# Introduction

Suicides are a big problem all over the world. A huge amount of people commit suicides everyday all over the world because of multiple issues they are facing in their lives. According to me, suicide is never an option in any case, and we should help the people who are in some problem and prevent them from taking this huge step. India being a very huge developing country has a lot of issues ranging from financial to social issues alone constitutes for 17% of total suicides all over the world. My visualisation deals with the suicide rates in India. It emphasizes on the different aspects of the dataset I took and tries to visualise each variable in the dataset.

# Description

**Dataset**

I have tried to create a visualisation using the world suicide data as well as the Indian suicide data. In this visualisation I have used each variable and tried to denote a relationship between each variable. This visualisation deals with the suicide data of India for 11 years starting from 2001.

**Visualisation Description**

in the first visualisation I have visualised the male to female suicide ratio. To depict this, I have used an interactive graph created using d3.js[1]. It has male suicide ratio on the x-axis and female suicide ratio on the y-axis. I have a chart from which we can select the year for which the data is to be visualised. Also, if not selected the data keeps refreshing every 2 seconds for each year. The points in the graph depicts the ratio for each state and I have different colour for every state. The legend for this is also provided.

In the seconds visualisation, I have tried to visualise the reasons behind these suicides. For this visualisation I have used a Loom chart. It is created using d3.js and carousel js. I changed the dataset accordingly to fit into this visualisation. As we hover over this chart, it shows the reason for suicides in different states and number of people committing suicide out of 10000 for that reason. There are 2 loom charts depicting multiple variables or reasons for suicides in different states. We can switch between these two charts using buttons provided.

In the last chart I have visualised the data for the world suicide analytics. I have taken out the data for mental health infrastructures in5 major countries consisting of India, China, United States of America, New Zealand and Singapore. I have created a radar chart depicting the 5 major aspects of any country suicidal rate and mental health. This radar chart is created using d3.js.These factors are suicidal rate for each country, number of psychiatrists working in each country, number of mental hospitals, number of psychologists working in the country and mental health expenditure of that country. The results for this visualisation show that country that spend more on the mental health have lower number of suicides.

**Visual Encoding**

In first visualisation, to separate each variable in the dataset I have used different colours for each state. Legend to depict these has also been provided. Also, in the same graph as the year changes the dataset changes which changes the position of the points on the graph.

In the second visualisation, I have given different colours to each reason for suicide which make the loom chart easily interpretable.

# Citing third party resources

￼￼In visualisation 1 i have used loom chart which was a chart used to display the visualisation for frequency of words in Lords of the rings[1]. I took the motivation from this visualisation and changes the visualisation and chart according to my data and made the loom for suicide data.

I have used carousel js and d3.js for making different charts in the visualisation dashboard.

carousel js was used to create the band and arcs in the second visualization. The chords and arcs were changed according to the data I used[3]

# References

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| [1] | https://github.com/nbremer/d3-loom |
| [2] | <https://github.com/d3/d3> |
| [3] | <https://github.com/finn-no/carousel-js> |