Advanced Database Topics (COMP 8157)

Pledge: I, Azmina Aziz Vanzara, verify that the submitted work is my own, original work, that all sources are cited accurately, and that I have not submitted any portion of this work for any other university course.
Azmina Vanzara. (14/04/2021)

Dataset

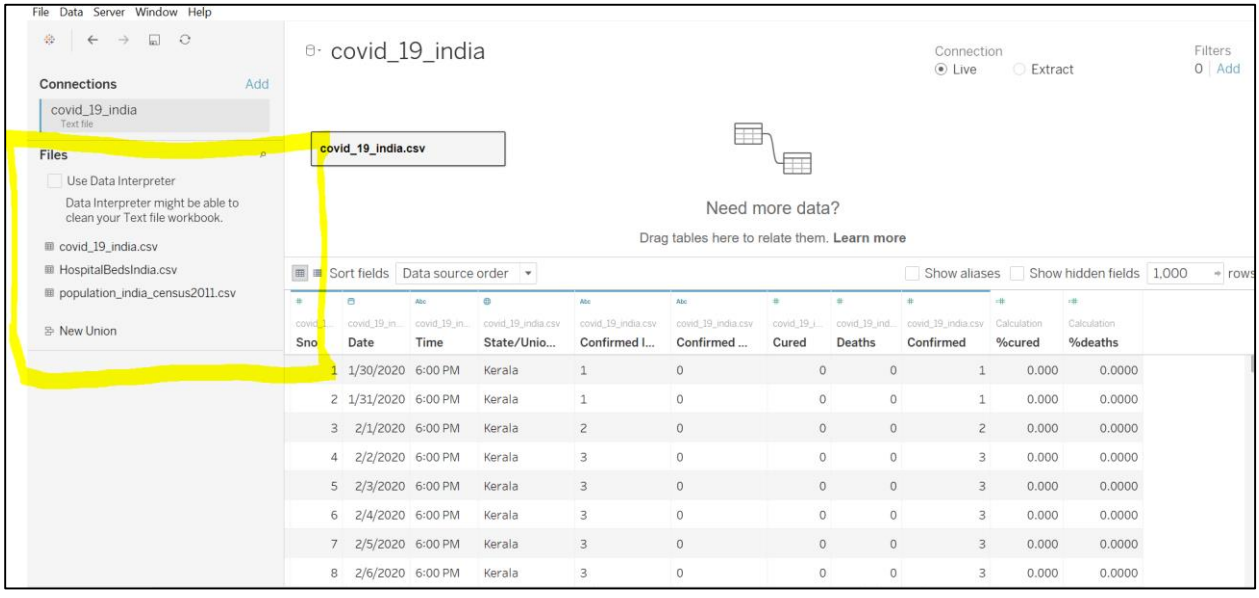
Covid19dataset,HospitalBedsinIndia.csv,Population_india_census2011.csv

Tool:

Tableau: It is an easy-to-use tool for visualization. It provides the facility of drag and drop with makes it very efficient to use.
Visualization: Here the purpose of visualization is to see the covid data analysis of country India where I have plotted chart of the taking into considerations of all types of visualization by creating three dashboards which gives a clear idea of what is the status of coronavirus in state of India considering the confirmed , cured as well as death in particular states as well as in the whole country.

Below contains the explanation of each dashboard.

Below is the screenshot of the data present in the datasets.



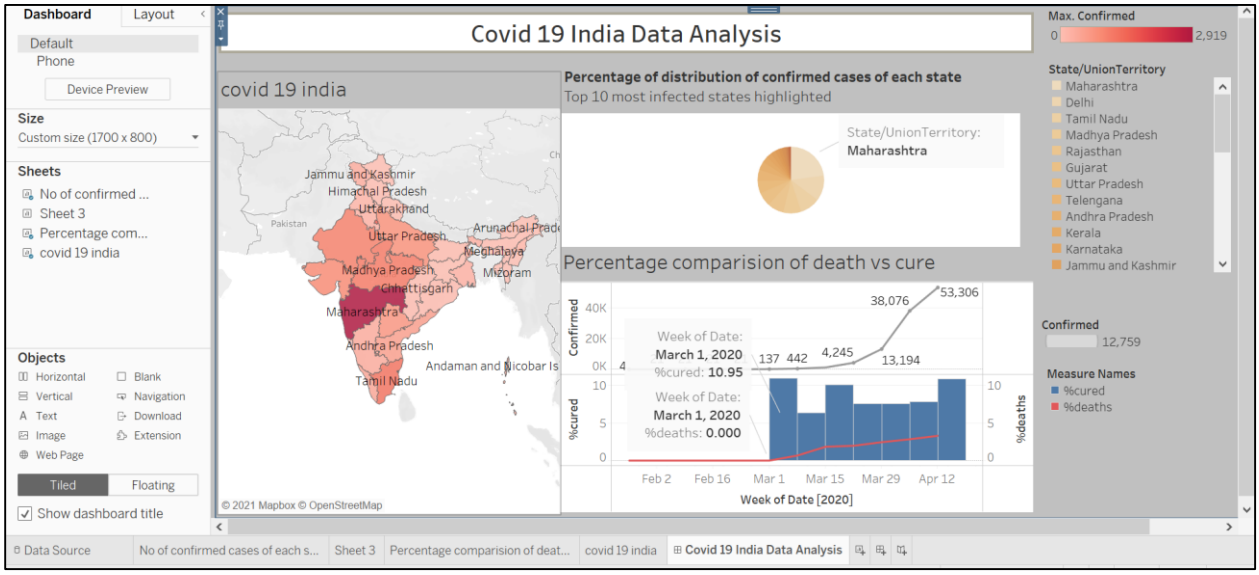
In this 3 dashboards I have imported three .csv files.

1) Covid_19_india.csv
2) HospitalBedsinIndia.csv
3) Population_india_census2011.csv

I have used inner join to extract relevant features from all the dataset so I can work on my dashboards and perform more of visualization.

For this I have imported Covid India dataset online. I have made three dashboards using various visualization tools to depict and extract various features.

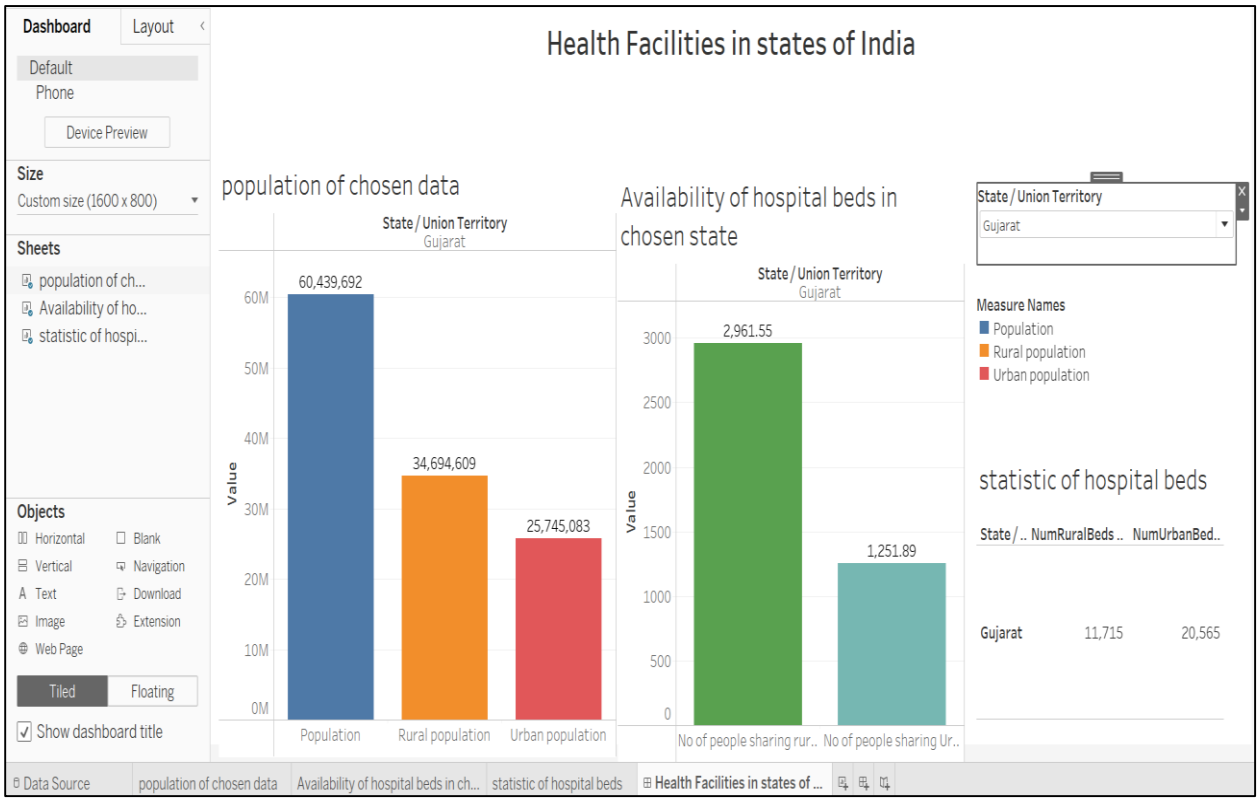
1st Dasboard : Covid 19 India Data Analysis



In first Dashboard I have done three visualizations.

1) **Covid 19 India Map visualization** : In this I have used map graph to plot the the highest covid 19 spread across the nation. The colour shading is applied to get better understanding of the view.
2) **Percentage of distribution of confirmed cases of each state** : For this I have used Pi chart so as easily we can identify how much percentage of total infected persons are there.
3) **Percentage of Comparison of death vs cure:** For this I have merged and synchronize cured and deaths in one scenario where estimated cured is shown using bar graph and red line symbolizes percentage of cured using given time.Confirmed cases has a different line graph that indicates number of cases risen from the given period of time.

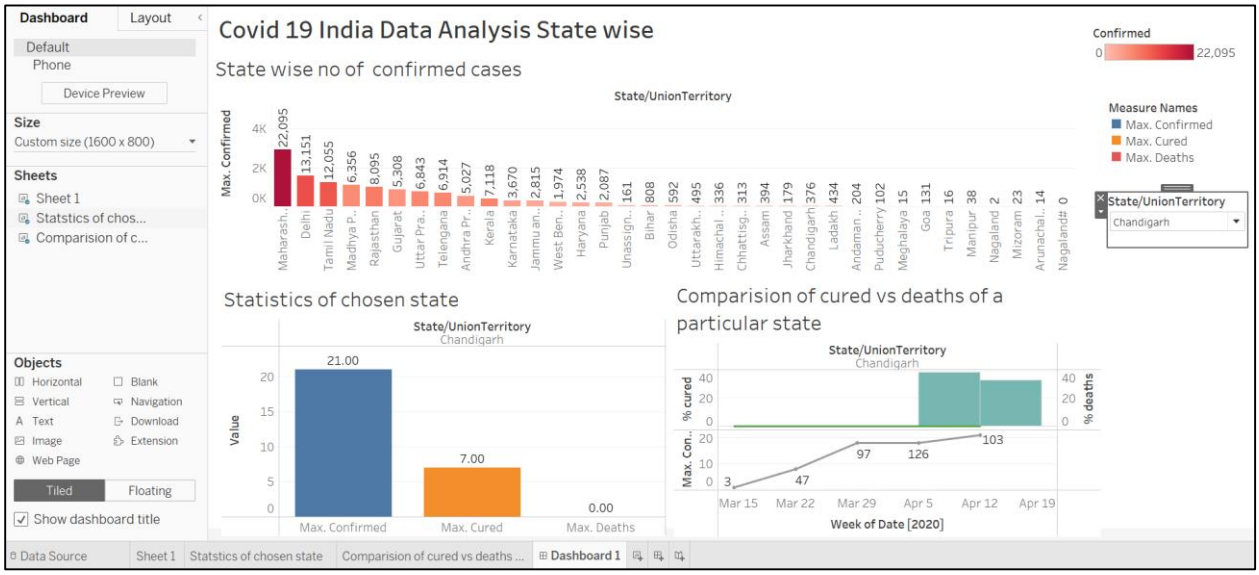
2nd Dashboard – Health Facilities in states of India



In this I have done three visualizations and are internally related. From this dashboard one can select any state and one can have idea of how much population persists of rural and urban population and availability of hospital beds in Chosen state. Also I have used tabular visualization to get exact number of available beds in given state.

1) **Population of Chosen area** : For this I have chosen Bar graph with annotation that symbolizes the number of population based on rural and urban population.
2) **Availability of Hospital beds in Chosen State**: This Bar graph states number of available beds in particular state.
3) **Statistic Of Hospital Beds:** This is a tabular visualization that determines exact count of the number of available beds in the given state.

3rd Dasboard: Covid 19 India Data Analysis Sate Wise



1) **State wise no of confirmed Cases :** In this I have attributed number of cases which are confirmed. I have used bar graph as the visualization graph where I have used colour gradation and sorted from highest to lowest along with giving markers to define the exact number of confirmed corona cases in state.
2) **Statistics Of Chosen State:** When you chose a state from the dropdown that is taken into consideration you will get the values of max confirmed and max cured cases in the given state. This I have visualized using a bar graph.
3) **Comparison of cured vs deaths of particular state:** This graph symbolizes the maximum number of confirmed cases along with percentage of cured vs percentage of deaths in a single graph. For number of percentage of cured I have used bar graph and for percentage of deaths I have used line graph. I have plotted it against the weekly format where the numbers are shown per week format.

I have also completed the Tableau certificate for my internal learning and then try to implement this on my own datasets sand visualization visualation. I have used the datasets and tried to make analysis and visualization recreating what taught in this course.

Below is the screenshot of certificate.