Visualisation 2

Link: [Car Crashes in Australia (1998 to 2021) (luqmaanyurzaa.github.io)](https://luqmaanyurzaa.github.io/3179/)

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Dataset:

[Australian Fatal Road Accident 1989-2021 (kaggle.com)](https://www.kaggle.com/datasets/deepcontractor/australian-fatal-car-accident-data-19892021/)

Domain: The domain is about the car crashes that occurred in Australia from 1998 to 2021.

Why: The purpose of this visualisation is to educate the audience about how certain safety measures allow for safer roads

Who: The audience is the public mostly drivers and road lawmakers.

What: The data contains individual crashes that occurred in Australia from 1998 to 2021. The data contains information about the crash, the vehicle, the driver, the passengers, the road, the weather, the location, the time, and the holiday period among other things however not all attributes where used.

How: The idioms I have chosen to highlight the extent to which car crashes in Australia have been reduced in Australia.

Choropleth map: this idiom is used to showcase the difference in number of crashes from state to state in each year. It uses a slider that allows the viewer to go to a specific year and see these differences clearly. The colour theme uses red, yellow, and green to mimic the colours of a traffic light fitting the theme.

2D Histogram: The 2D histogram gives insight into the times of day that crashes occur in the different states. It uses a colourblind palette to make sure the colours are accessible.

Stacked bar Graphs: these graphs give insight into day of the week and the light conditions of the accidents and how this affects the rates of crashes. In the graph that has not been normalised we can see how the day affects the rates of car crashes. In the normalised graph we can better see how day or night affects these rates.

Line chart: this visualization showcases the same data as in the choropleth however is highlights the change in the rates of car crashes over time more than the differences between rates in individual years. We can see how each state has been able to reduce the number of car crashes and how quickly the rates have fallen. It uses the same colourblind palette as in the histogram to make sure the colours are accessible.

Layout: the page is split into two vertical columns which come of the visualisations spanning both columns. There is a clear visual hierarchy between the title of the page, the titles of the subheadings and the description. There is also clear proximity between related sections.

Colour: the colours for the different section are all colourblind friendly. The choropleth uses re[, yellow, green (traffic light) which fits the theme. The line chart and histogram use colours to show contrast between states and the colours in both the visualisation match by state. The background colour is a grey that reflets the grim nature of the topic at hand.

Typography: the font used is the default to ensure all users from all different browsers and devices are able to consume the information.

Storytelling: the user is guided through the page from top to bottom and left to right. By switching from left to right with the paragraphs in each row of information and images, it makes it more pleasant to read. Interesting facts and instructions are also bolded for users who may not have the time to read through everything

A screenshot of a graph

Description automatically generated

Image 1: <https://www.google.com/imgres?imgurl=https%3A%2F%2Fprod.static9.net.au%2F_%2Fmedia%2F2018%2F10%2F10%2F15%2F21%2Fcar-crashes-news-alerts.jpg&tbnid=_oF8jHm7czWJgM&vet=12ahUKEwiM3auQwP6BAxUiUGwGHWJaAAMQMygHegQIARB-..i&imgrefurl=https%3A%2F%2Fwww.9news.com.au%2Fcar-crashes&docid=aFQx21hlZKpkQM&w=900&h=444&q=car%20crash%20images&ved=2ahUKEwiM3auQwP6BAxUiUGwGHWJaAAMQMygHegQIARB->

Image 2 : <https://www.google.com/imgres?imgurl=https%3A%2F%2Fimageresizer.static9.net.au%2F5uLC8RO-hvaCBJgv4VrS4RY-t-4%3D%2F1200x675%2Fhttps%253A%252F%252Fprod.static9.net.au%252Ffs%252Ffc8a5d9d-8d37-4d71-901f-bc8868b4e07f&tbnid=VkEzrmEqkKaVYM&vet=12ahUKEwiM3auQwP6BAxUiUGwGHWJaAAMQMygKegUIARCEAQ..i&imgrefurl=https%3A%2F%2Fwww.9news.com.au%2Fnational%2Fstrathfield-six-car-crash-liverpool-road-traffic-sydney-news%2F8ee14d43-77f7-46dd-91af-5843e12ecd92&docid=e-dFhEbXzGm13M&w=1200&h=675&q=car%20crash%20images&ved=2ahUKEwiM3auQwP6BAxUiUGwGHWJaAAMQMygKegUIARCEAQ>

Image 3 :

<https://www.google.com/imgres?imgurl=https%3A%2F%2Fwww.mynrma.com.au%2F-%2Fmedia%2Fdriving-images%2Famber-yellow-traffic-lights.jpg%3Fh%3D360%26w%3D640%26hash%3Ddd8f997c30d467eeadfb3e355be8f22a&tbnid=g5IhCL-wbm1yRM&vet=12ahUKEwip-ZGuwP6BAxWh2zgGHXA9CjEQMygKegQIARB5..i&imgrefurl=https%3A%2F%2Fwww.mynrma.com.au%2Fcars-and-driving%2Fdriver-training-and-licences%2Fresources%2Fwill-i-get-fined-for-driving-through-an-amber-traffic-light&docid=sENyufMg9T3F5M&w=640&h=360&q=australia%20traffic%20lighs&ved=2ahUKEwip-ZGuwP6BAxWh2zgGHXA9CjEQMygKegQIARB5>