

Nico Hillison

## Project 1 - ApexCharts using JavaScript

ApexCharts is a popular JavaScript library for creating interactive and visually appealing charts and graphs for web applications and data visualization. It is designed to be easy to use and highly customizable, making it a preferred choice for developers who need to display data in a clear and engaging manner. Here are some key features and characteristics of ApexCharts:

1. **Interactive Charts:** ApexCharts allows you to create various types of interactive charts, including line charts, bar charts, pie charts, and more. Users can interact with the charts, such as zooming, panning, and hovering to view data points.
2. **Rich Configuration Options:** The library provides an extensive set of options to customize every aspect of the chart, from colors and labels to grid lines and tooltips. This flexibility enables developers to tailor the charts to their specific design and data requirements.
3. **Responsive Design:** ApexCharts is designed to be responsive, meaning the charts can adapt to different screen sizes and devices, ensuring a consistent and user-friendly experience on desktop and mobile platforms.
4. **Real-time Data Support:** You can update ApexCharts with real-time data by simply providing new data points or series, making it suitable for applications that require dynamic data visualization.
5. **Animations:** The library supports animations for smooth transitions when rendering or updating data, enhancing the user experience and helping users better understand data changes.
6. **Support for Multiple Chart Types:** ApexCharts supports a wide range of chart types, such as area charts, candlestick charts, radar charts, and more. This variety makes it versatile for different data representation needs.
7. **Integration with Frameworks:** It can be integrated with popular JavaScript frameworks and libraries, including React, Vue.js, and Angular, making it convenient for developers working within those ecosystems.
8. **Data Labels and Tooltips:** You can add data labels and tooltips to help users understand data points and values easily.
9. **Export and Print:** ApexCharts provides functionality for exporting charts as images or PDFs and also allows for printing directly from the web page.

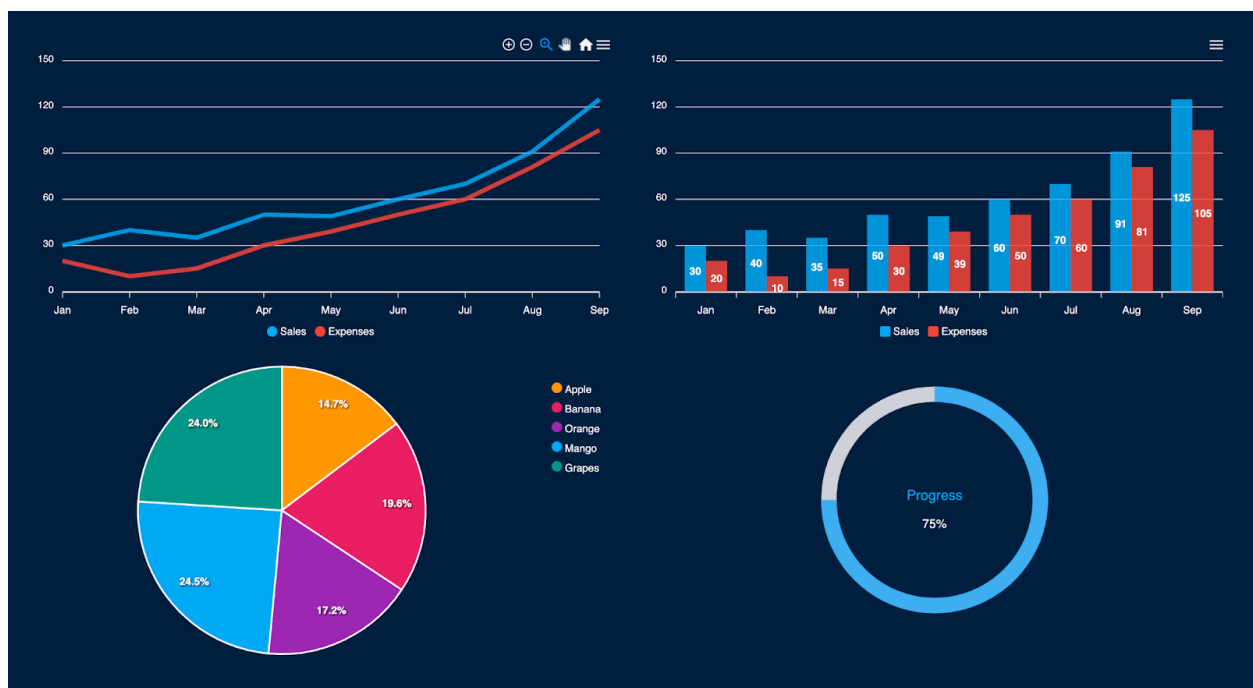
10. Open Source and Community Support: ApexCharts is an open-source project, and it has an active community of developers who contribute to its development and provide support through forums and documentation.

In summary, ApexCharts is a versatile and powerful JavaScript library for creating visually appealing and interactive charts in web applications. Its extensive customization options, support for various chart types, and compatibility with popular JavaScript frameworks make it a valuable tool for data visualization projects.

I was able to make visualizations for a linechart, histogram and a bar chart using the javascript library ApexCharts. I believe good examples and show how visually appealing as well as simplistic as they could be.

First, I created different charts individually and then learned how to create dashboards. I made a dashboard! 2x2 grid so they look good together and I color coded them as well so they all have the same theme. I really like the “dark mode” theme so kind of went with that.

Here is a picture of the dashboard I created using the ApexCharts library:



This was made by hardcoding the data. Every graph is able to be saved into their own images and they are all interactive.

Because I made the dashboard hard coded, I wanted to make a softcoded graph. Using a csv file about cars, I created a private browser to represent an interactive bar chart. One can

change the amount of bars and choose what is wanted. One can save the graph they desire into an image format.

Here is the bar graph:

