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| < Accident Data User Interface> Executive Summary |
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# Abstract

Through the Accident Data User Interface project, technical and design skills are merged. Based on a carefully thought-out project strategy, the application aims to become the industry-standard tool for analyzing accident data within the given timeframe. A work of artistic genius, the user interface presents the data in a user-centric way. To coordinate tasks and predict timelines, a detailed Work Breakdown Structure (WBS) was required in order to ensure the program exceeded user expectations.

# Introduction

As part of this study, you will learn about the Accident Data User Interface project, unraveling a thorough narrative that ties together the many components of the software's development and design. From its conception in August 2023 through to its completion, the project has had a revolutionary path. In addition to numbers and codes, it reflects the initiative's desire to maximize the potential of accident data that lies beneath it. It will be evident to readers through the lens of this study how raw data can be transformed into useful insights, demonstrating the importance of well-represented data in the transformation process.

# **Analysis 1 <Display all accidents over a 12 month period>**

The Victoria Accident dataset contains 5 years of data. Tabulating the accidents that occurred in a single year provides an approximate snapshot of the data. The analysis that took place would allow the proposed client, a non-profit, to make appropriate assumptions about the occurrence and cause of vehicular accidents in Victoria.

# **Analysis 2 <Graphing accidents per hour in a day>**

Creating graphical aids allows for easy expression of information. This is particularly true when it comes to large datasets. All the information that accident-related non-profits require is contained within the CSV file. However, extracting information that is relevant will be challenging when sifting through that amount of data. Enabling the program to graph accidents per hour allows pertinent information to be quickly found. Knowing what hours of the day drivers are most prone to accidents can help shape how a non-profit would campaign around driver safety.

# **Analysis 3 <Searching by Keyword>**

The ability to easily find information that the user is interested in is an important feature of any software program. The keyword search function is a quick way for users to find exactly what they are looking for. It provides a truncated version of the dataset focused on the keyword. A non-profit can use this information to run targeted campaigns on problem driver behaviours such as not slowing down for pedestrian crossings.

# **Analysis 4 <Analyzing the Impact of Alcohol>**

Alcohol plays a large factor in lots of areas of people's lives. It is also one of the biggest risk factors when it comes to vehicular accidents. Therefore, it is imperative that the user can fully explore its impact within the dataset. In particular how alcohol impacts accident types and the risk factors involved with this type of behaviour. To the vehicle’s occupants as well as pedestrians.

# **Analysis 5 <Graphing Fatalities>**

Although unpleasant fatalities do occur in vehicular accidents, it is important to understand how they occur. Using the Victorian Crash statistics and the program we created certain treads can be parsed from the data. Non-profits can use this information to identify periods of time that have a high density of fatalities. Enabling them to raise awareness and make drivers more conscious of their behaviour during peak times, such as Christmas and Easter.