15XD88 –ADVANCED ANALYTICS

Title	**COVID 19 Dashboard focusing on INDIA AND TN**
Link to the file	https://github.com/Aswath98/COVID19
Domain	**SARS-CoV-2**
Roll Number & Name	**16PD05 – Aswath Rao & 16PD28 – Ridhanya**
Tools used	**Power BI**
References	**Power BI Documentation, Stackoverflow**
Data Source	https://api.covid19india.org/csv/

Background

Corona Virus

- Corona viruses are **zoonotic** viruses (means transmitted between animals and people)
- Symptoms include from fever, cough, respiratory symptoms, and breathing difficulties.
- In severe cases, it can cause pneumonia, severe acute respiratory syndrome (SARS), kidney failure and even death.
- Corona viruses are also **asymptomatic**, means a person can be a carrier for the infection but experiences no symptoms

Novel corona virus (nCoV)

- A **novel coronavirus (nCoV)** is a new strain that has not been previously identified in humans.

COVID-19 (Corona Virus Disease 2019)

It is an infectious disease caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2).The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 corona virus pandemic. The 2019 novel corona virus (2019-nCoV), is not that same as the corona viruses that commonly circulate among humans and cause mild illness, like the common cold.

A diagnosis with corona virus 229E, NL63, OC43, or HKU1 is not the same as a 2019-nCoV diagnosis. These are different viruses and patients with 2019-nCoV will be evaluated and cared for differently than patients with common corona virus diagnosis.

Package Description

This project ultimate objective focuses on understanding the COVID19 patterns with respect to India and Tamil Nadu, visualizing in the form of Dashboards with the help of Power BI

Data

Data is directly loaded from web in the form of CSV to Power BI. It has 6 CSV files.

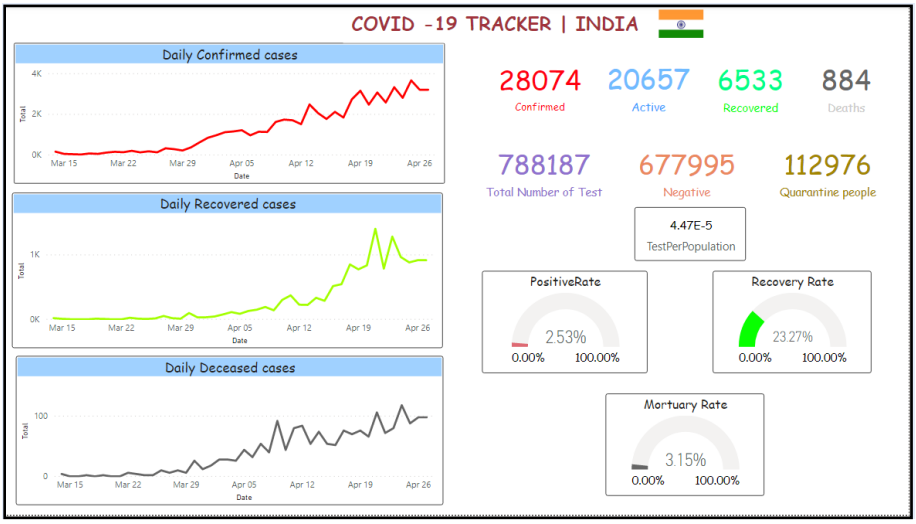
Data link - https://api.covid19india.org/csv/

Key features

- Updates very frequently
- Patient details and Key metrics
- Q/N bot
- Forecasting daily cases
- Survival analytics and probability using Kaplan Meiyer

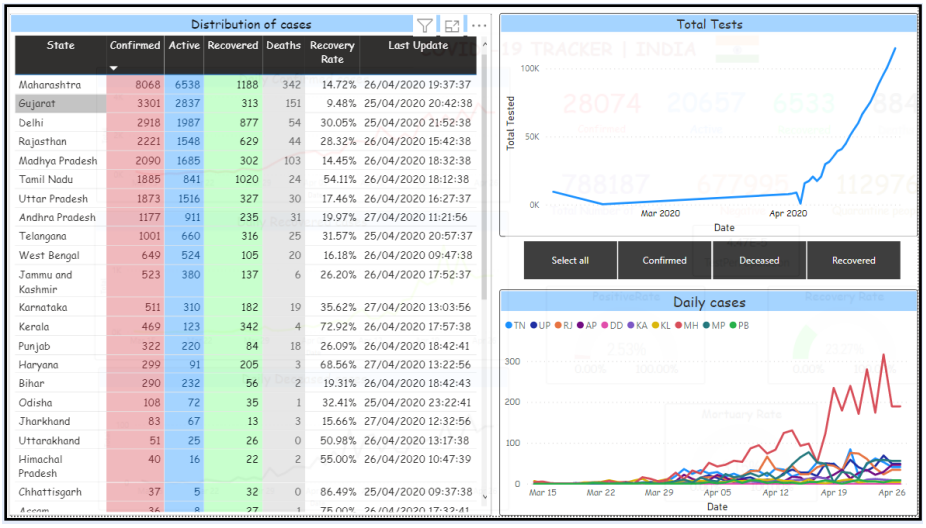
Dashboard

1. India



- Dashboard shows the Daily Confirmed, Recovered and Deceased cases of India from the first case on March 15th
- It also provides the total number of test taken so far in India, negative count and number of people under Quarantine.
- Positive Rate is the average of positive rates of different states in India (Numbers may mismatch due to non availability of data)
- Recovery Rate is number of patients recovered from COVID 19 by the total affected in India.
- Mortuary Rate is number of patients deceased from COVID 19 from the total affected in India.

2. India – State wise



State	Confirmed	Active	Recovered	Deaths	Recovery Rate	Last Update
Maharashtra	8068	6538	1188	342	14.72%	26/04/2020 19:37:37
Gujarat	3301	2837	313	151	9.48%	25/04/2020 20:42:38
Delhi	2918	1987	877	54	30.05%	25/04/2020 21:52:38
Rajasthan	2221	1548	629	44	28.32%	26/04/2020 15:42:38
Madhya Pradesh	2090	1685	302	103	14.45%	26/04/2020 18:32:38
Tamil Nadu	1885	841	1020	24	54.11%	26/04/2020 18:12:38
Uttar Pradesh	1873	1516	327	30	17.46%	26/04/2020 16:27:37
Andhra Pradesh	1177	911	235	31	19.97%	27/04/2020 11:21:56
Telangana	1001	660	316	25	31.57%	25/04/2020 20:57:37
West Bengal	649	524	105	20	16.18%	26/04/2020 09:47:38
Jammu and Kashmir	523	380	137	6	26.20%	26/04/2020 17:52:37
Karnataka	511	310	182	19	35.62%	27/04/2020 13:03:56
Kerala	469	123	342	4	72.92%	26/04/2020 17:57:38
Punjab	322	220	84	18	26.09%	26/04/2020 18:42:41
Haryana	299	91	205	3	68.56%	27/04/2020 13:22:56
Bihar	290	232	56	2	19.31%	26/04/2020 18:42:43
Odisha	108	72	35	1	32.41%	25/04/2020 23:22:41
Jharkhand	83	67	13	3	15.66%	27/04/2020 12:32:56
Uttarakhand	51	25	26	0	50.98%	26/04/2020 13:17:38
Himachal Pradesh	40	16	22	2	55.00%	26/04/2020 10:47:39
Chhattisgarh	37	5	32	0	86.49%	25/04/2020 09:37:38

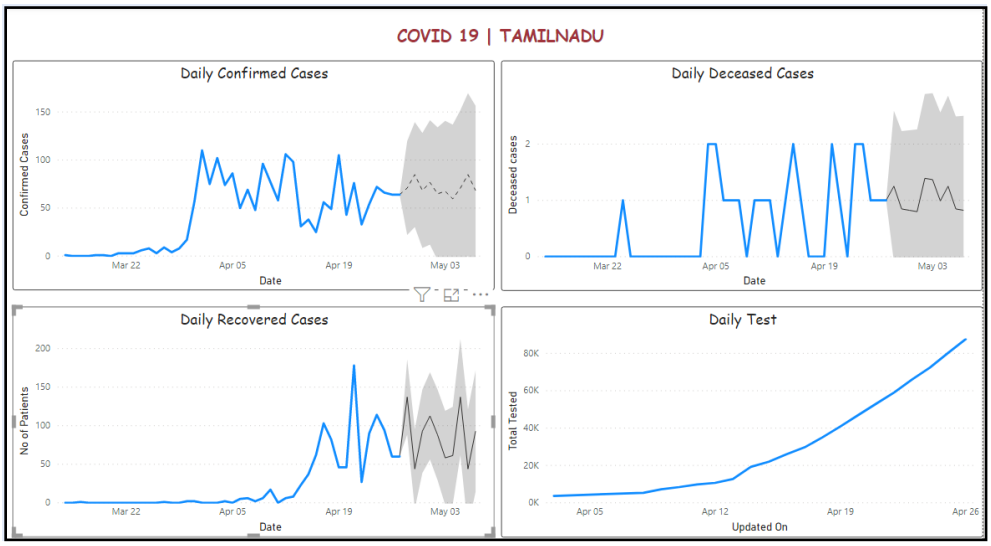
- Dashboard shows Conformed, Active, recovered , recovery rate and last updated Date for various states in India
- The graph at top right shows the trend of total number of test taken
- The graph at bottom right shows the trend of daily cases of states in India

3. Patient details – Filter by state and district

Patient Number	Age Bracket	Contracted from which Patient (Suspected)	Current Status	Date Announced	Detected City	Gender	Nationality	Notes	Source_1	State Patient Number	Status Change Date	Type of transmission
71	27		Recovered	Thursday, March 12, 2020	Nellore	M	India	Travelled from Italy on March 6th		AP-P1	Wednesday, April 1, 2020	Imported
176	24		Hospitalized	Thursday, March 19, 2020	Ongole	M	India	Travelled from UK		AP-P2	Thursday, March 19, 2020	Imported
196	65		Recovered	Thursday, March 19, 2020	Visakapatnam	M	India	Travelled from Saudi Arabia on 12 Mar		AP-P3	Sunday, March 29, 2020	Imported
330	22		Hospitalized	Saturday, March 21, 2020	Rajahmundry	M	India	Travelled from UK		AP-P4	Saturday, March 21, 2020	Imported
331	24		Hospitalized	Saturday, March 21,	Vijayawada	M	India	Travelled from Paris		AP-P5	Saturday, March 21,	Imported

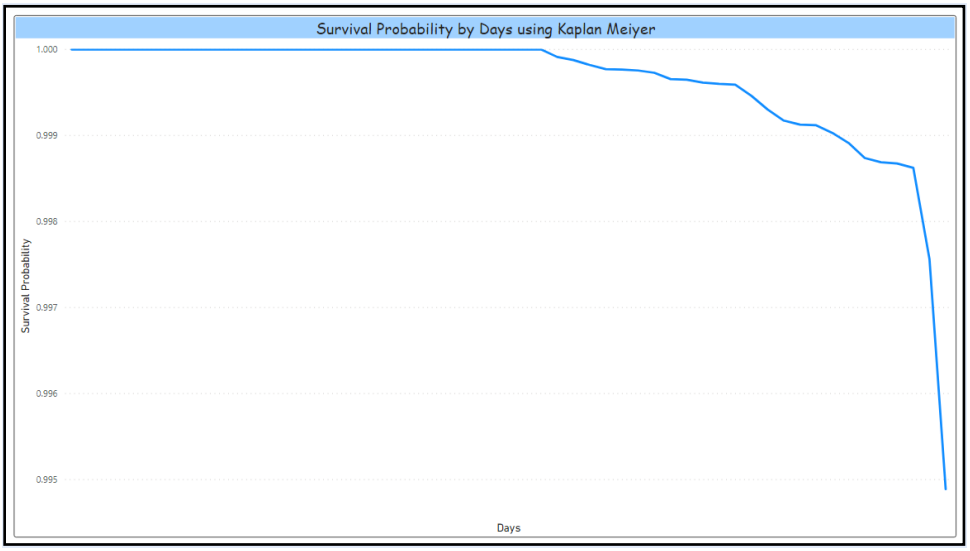
- Dashboard shows the distribution of age of affected people and their gender along with the survival probability.
- The bottom table shows the details of affected people and web link of conformation given my ministry of respective state governments.
- Various states and districts can be filtered with the help of slicers available.
- This also shows current confirmed cases and population

4. Tamil Nadu



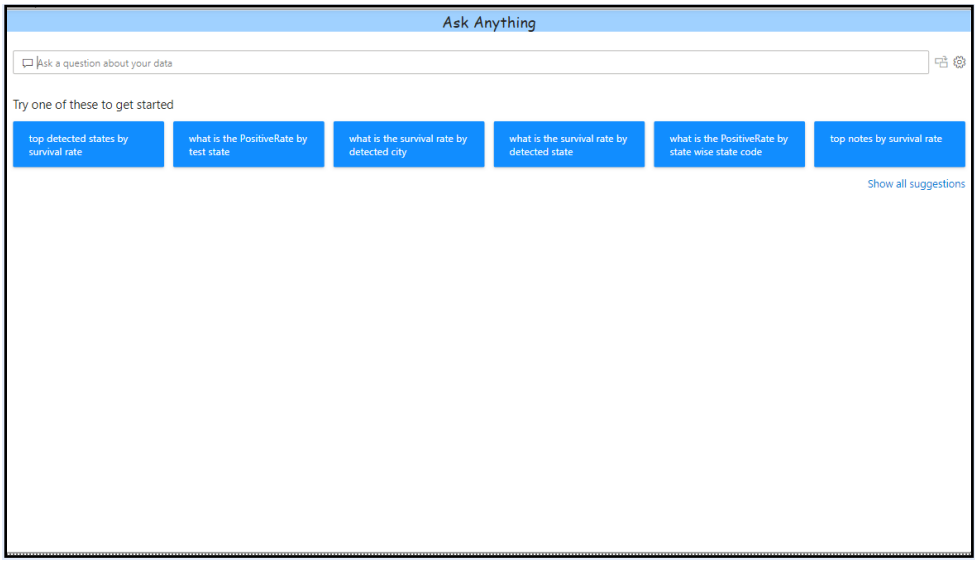
- Dashboard shows trend of Conformed, Active, recovered and their next 10 days forecasting

5. Survival Analysis



- The survival probability of people is calculated using Kaplan Mayer and survival graph is plotted.
- This is done by using Kaplan Mayer formula with the help of measures created using DAX in Power BI

6. Q/N bot



- This is a Question and answer bot, fetches answers for the questions we ask for.
- Trained with multiple possible questions and answers.
- For example if we ask for, state with highest number of cases it will fetch the state with more number of confirmed cases.

7. Conclusion