**Capstone-Data-Science-Projects**

**DSC680-T301 Applied Data Science**

**Data Sources: World Happiness Report**

The dataset is found under the Kaggle website. The World Happiness Report is a landmark survey of the state of global happiness. There are four reports published: the first in 2012, the second in 2013, the third in 2015, and the fourth in 2016 etc.

**world-happiness/2017.csv:** The dataset of World Happiness 2017 ranks 155 countries by their happiness levels. It was released at the United Nations at an event celebrating the International Day of Happiness on March 20th. This dataset provides the happiness score and happiness rank of 155 countries around the world based on seven factors. These factors are involving family, life expectancy, economy, generosity, freedom, trust in government, and dystopia residual. The Sum of the value of these seven factors gives us the happiness score and the higher the happiness score, the lower the happiness rank.

**world-happiness/2019.csv:**

For this second project, the dataset that I have chosen is the happiness 2019 dataset. This dataset provides the happiness score and happiness rank of 155 countries around the world based on some factors such as social support, health life expectancy, freedom to make life choices, generosity, and perception of corruption. The Sum of the value of these factors gives us the happiness score and the higher the happiness score, the lower the happiness rank. As a result, the higher value of each of these above seven factors mean the level of happiness is higher. Therefore, it is possible to define the meaning of these factors as the scale to which these factors lead to happiness.

**world-happiness/2020.csv:**

The World Happiness Report 2020 for the first time ranks cities around the world by their subjective well-being and digs more deeply into how the social, urban, and natural environments combine to affect our happiness. For the third project, the dataset that I have chosen is the happiness 2020 dataset. This dataset provides the happiness score known as ladder score of 155 countries around the world based on some factors such as GDP per capita, Social support, Healthy life expectancy, freedom, generosity Perceptions of corruption, health. The Sum of the value of these factors gives us the happiness score and the higher the happiness score, the lower the happiness rank. As a result, the higher value of each of these above seven factors mean the level of happiness is higher. Therefore, it is possible to define the meaning of these factors as the scale to which these factors lead to happiness.

https://www.kaggle.com/javadzabihi/happiness-2017-visualization-prediction

https://www.kaggle.com/pinarkaya/world-happiness-eda-visualization-ml/notebook

https://en.wikipedia.org/wiki/World\_Happiness\_Reportworld-happiness/2020.csv

**Programming Language use:**

ANACONDA NAVIGATOR

Jupiter Notebook 6.0.1

PYTHON 3.74

**Required Packages**

* **Numpy:** for basic numerical computation
* **SciPy:** for scientific computation including statistics
* **StatsModels:** for regression and other statistical analysis
* **Pandas:** for representing and analyzing data
* **Matplotlib:** for visualization…