World Happiness Analysis

Introduction

World happiness, why? We hope to find the understanding of the factors that contribute to other countries happiness.

Determining the journey of how to unpack the data we chose Postgres as our database. Using supervised machine learning. And Tableau to create our visuals.

Data Sources:

- World-Happiness-report.2005-2020.csv
- MortalityDataWHR2021C2.csv
- Wikipedia-iso-country-codes

Purpose:

- What is the main well being factor that contributes to increase the happiness around the world?
- Is a high rate of mortality correlated with less happiness?

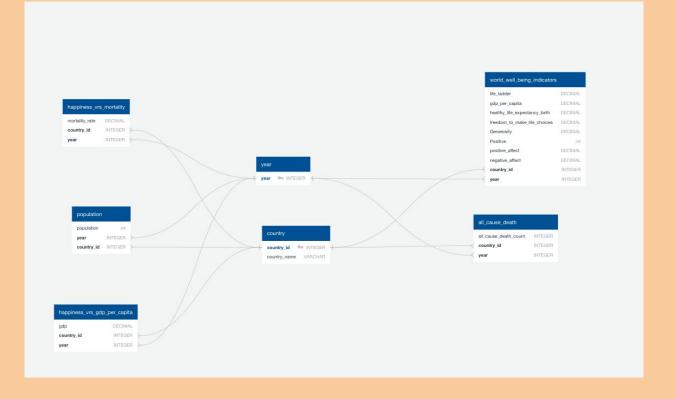
World Happiness

Analysis

- Reviewing the state of happiness from most countries.
- Extracting factors that contribute to happiness.
- Comparing countries numbers to identify key factors to their state of happiness.

Database Model

Postrgres as our relational database management system.



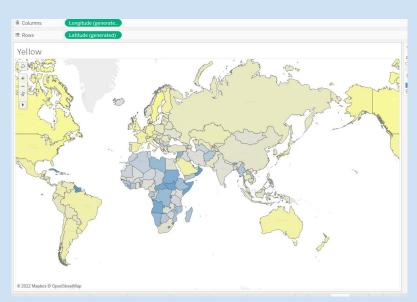
Machine learning

Supervised Machine Learning

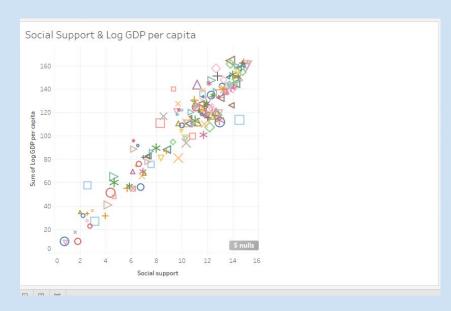
- 1. Independent and Dependent variables
- 2. Model Testing
- 3. Applying XGBoost Model

| | Model | MAE |
|---|-------------------------|--------|
| 0 | Linear Regression | 0.3906 |
| 1 | Random Forest Regressor | 0.3659 |
| 2 | XGBoost | 0.3874 |
| 3 | Decision Tree | 0.4948 |
| 4 | Bayesian Linear Model | 0.4194 |

Visualizations



The maps colors represent the measurement from 'Life Ladder'.



The graphs colors above represent the column for 'Social Support'.

Conclusion