves and a restaurant can have multiple cuisine (Hint: Split by rows)

6. As the **Country-Code** table is a dimension table, must only include unique and non-blank values.

7. KPI is a fact table rename the same.

8. Perform trimming operation where ever required.

9. Illustrate how to load the model at faster pace.

Steps to use DAX in the project:

1) Add a Rating colour column in an appropriate table with the data rows in the format given below.

Aggregate rating	**Rating colour**
0	Not Rated
Less than or equal to 2.9	Red
Less than or equal to 3.4	Orange
Less than or equal to 3.9	Yellow
Less than or equal to 4.4	Green
Less than or equal to	Dark Green

2) Create the following measures in the appropriate tables
   a. Restaurant count
   b. Total Restaurant
   c. Average cost
   d. Average rating
   e. Unique Cuisine count

3) Create a new column in the **Country Code** table and name it "**Continent**" and create the values using the below-mentioned convention

Hine: Use Switch measure with mapping as: `189, "Africa", 215," Europe", 37, "NAM", 30,"SAM", 14, "Oceania", 148, "Oceania", "Asia")`

Note: The mapping is continent - country, for example "Africa – South Africa"

Report View:

1. Use format painter where ever required.
2. Enable visuals if they are disabled by default.
3. Use Filters if Required.
4. Restaurant logo should be embedded with site url: https://shorturl.at/cnyzA