**Part 1: Descriptive Analysis**

* Wrote a brief paragraph about this dataset
* Gave a pivot view summary and suitable visualization for the following:
  + The total number of visitors segmented by each level, every month in each year
  + The percentage difference in the number of visitors between different regions and years
  + Looked out for outliers and handled them. Used visualization to showcase outliers before and after treating them.

**Part 2: Prescriptive Analysis**

* Analyzed the data for the region performing worst in all the years and prescribed what could be the reason and how to improve the number of visitors from that region.
* Based on the given data, identified which region is having a better YearOnYear growth.
  + Created a new feature (Level 5 visitors/Level 1 visitors) and found what were the top 3 states based on that created feature for all the available segments and each given year.
  + Created another metric apart from (Level5 visitors/Level1 visitors) and performed the same task as above. Compared if the states are same in both the questions and created a hypothesis about the reason behind it.

**Part 3: Prediction**

Wrote a function called predict\_future(‘Region’,’Segment’) which, when called, would perform the following activity:

* + Predicts the “Level 5” future values for the next 6 months, given the parameters of the function. (Made sure the parameters have default values in place) Also, plotted it.
  + Generated the MAPE and RMSE of my prediction of the year 2022, 2021 & 2020 for the given parameters.

Plotted a line graph of the level 5 actual numbers from 2020-2022 & in the same graph, there gave the predicted numbers for 2023. The x-axis was the timeline from 2020 Jan to 2023 Jun and the y-axis was the value of the level 5 column and predicted values.

**Part 4: A/B testing**

Used “AB\_TEST” sheet in that excel file, and created few possible metrics for A/B testing

Performed an AB testing to find which variation (whether control or treatment) is better.