KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
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MICRO PROJECT

TITLE : COVID-19 IN INDIA DASHBOARD ANALYSIS USING TABLEAU

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Abstract:

The global challenge posed by the Covid -19 pandemic has prompted nations, including India, to implement innovative strategies for monitoring and responding to this unprecedented public health crisis. In response, a comprehensive dashboard analysis has been developed to consolidate critical data from across the country. The dashboard's initial focus on a geographically visualized map, depicting total deaths by state, provides a quick and insightful assessment of the pandemic's impact. It also sheds l ight on demographic nuances, revealing the disproportionate impact on the 20 -29 and 30 -39 age groups. Additionally, the dashboard addresses testing infrastructure by showcasing the number of ICMR testing labs in various states, emphasizing the importance of early detection and containment efforts.

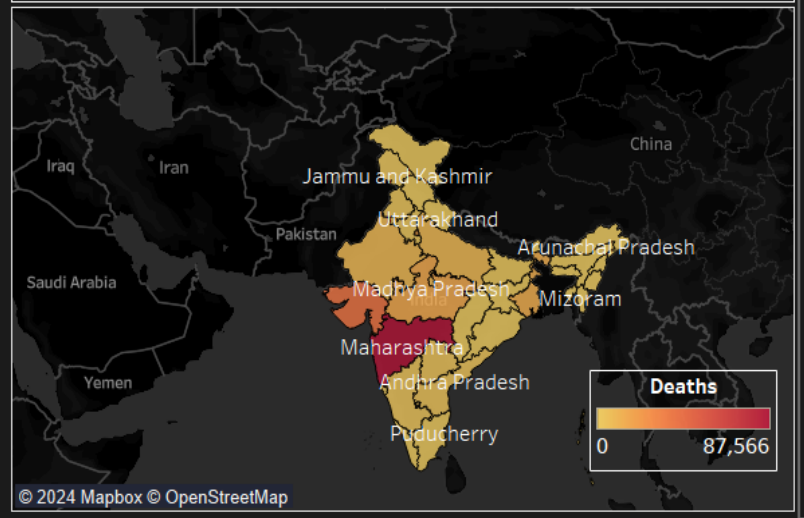
COVID-19 Situation in India: An Overview

- The COVID-19 pandemic has had a profound impact on India, one of the world's most populous nations. Since the first cases were reported in early 2020.
- This comprehensive dashboard provides a detailed snapshot of India's battle against the viral outbreak, encompassing critical metrics such as case numbers, testing efforts, age and gender distributions, vaccination progress, and regional variations.

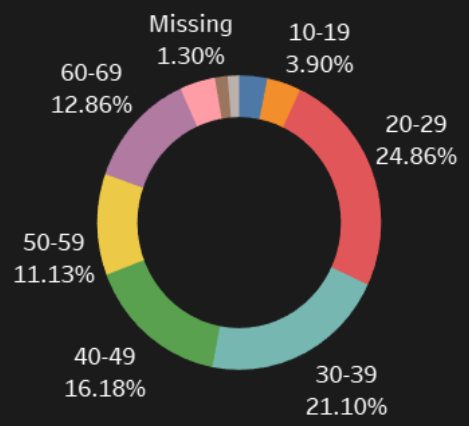
Key Highlights:

- Total Confirmed Cases
- Total Recoveries
- Total Deaths:
- Testing Capacity
- Vaccination Drive:

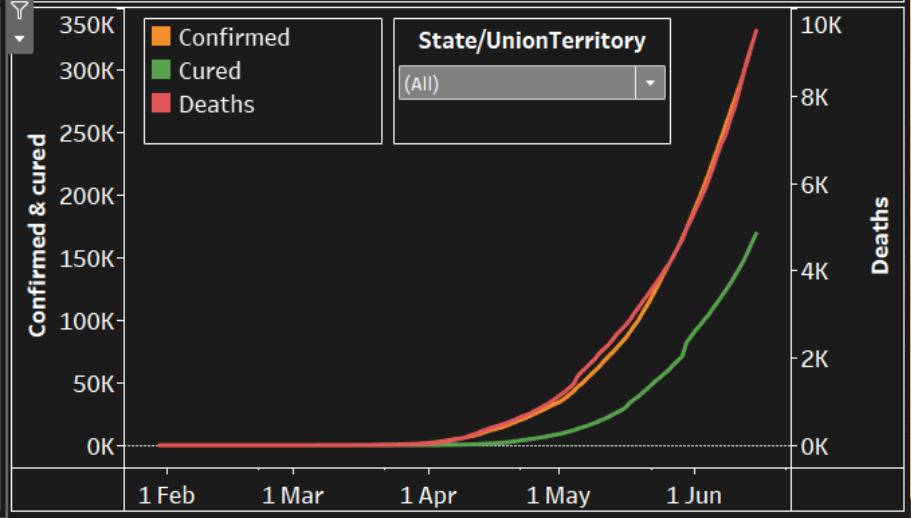
Map: total deaths by state



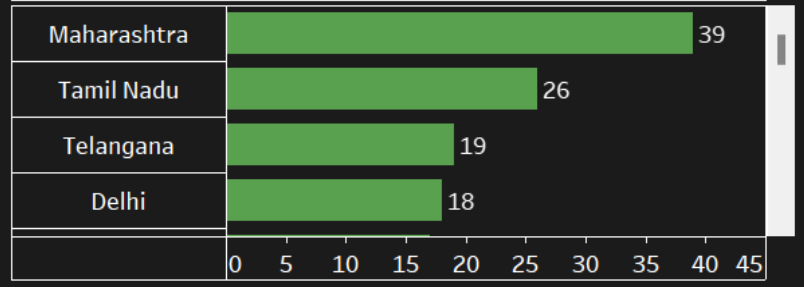
Age Group Details



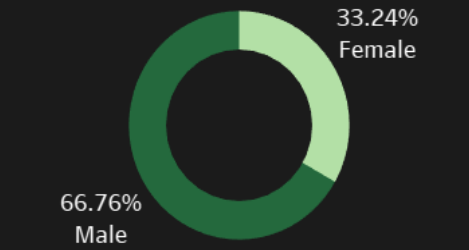
Covid cases by state



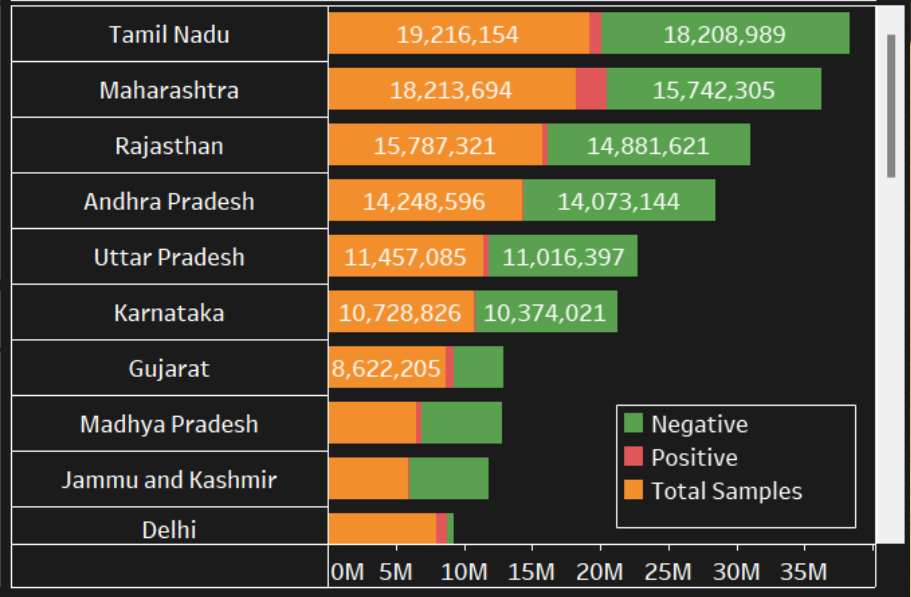
ICMR Testing Labs in each state



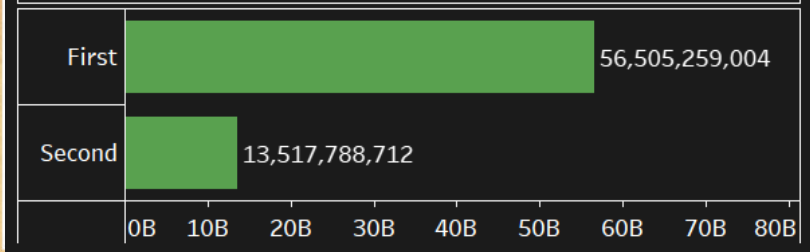
Gender without missing values



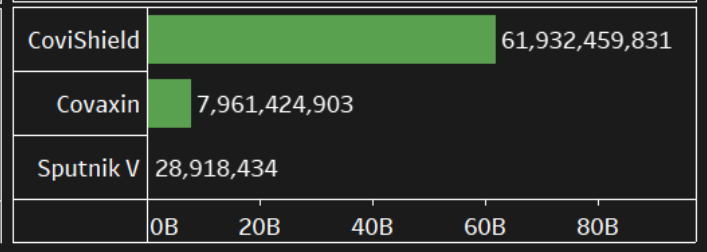
Statewise Testing Details



First vs Second dose administrated

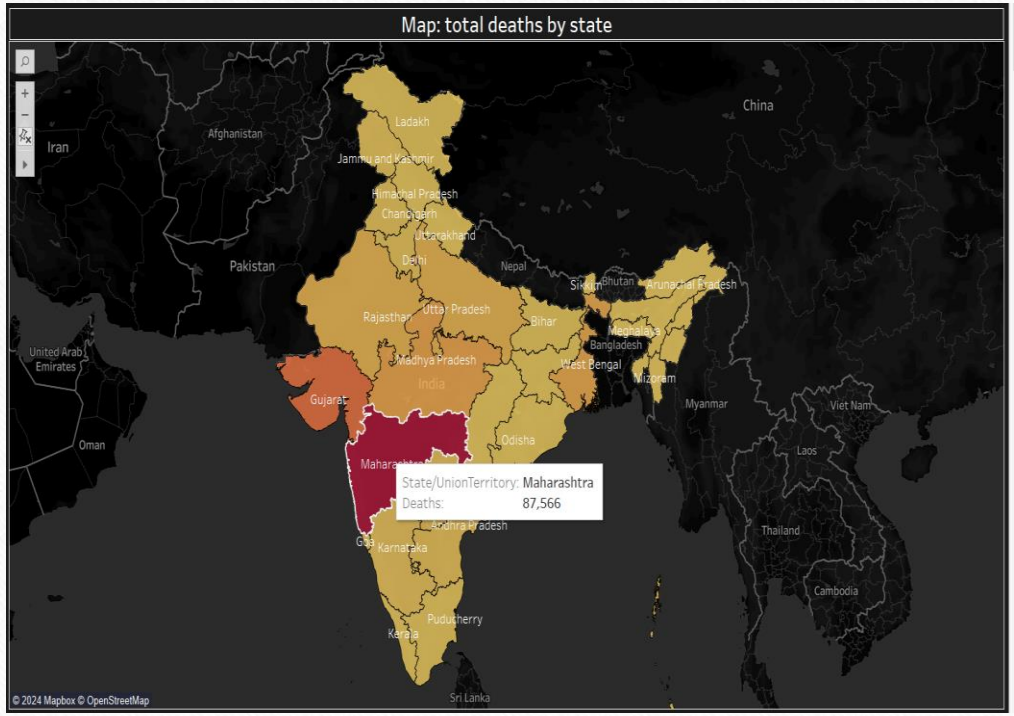


Doses administrated by vaccine



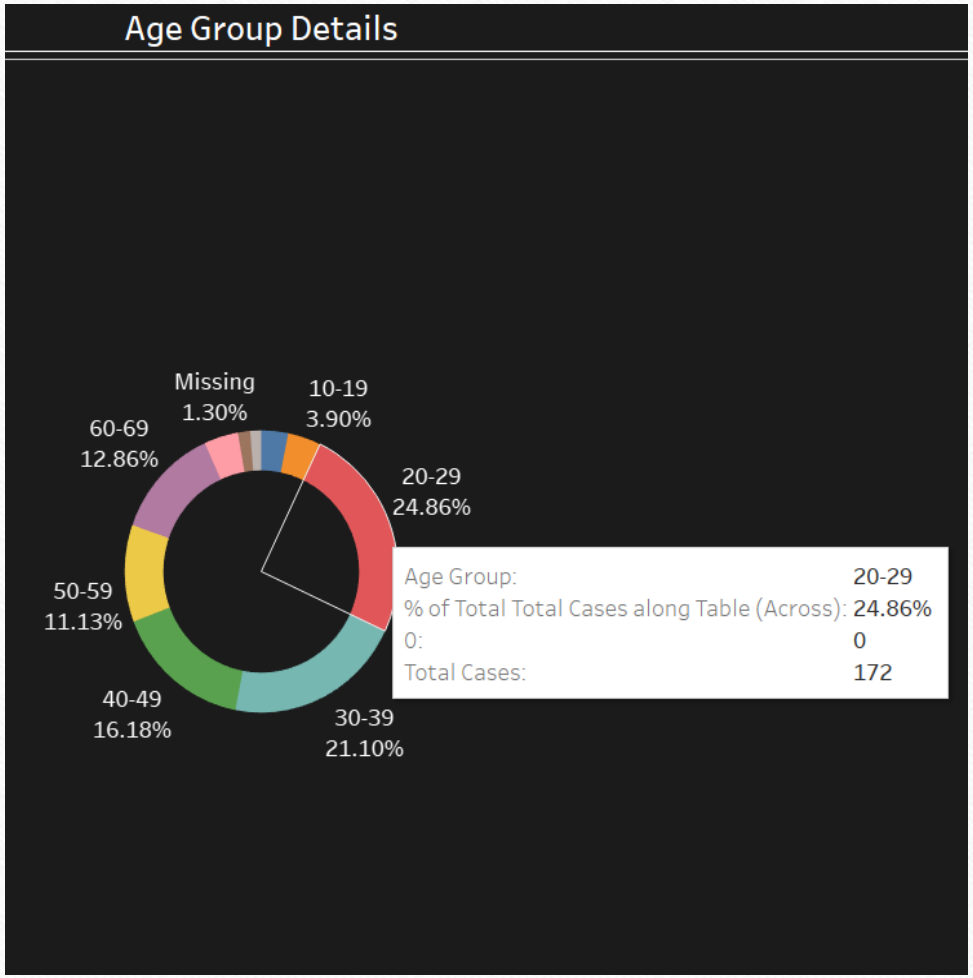
Mapping the Impact: State-wise Death Toll

- The map visually depicts the stark disparities in the total number of COVID-19 deaths across different states and union territories in India.
- The color-coded map allows for easy identification of states or regions that have experienced a particularly high number of COVID-19 fatalities.



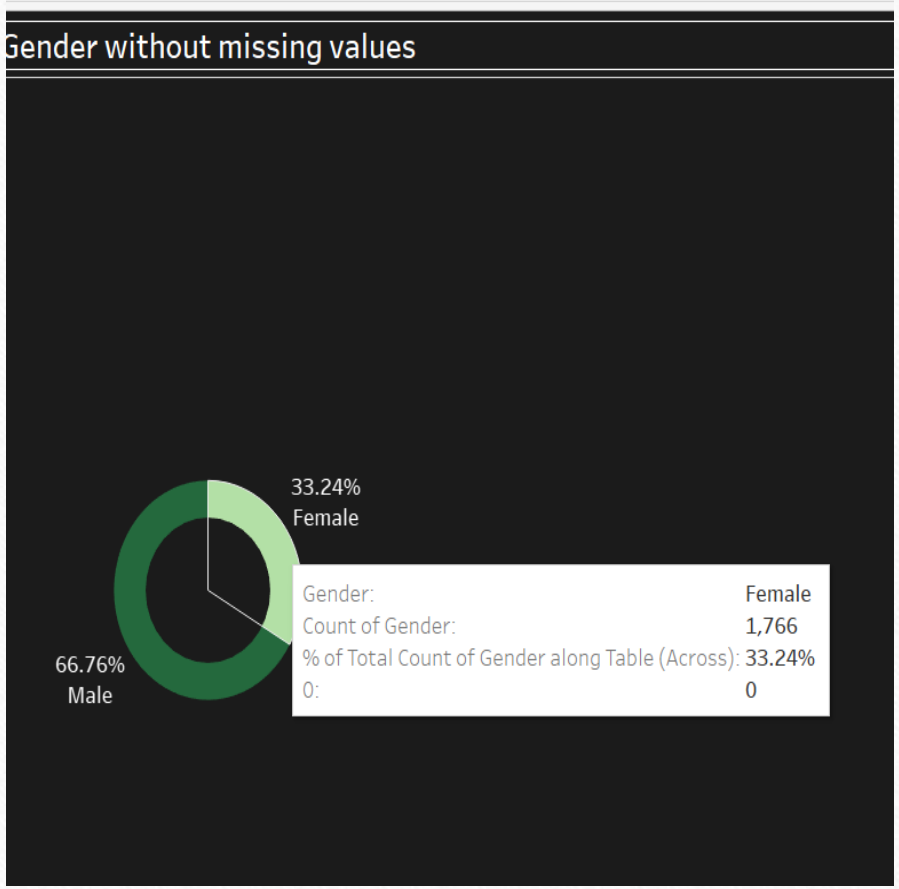
Age Group Analysis: Vulnerable Populations

- Most Affected Age Group: Adults aged 25-45 experienced the highest number of COVID-19 cases.
- Highest Mortality Rates: Individuals over the age of 65 exhibited the most significant risk, with the highest COVID-19 related death rates.
- Vulnerability: The very young (under 5) and the elderly (over 65) were the most vulnerable to severe complications and death from COVID-19.
- Trends Over Time: While the 25-45 age group remained the most affected throughout the pandemic, infection rates among the elderly significantly decreased over time.



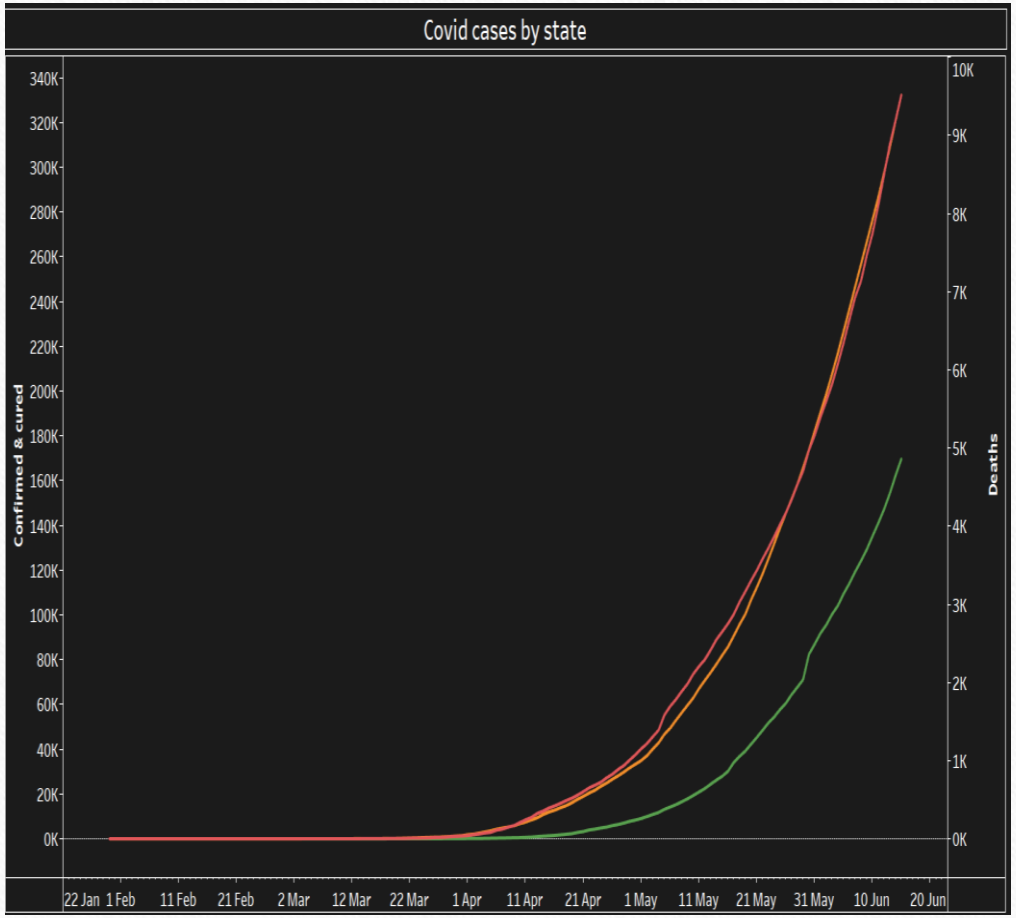
Gender Without Missing Values

- Gender Breakdown: Clearly state the percentage of confirmed COVID-19 cases in India for each gender (Male and Female).
- Predominant Gender: Clearly indicate whether males or females had a higher number of confirmed COVID-19 cases in India.
- Briefly mention how the gender distribution of COVID-19 cases compares to the overall gender distribution of the population in India. This can help contextualize whether one gender was disproportionately affected.



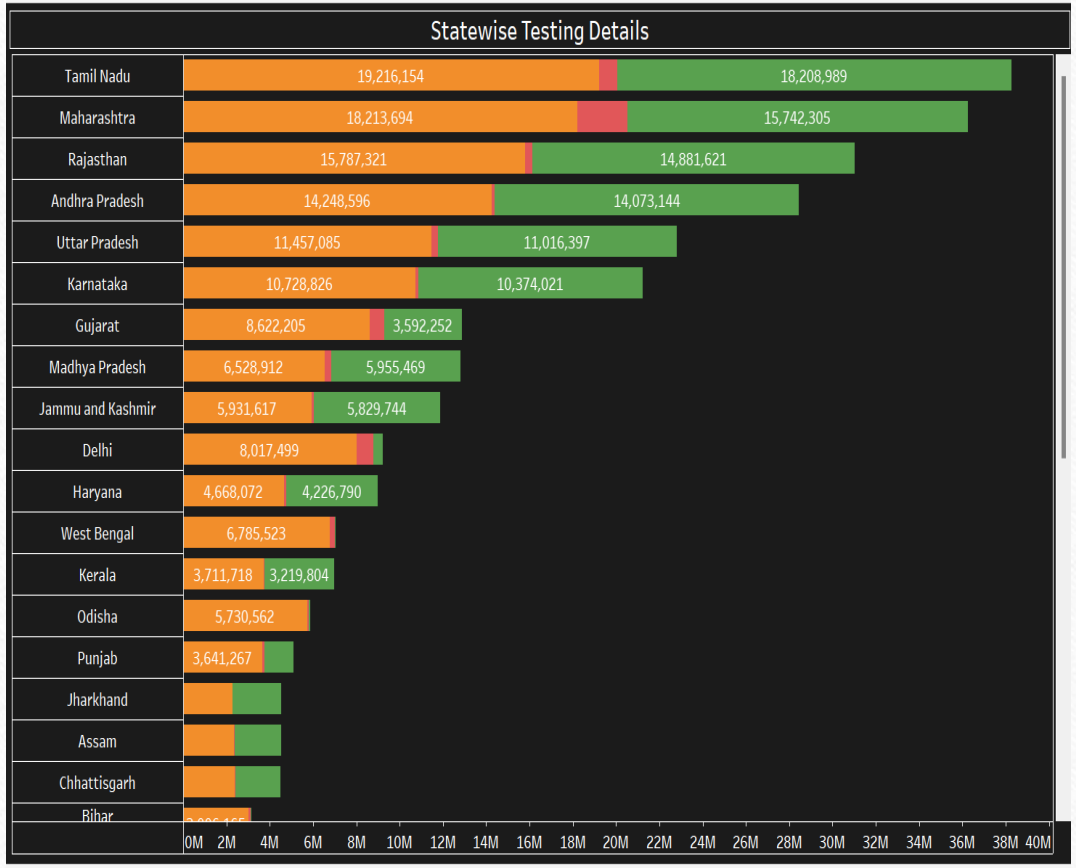
Covid cases by states

- Top Affected States: Identify the states with the highest number of confirmed COVID-19 cases, the more cases recorded in the year 2020 JUN 16.
- Comparison to National Average: we Analyzed how the caseloads in individual states compare to the national average number of confirmed COVID-19 cases in India.



State wise testing deatils

- Most Tests Conducted: Identify the states that have conducted the highest number of COVID-19 tests. Be clear if this is absolute numbers or tests per capita.
- Least Tests Conducted: Similarly, identify the states with the lowest number of tests.
- Testing Capacity vs. Population: Explore the relationship between a state's testing capacity and its population size.



About the Tableau application

- Tableau is a powerful data visualization and business intelligence tool that enables users to transform complex data sets into interactive and visually appealing dashboards and reports.
- In this project, Tableau was employed to analyze and present insights from the credit card transaction data, leveraging its robust capabilities in data exploration, visualization, and storytelling.
- The choice of Tableau was strategic, as it offers a user-friendly interface and a wide range of visualization options, making it ideal for creating dynamic and intuitive dashboards.

Conclusion

This in-depth analysis of COVID-19 data in India revealed several significant patterns. The pandemic had a disproportionate impact on the 25-45 age group, with this demographic experiencing the highest number of confirmed cases. Additionally, a concerning gender disparity emerged, showing a higher infection rate among males compared to females. Furthermore, statewise testing data exposed significant variations, highlighting potential gaps in testing capacity across different regions of the country.

While this analysis provides valuable insights, further research is needed to address existing data limitations and explore the underlying reasons for the observed disparities.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