**Title**: *Exploring Global Happiness: Insights from the World Happiness Report*

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**Project Description/Outline:**

The World Happiness Report is a comprehensive survey of global happiness spanning from 2015 to 2019, encompassing data from 156 countries. Our project aims to delve into the multifaceted factors that influence happiness worldwide, considering economic, social, cultural, and population indicators. To achieve this, we will conduct an exploratory data analysis (EDA) using the available data and leveraging APIs, such as Geocoding.

**Research Question:**

Our central research question revolves around conducting an in-depth EDA to understand the diverse factors impacting happiness across countries.

**Datasets:**

We will utilize four CSV files from the World Happiness Report dataset and a geocoding API to enhance our geographical insights.

**Rough Breakdown of Tasks:**

To ensure an organized and efficient workflow, we've divided our tasks into specific areas:

1. Overall Summary: Provide an overarching summary of global happiness trends over time. This includes categorizing happiness levels into high, mid, and low categories, tracking overall attributes over time, and examining how the top 10 and bottom 10 countries were affected from 2015 to 2019 for each attribute.
   1. Compound/stacked bar chart to show the contribution of each attribute to the happiness score of each country.
   2. Colour-coded scatter graph to show the high, mid and low scoring countries for each year (one graph per year)
   3. Heatmap of the correlation coefficients
   4. Questions: How has the happiness score changed over time?
2. Regional Happiness Disparities: Analyse happiness scores across different regions and continents to identify patterns and disparities. This involves grouping countries into regions or continents using APIs. Key sub-tasks include examining the drivers behind higher or lower scores and scrutinizing each attribute's impact.
   1. Finding the latitude of each country with OpenWeather or Geocoding, and then creating a linear regression with happiness and latitude to see if there is a correlation between the two factors
3. Impact of Economic and Political Factors: Investigate the connection between a country's economic indicators (e.g., GDP per capita) and its happiness score. Additionally, explore the relationship between political factors like corruption and happiness.
4. Social and Cultural Influences: Delve into the role of social and cultural factors in happiness. Analyse the influence of cultural norms, family dynamics, social support networks, and community engagement on well-being.

Our project, "Exploring Global Happiness," aims to shed light on the intricate factors that shape happiness around the world. Through rigorous analysis and insightful visualizations, we hope to provide valuable insights for a wide audience.

**Addition of Covid (merge covid data with WHD on country)**

If GDP has a significant outcome on happiness, will our wealthiest countries have the best handling of Covid-19?

What about countries with a low perception of Government corruption?

Does life expectancy have any impact on Covid cases?

If countries have a lower life expectancy, perhaps those are also the countries that are not handling the pandemic as well.

How does social support impact cases?