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**Project Stage Check #4**

**Data Visualization**

Dataset: **Tourism in India**

The project uses a dataset on domestic and international visitor arrivals, foreign exchange revenues, and international tourism statistics to analyse and visualise changes in Indian tourism. The objective is to provide insights on how India's tourism sector is developing and where it fits into the larger global tourism picture.

I propose designing a dynamic dashboard using multiple worksheets to visualize Indian tourism trends. To analyze and visualize Indian tourism trends, the project includes the creation of three interactive dashboards. First dashboard shows the percentage of people visiting from each country based on gender and age group. Second dashboard gives information about the modes of transportation used by visitors from different countries. Third dashboard shows Foreign Exchange revenues.

I have collected the datasets from the following sources:

References:

1. *INDIA Tourism 2014-2020*. (2022b, September 17). Kaggle. <https://www.kaggle.com/datasets/rajkachhadiya/india-tourism-20142020/data?select=Country+Quater+Wise+Visitors.csv>
2. *Open Government Data (OGD) Platform India*. (2022, January 21). Data.gov.in. <https://data.gov.in/dataset-group-name/Tourism%20Statistics>
3. *Market Research And Statistics | Ministry Of Tourism | Government of India*. (n.d.). Tourism.gov.in. <https://tourism.gov.in/market-research-and-statistics>

1. Parameter: "How Many Countries":

A parameter named "How Many Countries" is added to the worksheet "Top x countries male visitors." It allows users to input a range of values, allowing them to specify the number of countries they want to include in the analysis. It improves the worksheet's interactivity by allowing users to dynamically control the number of countries displayed in the visualization.

2. Reference Line for Average Foreign Exchange Earnings:

In the "Foreign Exchange Earnings" worksheet, a reference line has been added to display the average foreign exchange earnings. It provides the point of reference for users, which helps in assessing individual data points compared to the average.

3. Calculated Field: "Percentage of Male Visitors from 2014 to 2020":

In the "Top x countries male visitors" worksheet, the calculated field named "Percentage of Male Visitors from 2014 to 2020" is added. This calculated field allows for the calculation of the percentage of male visitors among the total visitors for each country within the specified range. It provides users with insights into number of male visitors over a specified period.

4. Creation of Groups for Each Quarter of the Year:

I have created groups for each quarter of the year, improving data organization and facilitating quarterly analysis. It allows users to explore data trends within specific time intervals and understand the variation of tourism patterns throughout the year.

5. Significantly Edited Tooltip Information

The tooltip information has been significantly edited in two worksheets: "Top x countries male visitors" and "Percentage visited from each country." The tooltip has aggregated data, such as the percentage of male visitors from 2014 to 2020 and the percentage of male and female visitors in 2020.

6. Sorting by Field Using Parameter

The "Top x countries male visitors" worksheet allows users to sort data by a field using the "How Many Countries" parameter. Users can dynamically enter the number of countries to be appeared using the parameter and are sorted in descending order.

**Dashboard 1:** A dashboard is created with two sheets, Percentage visited from each country and Age groups sheet. The dashboard has a control where it is possible to select number of top countries that a visualizer wants to know about the top x countries that visited India. Also it is possible to see the percentage of people visited from each country using the dashboard. The dashboard on hover action, shows percentage of population visited a country based on age group, on hovering over a country, that particular country’s age wise percentage is displayed.

**Visitors from each country worksheet:** This worksheet gives information about different modes of transportation used by people from different countries to arrive. The visualization is based on the years 2014 to 2020. It allows user to select the year and the mode of transportation to analyze.

**Visitor ways worksheet:** This worksheet shows different modes of transportation used by visitors from all the countries over the years 2014 to 2020. It allows user to select the particular year.

**Dashboard 2:** Dashboard 2 is based on two worksheets, visitors from each country and Visitor ways. This dashboard has a user control that works on both worksheets. Selection of particular year reflects on both worksheets. The dashboard has an action where user can select countries to observe different modes of transportation related to those countries.

**Entry of port:** This worksheet shows different entry of ports that visitors used over the years 2014 to 2020.

**Top 10 states (domestic visitors):** This worksheet gives the top ten states visited by domestic tourists over the years 2014 to 2020 using a pie chart.

**Top 10 states (FTA) :** This worksheet gives the top ten states visited by foreign tourists over the years 2014 to 2020 using a pie chart.

**Story:** An introduction dashboard and a conclusion dashboard are added to the existing dashboards to create the story.

One more dashboard has to be created and need to make the story look more clear, clean and appropriate.