Telangana Government Tourism Project

**Domain:**  Tourism | **Function**: Revenue / Municipal Administration

Telangana is one of India’s leading states and has published its tourism data under its open data policy.

As a data analyst, Peter Pandey saw this as an opportunity to expand his skills and show his work on a bigger scale. Peter Pandey’s idea is to find the patterns in the given data, do additional research, and give data-informed recommendations to the Telangana government which can be used to increase their revenue by improving administrative operations.  
   
Peter began his work by framing some primary, and secondary research questions and recommendation ideas.

**Task**:

Imagine yourself as Peter Pandey and perform the following task.

1.    Check ‘research\_questions\_and\_recommendations.pdf’. You can use any tool of your choice (Python, SQL, Power BI, Tableau, Excel, PowerPoint) to analyze and answer these questions. More relevant instructions are provided in this document.  
2.    The target audience is top-level officials - hence you need to create a convincing presentation to provide insights/recommendations.  
3.    You can add more research questions and answer them in your presentation that suits your recommendations.  
4.    Be creative with your presentation, audio/video presentation will have more weightage.  
5.    You can use additional data based on your own research to support your recommendations  
6.    Example LinkedIn Post.

**Other resources Provided:**

a.    Dataset required to answer preliminary research questions.  
b.    Metadata  
c.    Instructions for using dataset.  
d.    Sample Presentation

**Credits:**The dataset is taken from Open Data Telangana. Thanks to Telangana Government for providing real-time datasets for public access which is a great learning asset - feel free to explore them here. (<https://data.telangana.gov.in/>).

Preliminary Research Questions (Answer can be found directly from the given data):

1. List of top 10 districts that have the highest number of domestic visitors overall?
2. List down top 3 districts based on compounded annual growth rate (CAGR) of visitors between 2016 and 2019.
3. List down bottom 3 districts based on compounded annual growth rate (CAGR) of visitors between 2016 and 2019.
4. What are the peak and low season months for Hyderabad based on the data from 2016 to 2019 for Hyderabad district?  
   (Insight: Government can plan well for the peak seasons and boost low seasons by introducing new events).
5. Show the top & bottom 3 districts with high domestic to foreign tourist ratio?  
   (Insight: Govt. can learn from the top districts and replicate the same to the bottom districts which can improve the foreign visitors as foreign visitors will bring more revenue).

Secondary Research Questions (Need to do research and get additional data):

1. List the top and bottom 5 districts based on tourist to population footfall ratio\* in 2019?   
   (\*ratio: Total Visitors/Total Residents Population in the given year)   
   (Insight: Find the bottom districts and create a plan to accommodate more tourists)
2. What will be projected number of the domestic and foreign tourists in Hyderabad in 2025 based on the growth rate from the previous years?   
   (Insight: Better estimate of incoming tourists count so that govt. can plan the infrastructure better).
3. Estimate the projected revenue for Hyderabad in 2025 based on average spend per tourist (approx. data):



Suggested areas for further secondary research to get more insights: Crime Rate, Cleanliness Ratings, Infrastructure development ratings etc.

PPT outline:

**Introduction to Telangana Tourism**

1. Brief overview of Telangana as a tourist destination
2. Introduction to key attractions and landmarks in Telangana
3. Importance of tourism for the economy of Telangana

**Overview of Tourist Growth in Telangana**

1. Historical trends of tourist arrivals in Telangana (2016-2019)
2. Factors contributing to the growth in tourist numbers
3. Comparison of domestic and foreign tourist arrivals over the years

**Compound Annual Growth Rate (CAGR) of Tourists**

1. Calculation and explanation of CAGR for tourist arrivals
2. Comparison of CAGR between domestic and foreign tourists
3. Interpretation of CAGR and its significance for tourism planning

**Projected Tourists and Revenue for 2025 in Hyderabad**

1. Forecasted tourist arrivals and revenue for 2025 in Hyderabad
2. Potential impact of increased tourism on the local economy
3. Factors driving the projected growth in tourism for Hyderabad

**Districts with the Highest Number of Tourists (Domestic, Foreign, and Overall)**

1. Identification of districts with the highest overall tourist footfall
2. Analysis of districts attracting the highest number of foreign tourists
3. Overview of districts with the most domestic tourists

**Districts with Top and Bottom Tourist to Population Ratio**

1. Identification of districts with the highest tourist to population ratio
2. Implications of high tourist to population ratio for local communities
3. Analysis of districts with the lowest tourist to population ratio

**Districts with Top and Bottom Domestic to Foreign Tourist Ratio**

1. Identification of districts with the highest domestic to foreign tourist ratio
2. Analysis of districts with the lowest domestic to foreign tourist ratio
3. Implications of varying domestic to foreign tourist ratios for local economies

**Top Visiting Months in Hyderabad (2016-2019)**

1. Analysis of the most popular months for tourism in Hyderabad
2. Factors influencing the seasonality of tourist arrivals
3. Opportunities for targeted marketing and promotion during peak months

**Crime Ratio in Telangana (2022)**

1. Overview of the crime ratio in Telangana for 2022
2. Initiatives and measures taken by the government to ensure tourist safety
3. Comparison of crime rates with previous years

**Cleanliness Ratings in Telangana (2023)**

1. Assessment of cleanliness ratings in Telangana for 2023
2. Efforts and initiatives undertaken to maintain cleanliness in tourist destinations
3. Comparison of cleanliness ratings with previous years

**Conclusion: Key Insights and Recommendations**

1. Summary of the tourist growth trends in Telangana
2. Highlight the districts with the highest tourist footfall and their significance
3. Emphasize the importance of maintaining cleanliness and safety for tourists
4. Discuss the projected growth and potential revenue generation for Hyderabad
5. Recommend strategies for promoting tourism during peak months
6. Suggest measures to improve the domestic to foreign tourist ratio
7. Conclude with the overall potential and opportunities for Telangana tourism

Recommendations that can be provided to the government: To be continued.

Steps taken:

1. There were separate excel files for each year (2016-19) for foreign and domestic visitors. First of all, I merged them into two files named Foreign Visitors and Domestic Visitors accordingly using power query (opened the files in power query as only connections and then append them using the append function).
2. Changed the date format but using the “Text to columns” function in the data tab.
3. Then I notice some null values in the visitors-column for both the files. I used the replace function to replace them with 0.