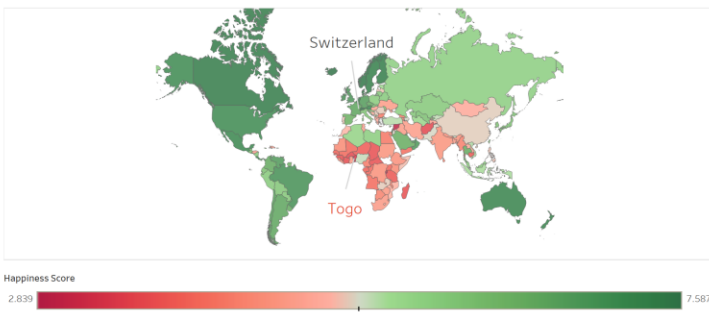
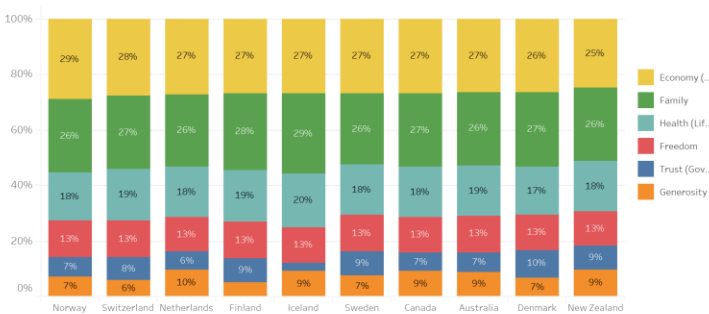


What makes us happy?

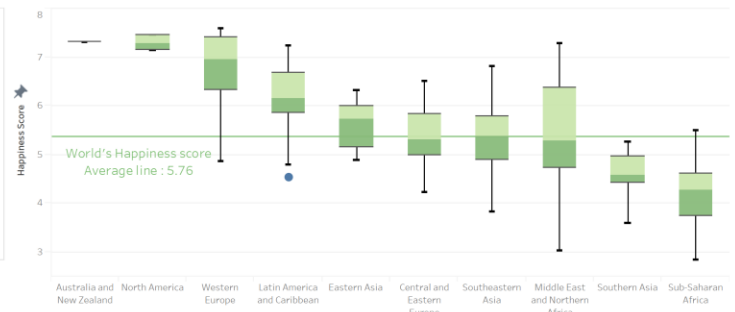
Where are the happiest places in the world?



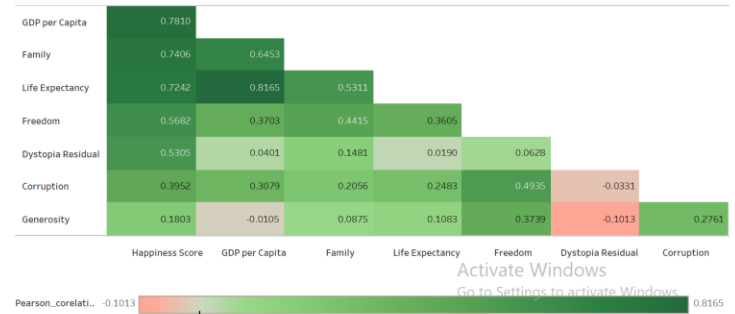
Identify Top 10 happiest Countries and how each factors contribute?



Nordic nations are way happier than Southern Asia and African countries



What impacts people's happiness?



Data source : <https://www.kaggle.com/unsdsn/world-happiness>

Motivation:

Happiness / Peace is the most fundamental aspect of our life ,and thereby liberates us to live a full fledged life. It intrigues me to know why, where and whether people are happy or not , and what factors contribute to happiness ,hence I chose this dataset.

I chose the following graphs to get a good understanding of the whole data and things that I want to know and bring out some insights.

Graph 1: Where are the Happiest Countries in the World?

- With the world map coupled with heat map, we could get a general understanding and an over view of which countries are happy across the world. This graph is plotted based on Happiness score
- The color of the scale ranges from **dark red** to **dark green** , as conventionally, **red** represents **sad** , while **green** represents **happiness**.
- I highlighted top and bottom ranked countries as we are curious to see which is the best and worst
- **Insights:** Most of the **African Countries and Southern Asia** countries seem to be not happy, while While **Australia/New Zealand, North America , and Europe** seem to be very happy

Graph 2: Box plot

- Statistically, I wanted to see, to what extent each region is happy relative to other regions.
- Since Boxplot covers so many statistics just in one plot, I used this to plot for each region. This graph helps to compact what the previous visualization demonstrates.
- I used World's average happiness score as a reference line as well to see how each region fares with respect to average.
- I used green colour in boxplots to maintain consistency and to emphasize "happiness"
- **Insights:**
 - a) Countries with the highest happiness ratings are chiefly grouped around Northern Europe, North and South America
 - b) Countries with lower happiness ratings are concentrated in Africa and the Middle East

Graph 3: Identify Top 10 countries and see the factors that are contributing

- I am curious as to see what is the contribution of each factor to overall happiness
- I filtered Top 10 countries, and used simple barplots to see proportions of each factor's contribution
- I colored each factor to distinguish the factor's contribution, and also labelled the contribution

Insights:

- Top 3 factors that are contributing to Happiness are
 - a) Economy
 - b) Family
 - c) Health

Graph 4: What Impacts people's happiness

- We figured the contribution level of each factor for top 10 countries. But that wasn't enough to come to a strong conclusion that these are the factors that really matters to be happy. So I wanted to see how much each factor correlates with happiness score for all countries and come to a strong conclusion.
- I used correlation matrix for this and colored accordingly to maintain consistency and carry forward the intuition that green represents happiness while red represents sadness.
- I used scatterplots in tooltips to see correlation more clear. We could see this if we hover over each correlation value.
- I filtered diagonal and right side of the diagonal correlation values to avoid repeated information, and hence chart junk.

Insights:

- The top 3 factors which contribute to happiness score strongly correlates to happiness score as well. If a small increment in each of these top 3 factors increases, happiness would also increase.
- More deeply, Here we can see how influential the economy is on happiness. We can infer that a better economy reduces the worry about paying for necessities and allows people to enjoy life, similarly we can infer the importance on family, and health on happiness.
- While, Generosity, and trust on the government are leastly correlated to happiness.

"If you have a good salary, family, and health, you are atleast happy"