| Victoria Accident Data Visualisation Project Executive Summary |
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# Abstract

A 100 to 150 word executive summary of your findings. Do this last.

# Introduction

The purpose of this executive summary is to analyse the data that has been produced in a graphical format of the following queries:

* For a user-selected period, display the information of all accidents that happened in the period.
* For a user-selected period, produce a chart to show the number of accidents in each hour of the day (on average).
* For a user-selected period, retrieve all accidents caused by an accident type that contains a keyword (user selected), e.g. collision, pedestrian.
* Allow the user to analyze the impact of alcohol in accidents – ie: trends over time, accident types involving alcohol, etc.
* For a user-selected year, display the information of all accidents that occurred on a Victorian public holiday within the selected year.

These queries will cover a 12 month period between the years 2015 to 2020. The goal is that the analysis of this data could identify some key patterns in the cause or effects of road accidents and could potentially help inform future decision making in road safety.

# **Analysis 1** -For a user-selected period, display the information of all accidents that happened in the period

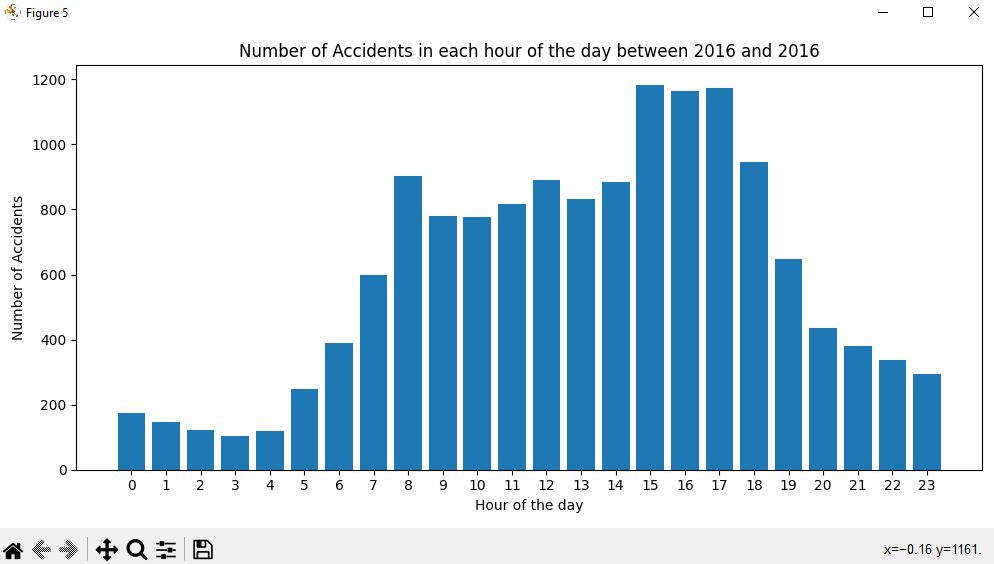
Figure 1: For a user-selected period, display the information of all accidents that happened in the period


The image above is the output for the query: “For a user-selected period, display information on all accidents that happened in the period” with the period selected being the whole year of 2019.

What can be inferred from this data is that the most common cause of accidents was striking an animal which accounted for 41.2% of all accidents in 2019. Knowing that animal collisions pose such a threat to driver’s safety, drivers could reduce this figure by lowering their speed in known high activity times for certain species (most likely kangaroos).

According to the output of the query the types of accidents that are least common are vehicle overturned (no collison), collision with a vehicle and collision with another object. These all shared an equal 5.9% each but cumulatively they accounted for 17.7% which is still not a negligible figure.

# **Analysis 2** - For a user-selected period, produce a chart to show the number of accidents in each hour of the day (on average)



The image above is the output for the query: “For a user selected period, produce a chart to show the number of accidents in each hour of the day(on average)” with the selected year for the output being the whole year of 2016.

What immediately stands out from this data is that the most hazardous travel time is the “rush hour” period of 1500 to 1700 accounting for nearly 1200 accidents per hour on average. This high accident figure would be caused by the cumulative effect of people finishing work and parents collecting their children from school resulting in a high influx of drivers on the road at the same time.

Another notable hazardous hour for driving is 0800 which, similarly to the afternoon, would be a result of many drivers on the road going to work and dropping their kids off to school.

# **Analysis 3 -** For a user-selected period, retrieve all accidents caused by an accident type that contains a keyword (user selected)

# **Analysis 4 -** Allow the user to analyse the impact of alcohol in accidents – ie: trends over time, accident types involving alcohol, etc

# **Analysis 5 -** For a user-selected year, display the information of all accidents that occurred on a Victorian public holiday within the selected year