WORLD HAPPINESS & ALCOHOL CONSUMPTION

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INTRODUCTION

The pursuit of happiness is essential to human life that it is declared as a constitutional right in many countries, and there are datasets and numerous research works related to happiness.

Because of COVID-19 that killed countless number of people and brought down the quality of life, our team decided to find out which factors contribute to the happiness and suggest ways to improve the quality of life using our dashboard.
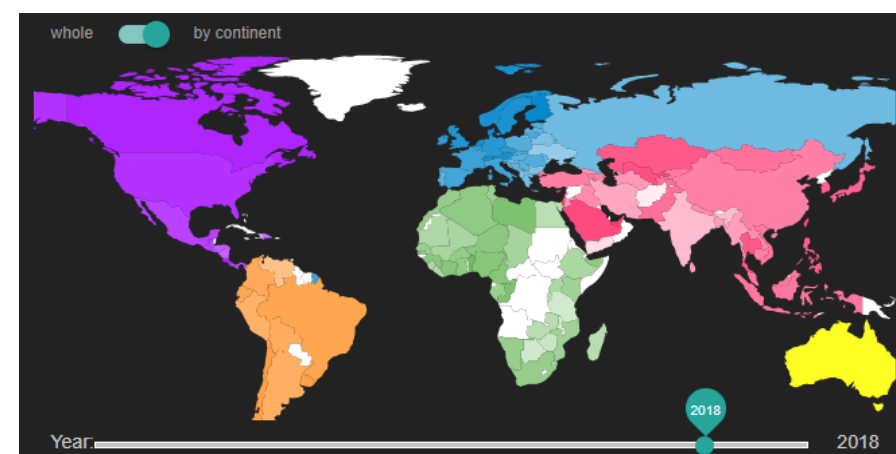We also witnessed the increase in alcohol consumption among our friends and family since the COVID-19 breakout, so we aim to discover if there is a correlation between happiness and people's tendency to drink.

MAJOR ATTRIBUTES OF HAPPINESS

> **Life ladder** quality of a respondent's life on a 0-10 scale = happiness index

> **Log GDP per capita**

> **Social support** whether a respondent has relatives / friends to count on for help when in trouble

> **Healthy life expectancy at birth**

> **Freedom to make life choices** whether a respondent is happy with freedom to choose what to do with life

> **Generosity** whether a respondent donated money to a charity in the past month

> **Perceptions of corruption** whether a respondent thinks corruption is widespread throughout government / business

> **Positive affect** happiness, laughter, enjoyment

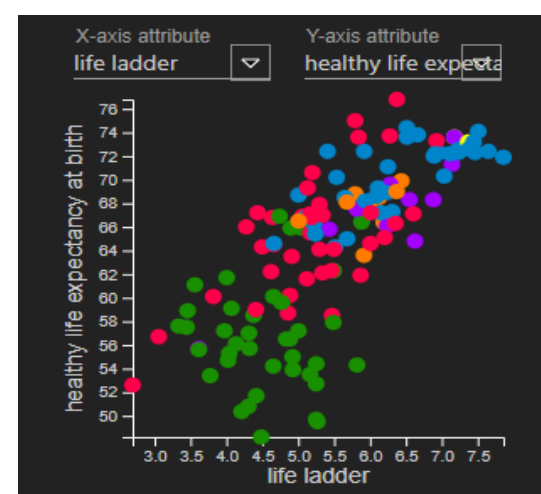> **Negative affect** worry, sadness, anger

> **Alcohol** liter per capita

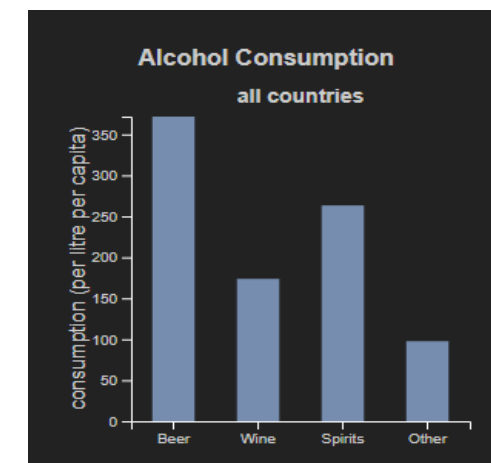## DASHBOARD (INTERACTION & ANALYSIS)

CHOROPLETH WORLD MAP

> This is an interactive plot that displays all the countries around the world. We added a timeline slider so that the users can look into the details with respect to Happiness and Alcohol Consumption in each country for a selected year [2005 - 2020].
> The country with the darkest shade is ranked the happiest, and the country with the lightest shade is ranked the least happiest.
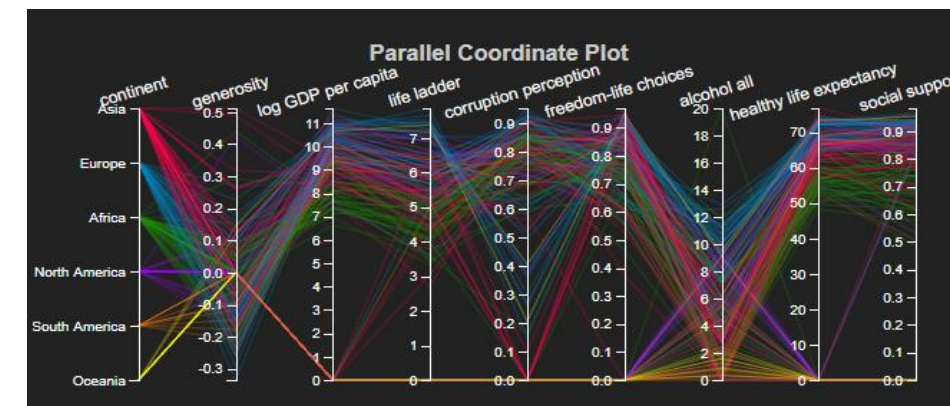
SCATTERPLOT

> This is an interactive plot which is used to easily get the correlations among various attributes contributing towards happiness. User can select X and Y axes attributes from the provided dropdowns.
> User can also select certain countries by brushing and see its linked changes on other charts.
> Finding: Life ladder, GDP per capita, Social Support and Healthy Life Expectancy are positively correlated.

ALCOHOL CONSUMPTION

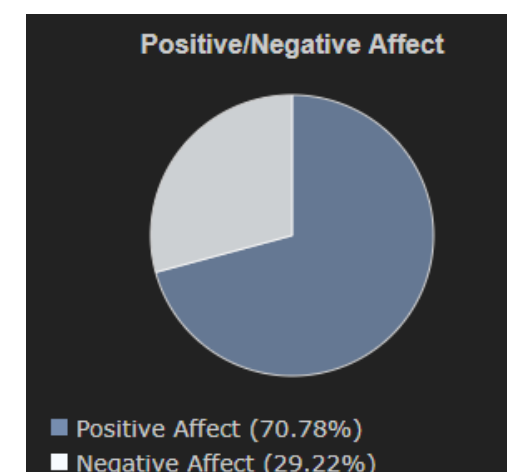> This bar chart shows the consumption of alcohol per litre per capita for all countries/ selected countries.
> Findings: France, Italy, Portugal has the highest wine consumption. Islamic countries have least alcohol consumption.
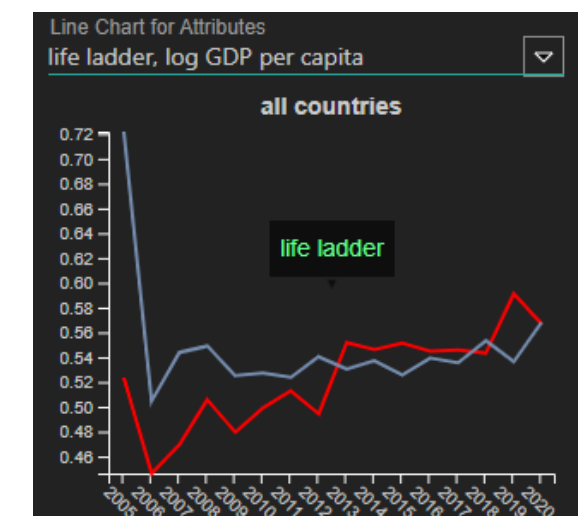
PARALLEL COORDINATES PLOT

> This is a highly interactive plot which displays the correlations among all the features at once for the countries.
> User can brush and filter to get granular insights.

POSITIVE/NEGATIVE AFFECT

> This plot represents the positive and the negative affect for all or selected countries via pie chart.
> Finding: Happy countries have high percentage of positive affect.

LINE CHART

> This chart helps in analyzing the trend of attributes throughout the period of about 15 years [2005 - 2020]
> User can select multiple attributes from the dropdown.

BRIEF CONCLUSION

After using Visual Analytics (Visualization, Interaction, Data Analysis) our group came up to the conclusion that:

➤ Alcohol consumption has a positive correlation with the happiness of a country.

➤ GDP, Social Support and Healthy Life Expectancy at birth are the major contributing factors for the happiness index.

➤ Future work: We felt that there should be many other factors like religion, culture etc. that should be considered while estimating happiness of a country. We intend to extend this project for research.