File I/O Data Parsing Assignment

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Source of Data

World Happiness Report 2016 (http://bit.ly/happinessdata)
World Happiness Report 2016 uses data that come from the Gallup World Poll, an American poll conducting company. The Cantril ladder survey is used, a survey which asks the respondent to rate their current lives from 0 being the worst imaginable life to 10 being their best imaginable life. The columns/sub-bars are used for data comparison.

Suicide Rates Overview 1985 to 2016 (http://bit.ly/suicidedata)
Suicide Rates Overview 1985 to 2016 uses data from the World Health Organization database. It matches various countries to their suicides based on age ranges from the years 1985 to 2016.

Data Structure #1

Format & Application

{country:[[hapiness index/score], [suicides/100k pop]]}

{'Armenia': [4.36, [19.37, 6.73, 4.56, 2.47, 1.95, 1.95, 1.56, 0.74, 0.72, 0.51]]....}

The format of the data is in the structure of lists in a dictionary. The country is the key to the dictionary and it has the happiness index and suicides/100kpop as lists as the value. The general purpose of this data is to determine if there is a general trend between the happiness index and suicidal rate of a country, thus determining whether overall happiness affects the suicidal rate of people in a country. With this information, data analysts can develop other data sets- for example, freedom and government control- to further analyze the trend. This type of data structure can be useful to various governments as they can use this data to best optimize the overall wellbeing of their country. In addition, this data structure can also be useful for travellers/people who are researching countries for immigration.

Data Structure #2

Format & Application

{"<1": [[ratio of suicides to one decrement of the total happiness index,[country,happiness index/score, [suicide rates/100k people]]],....., ">1 & <2": [ratio of suicides to one decrement of the total happiness index,[country,happiness index/score, [suicide rate/100k people]]], ...}

{'<1': [[0.719148936170213, ['Armenia', 4.36, [19.37, 6.73, 4.56, 2.47, 1.95, 1.95, 1.56, 0.74, 0.72, 0.51]]],.....}

The format of this data structure consists of lists in a dictionary. The keys are ranges of the ratio of suicides to one decrement of the total happiness index. The ratio of suicides per one decrement of the total happiness index is calculated by dividing suicides per 100 k people by the happiness index of the country subtracted from the upper limit of the survey (10; being the best life). The values are the countries that fit in the specified range of ratios, with the countries' happiness index/score and suicide rates after its name. The general purpose of this data structure is to organize countries based on the ratio of suicides /100k population to one decrement of the total happiness index. The range indicators place countries in an ascending order based on the impact on the number of suicides due to one decrement in the total happiness index. This data structure can be utilized by governments and suicide prevention agencies to better predict the possibility of suicides for large groups of people in specific countries from their happiness index.