School of Science, Computing and Engineering Technologies

COS30045

LAB 4.1 Design Studio

Overview

In this lab you will be given a sample data set and asked to identify the different data and attribute types. You will also think about some questions about this data set that might be answered by a visualisation.

ardd\_fatalities\_Jan2020\_0.xlsx (download from Canvas)

Download and review this data set before attempting this exercise.

1 Interpreting the data set

Complete the LAB 4.1 Quiz.

2 Visualisation Design

Think of three questions you would like to answer with that require a data visualistion.

For each data question you will need to consider the following:

Which data attributes (columns) do you need to answer this question?

Do you need to transform any of the data?

Does the data type change when you transform the data? If so how.

Make a sketch of how you think your visualisation might look and add to this document.

Your Question 1: How does the number of fatalities vary by year?

|  |  |
| --- | --- |
| **Data attributes** | BITRE\_Fatality\_Count\_By\_Date[Year],  BITRE\_Fatality\_Count\_By\_Date[Number Fatalities] |
| **Transform data** | No |
| **Change data type** | No |
| **Sketch** |  |

Your Question 2: What is the gender distribution of fatalities across different age groups?

|  |  |
| --- | --- |
| **Data attributes** | BITRE\_Fatality [Age Group],  BITRE\_Fatality [Gender],  BITRE\_Fatality [Crash ID] |
| **Transform data** | No |
| **Change data type** | No |
| **Note** | Count distinct BITRE\_Fatality [Crash ID] to have the number of fatalities |
| **Sketch** |  |

Your Question 3: Which type of road user has the highest number of fatalities?”

|  |  |
| --- | --- |
| **Data attributes** | BITRE\_Fatality [Road User],  BITRE\_Fatality [Crash ID] |
| **Transform data** | No |
| **Change data type** | No |
| **Note** | Count distinct BITRE\_Fatality [Crash ID] to have the number of fatalities |
| **Sketch** |  |

Include this file as evidence for your Demonstration 2