LAB EXERCISE DEMONSTRATION 2

COS30045 DATA VISUALIZATION

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COS30045 Data Visualization
Lab Exercise Demonstration 2

Hosting

http://105017157.infinityfreeapp.com/index.html

GitHub

https://github.com/Chakablaster/Main/tree/main/Lab

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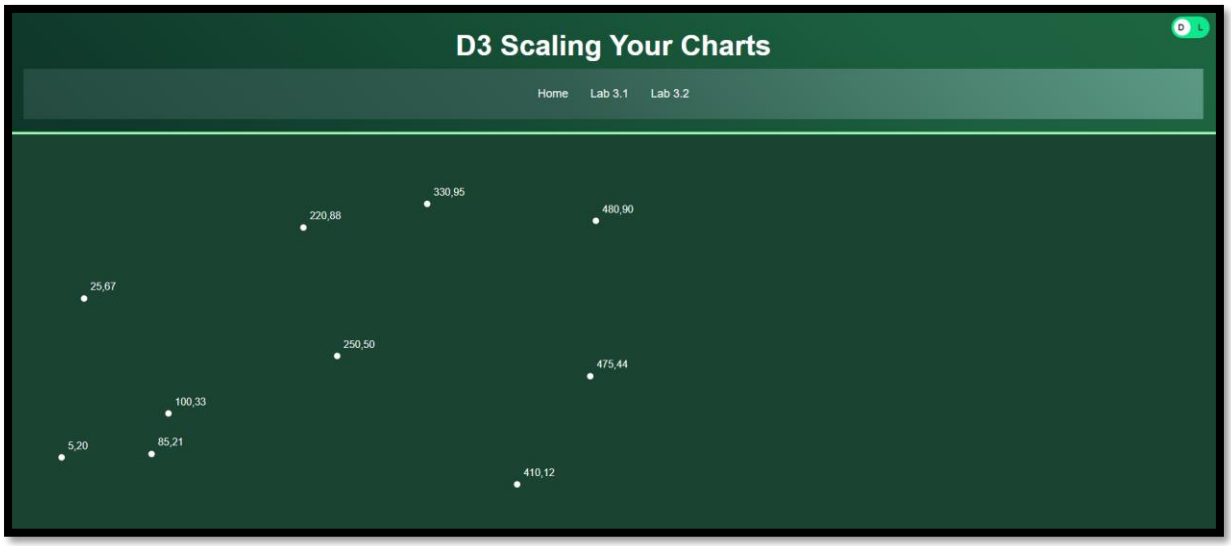
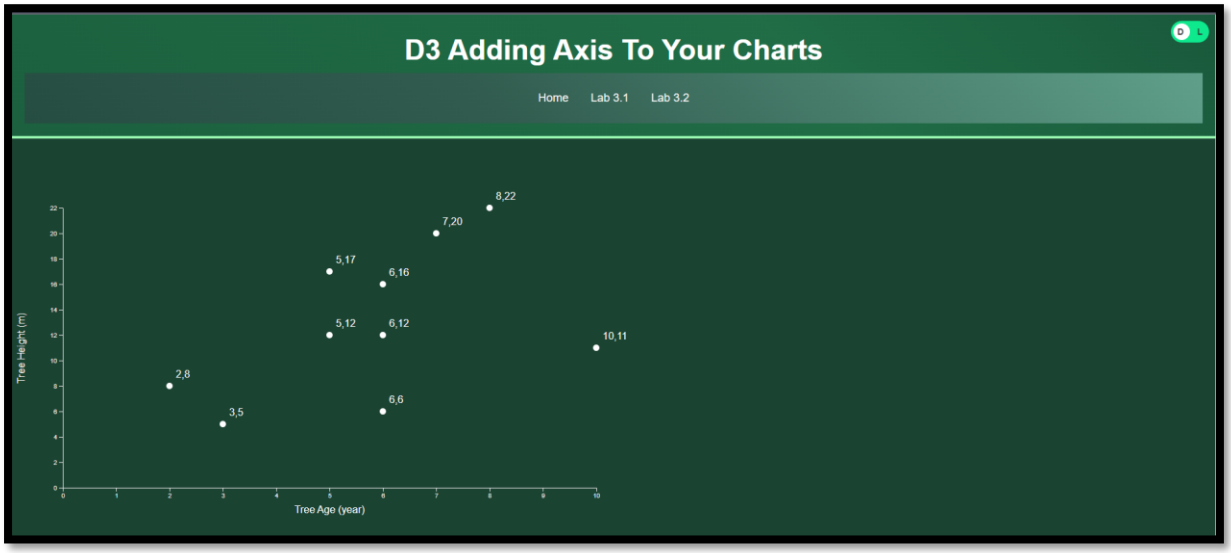
Lab 3

Lab 3.1



Lab 3.2



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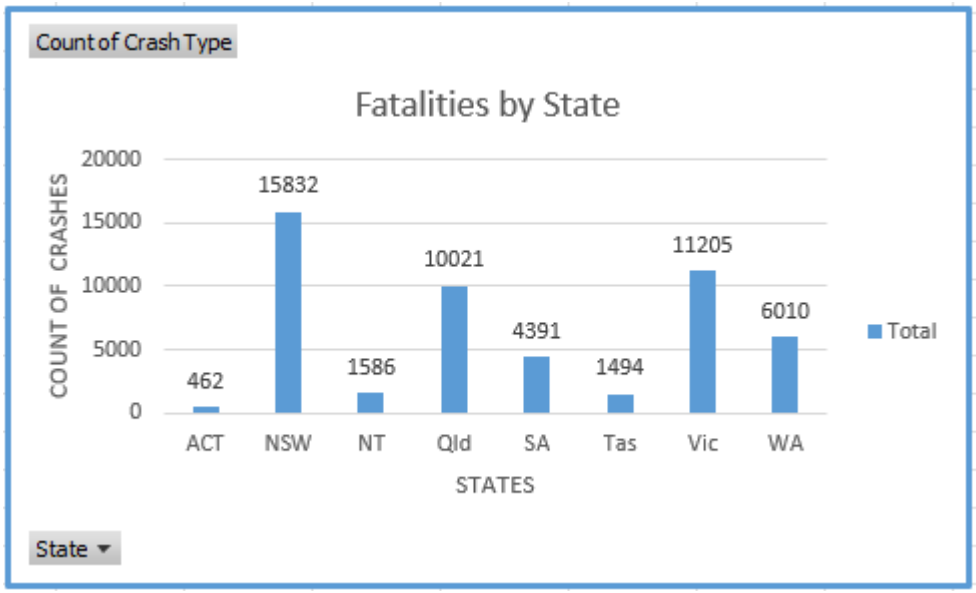
Lab 4

Lab 4.1

1. How do road fatalities vary by location (state or region)?

- **Data attributes needed:**
  - Column: "State" or "Region"
  - Column: "Number of fatalities"
- **Data transformation:**
  - Summarise the total number of fatalities by location.
  - No significant data type changes are needed, just an aggregation of fatalities for each location.
- **Visualisation sketch:**
  - A **choropleth map** or **bar chart** that shows the number of fatalities per state or region. The map could colour-code the severity, and the bar chart would list states in descending order of fatalities.



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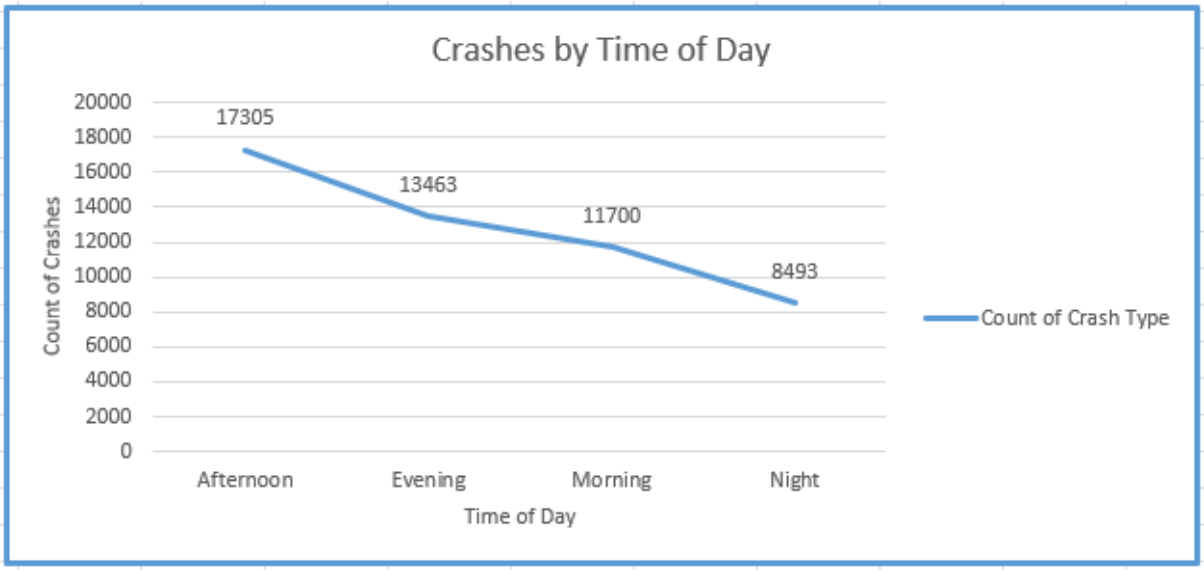
2. What time of day sees the most road fatalities?

- **Data attributes needed:**
  - Column: "Time of crash"
  - Column: "Number of fatalities"
- **Data transformation:**
  - Group the time of crashes into intervals (e.g., hourly or morning/afternoon/evening).
  - Transform the time data into categories like "morning," "afternoon," "evening" for easier visualisation.
- **Visualisation sketch:**
  - A **line graph** or **histogram** showing fatalities on the Y-axis and time intervals on the X-axis, illustrating peak times for crashes.



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3. What types of crashes lead to the highest number of fatalities?

- **Data attributes needed:**
  - Column: "Crash type"
  - Column: "Number of fatalities"
- **Data transformation:**
  - Aggregate the number of fatalities per crash type.
  - No transformation is needed for this data.
- **Visualisation sketch:**
  - A **pie chart** or **bar chart** showing the proportion or number of fatalities by crash type, highlighting the most dangerous crash scenarios.