

# Developing and Analyzing COVID-19 Process

In developing the COVID-19 dashboard, The process began with selecting the most effective visualizations to convey different aspects of the pandemic. I chose a mix of graphs—forecast, horizontal bar chart, stacked bar chart, line chart, and single value chart—each designed to offer unique insights into the data.

The **Forecast Graph** was created to project future COVID-19 trends based on past and current data. The goal was to provide users with a reliable glimpse into potential future scenarios, helping them prepare for what might come next with a focus on achieving a 95% precision rate.

The **Horizontal Bar Chart** was designed to present a snapshot of the current situation, displaying counts of laboratory-confirmed cases, probable cases, and deaths. This chart was chosen for its simplicity and clarity, allowing users to quickly grasp the immediate impact of the pandemic.

For understanding the impact across different age groups, the **Stacked Bar Chart** was employed. This chart breaks down death counts by age group, offering insights into how the pandemic has affected various demographics. Creating this chart involved categorizing and aggregating data by age groups, which was crucial for highlighting the disparate impact of COVID-19 on different generations.

The **Line Chart** tracks the progression of COVID-19 cases over time, incorporating both historical data and future forecasts. The line chart's primary purpose was to show how the situation has evolved and what might be expected in the future.

Lastly, the **Single Value Chart** displays the highest number of deaths recorded.

During the **development process**, Ensuring data accuracy and consistency was a major challenge. Additionally, balancing the level of detail with readability was crucial; too much information could overwhelm users, while too little could obscure important insights.

During the creation of the dashboard, several data-related **challenges** were encountered, particularly with missing values in the death rate and gender data. These gaps in the dataset necessitated careful handling to ensure the integrity and accuracy of the visualizations.

From the dashboard, I derived several key **insights**. The forecast graph revealed potential future trends, highlighting the importance of ongoing monitoring. The horizontal bar chart underscored the current severity of the pandemic, while the stacked bar chart illustrated the varied impact on different age groups. The line chart provided a clear view of the pandemic's progression, and the single value chart emphasized the critical human toll.

My chosen **audience persona** for this dashboard was a public health analyst or policy maker, someone who needs to quickly understand both the current state and future projections of COVID-19 to make informed decisions. This persona benefits from clear, concise visuals and the ability to filter data based on specific criteria, enabling targeted analysis.

Overall, the assignment **improved my skills** in data visualization and also enhanced my ability to communicate complex information effectively. The dashboard's interactive features and thoughtful design ensure that users can extract meaningful insights, supporting better decision-making and strategic planning in response to the pandemic.

## Detailed Dashboard Explanation:

Dashboard is designed to make understanding of the pandemic's past, present, and future easier and clearer.

Our first stop is the Forecast Graph. Here, you see a blend of past and present COVID-19 cases along with future predictions. It's like having a sneak peek into how things might unfold, with a high level of confidence in the forecast.

Next, we check out the Horizontal Bar Chart. This chart gives you a straightforward look at the current numbers: confirmed cases, probable cases, and deaths. It's a snapshot that helps you quickly grasp the situation as it stands right now.

Then, we move to the Stacked Bar Chart, which breaks down death counts by age group. This chart shows how different age groups have been affected by the pandemic, giving a clearer picture of its impact across various generations.

The Line Chart follows, showing COVID-19 cases over time. It connects the dots between past data, current trends, and future predictions, helping you see how things have changed and what might come next.

Finally, the Single Value Chart highlights the highest number of deaths recorded. It's a powerful figure that brings the human cost of the pandemic into focus.

Throughout the journey, users can interact with the dashboard. Choose different months and years or switch between confirmed and probable cases to see how the data

changes. This flexibility makes it easier to get the information the user needs and understand the full scope of the pandemic.