Swinburne University of Technology

COS30045

DATA VISUALISATION

Lab Exercise Demonstration 2

(Exercises 3.1 to 4.1) (Week 5)

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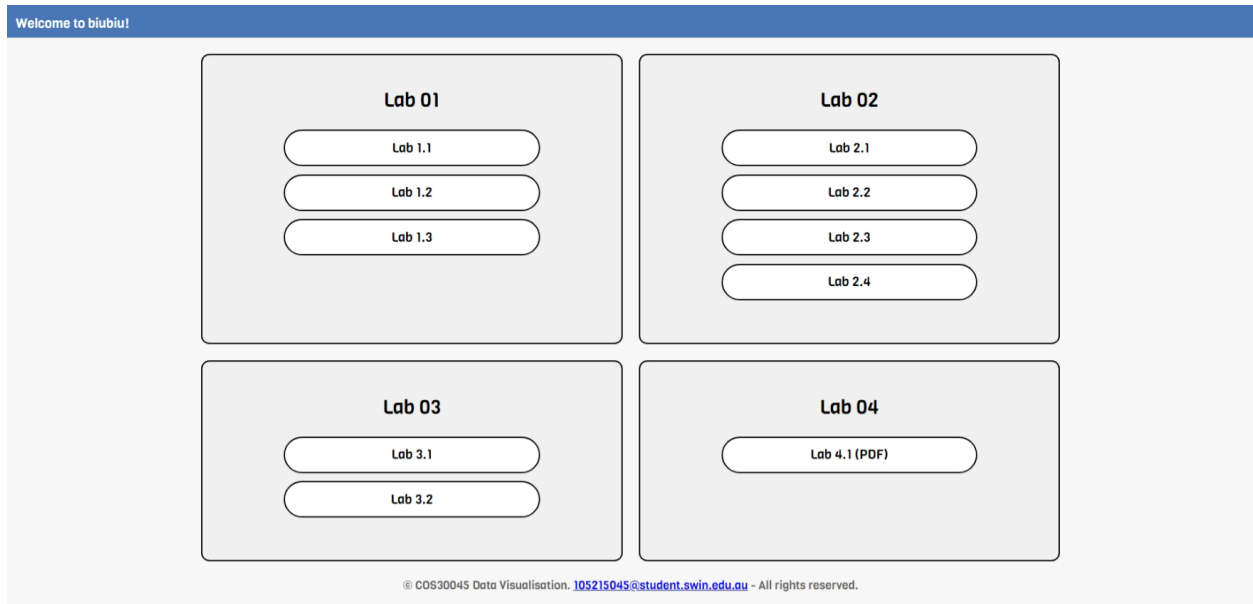Student ID: J22038527 (INTI) / 105215045 (Swinburne)
Section: C2

Source Code (GitHub)

FireeLiang/COS30045_DATA_VISUALISATION (github.com)

index.html

Lab 01
- Lab 1.1
- Lab 1.2
- Lab 1.3

Lab 02
- Lab 2.1
- Lab 2.2
- Lab 2.3
- Lab 2.4

Lab 03
- Lab 3.1
- Lab 3.2

Lab 04
- Lab 4.1 (PDF)

1. Main Web Server

   Lab Homepage (infinityfreeapp.com)

2. Redundant Web Server

   Lab Homepage (fireeliang.github.io)

Lab03

lab_3.1.html

lab_3.2.html

Home
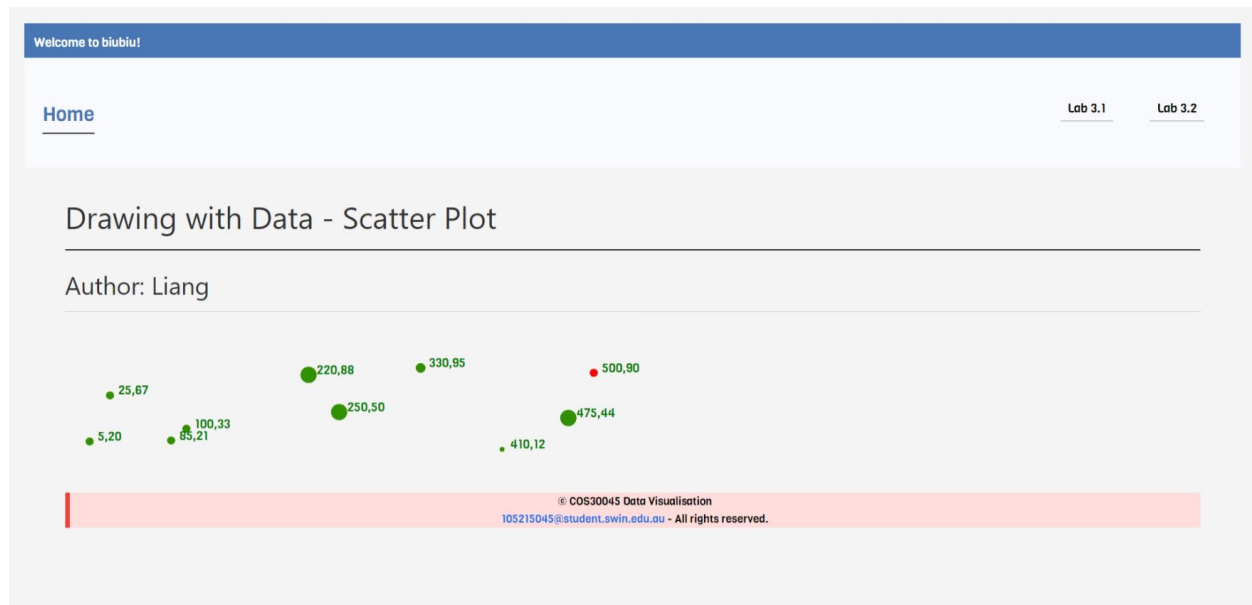
Drawing with Data - Scatter Plot

Author: Liang

The following is a modified version of orignal Lab3-2 with axis label.

Lab04

lab_4.1.html

Your Question 1

Example. What are the total fatalities of Rigid Trucks vs Articulated Trunk?
Provides a bar chart. Compares.
What are the total fatalities between genders based on each state?
Your answer here…
1. State, Gender, and Count of State are used to create this table.
2. The State and Gender are used as Rows and need to count the state in value.
3. There are no data transformations needed because the data is pre-defined.

The total fatalities between genders based on each state

12000
10000
8000
6000
4000
2000
0

Female Male | Female Male | Female Male | Unknown Female Male Unspecified | Female Male | Female Male | Unknown Female Male | Female Male

ACT | NSW | NT | Qld | SA | Tas | Vic | WA

■Total

4.

Your Question 2

Your answer here
1. Crash ID and Speed Limit are used to create this table.
2. The Speed Limit is used as an Axis, and the Crash ID needs to be counted in values.
3. The -9 has been modified to "Missing Data" for better understanding.

The total fatalities between each each speed limit

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

Example. What are the total fatalities of Rigid Trucks vs Articulated Trunk?
Provides a bar chart. Compares.
What are the total fatalities between genders based on each state?
Your answer here…

1. State, Gender, and Count of State are used to create this table.
2. The State and Gender are used as Rows and need to count the state in value.
3. No data transformations are needed because the data is pre-defined.
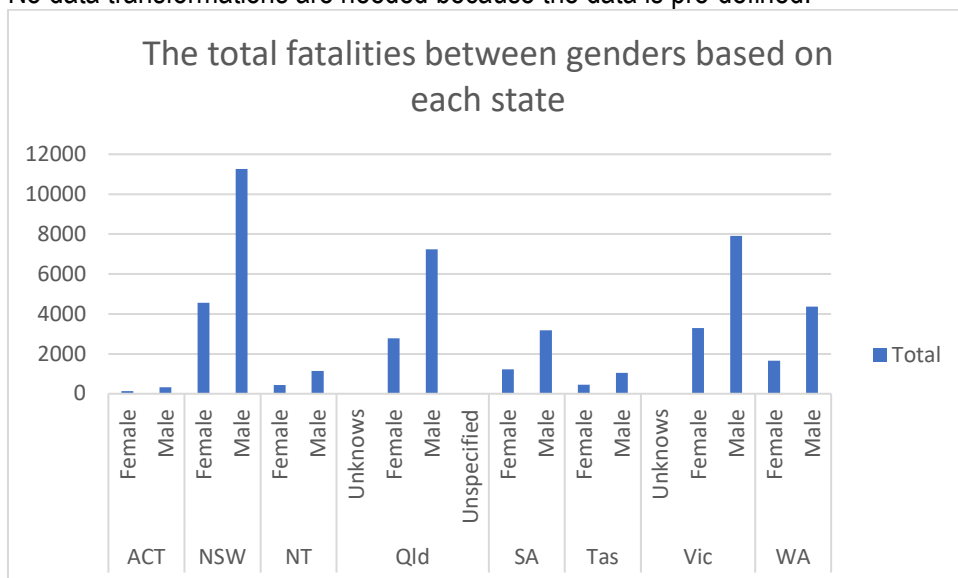
4.

The total fatalities between genders based on each state
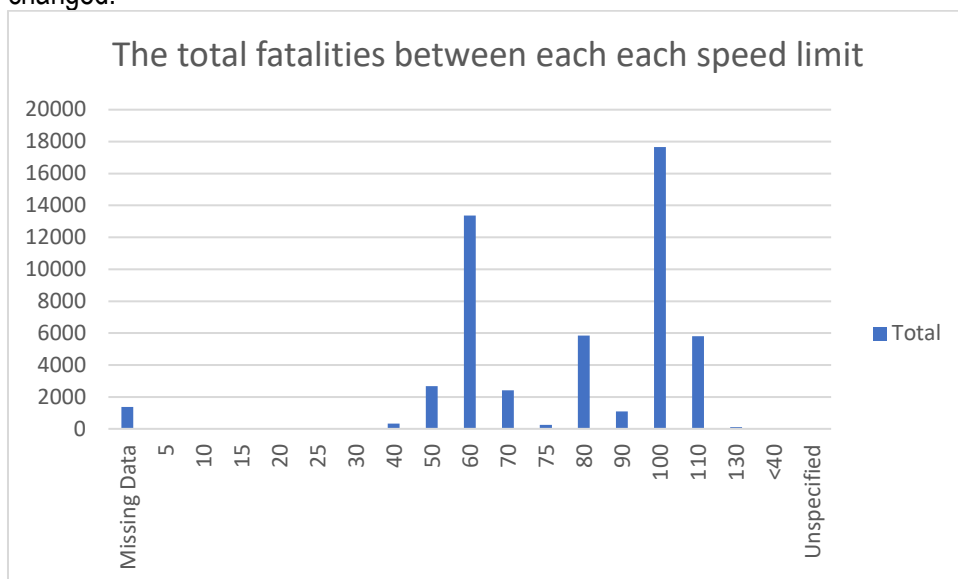
Your Question 2

Your answer here

1. Crash ID and Speed Limit are used to create this table.
2. The Speed Limit is used as an Axis, and the Crash ID needs to be counted in values.
3. The -9 has been modified to "Missing Data" for data transformation. There are no data types that were changed.

4.

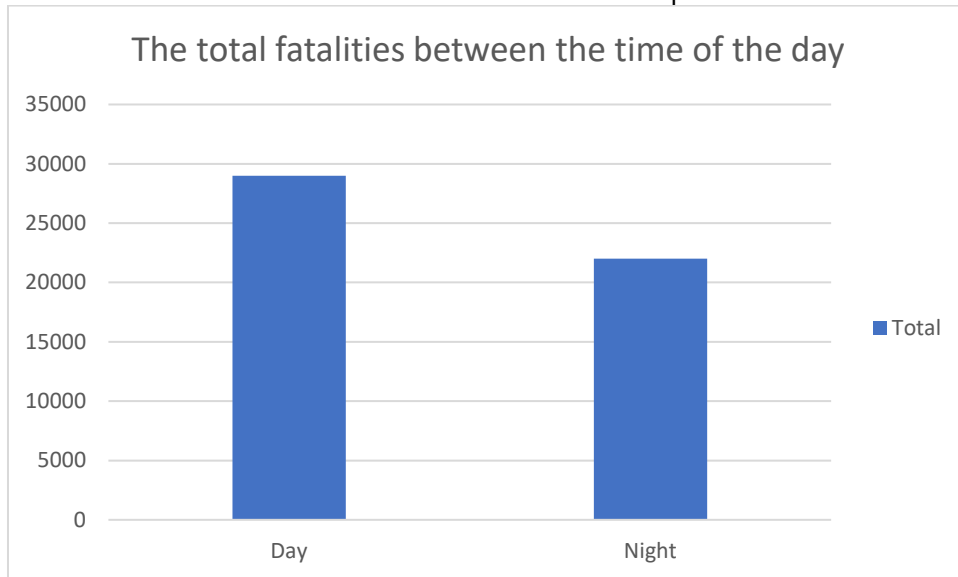The total fatalities between each each speed limit

Your Question 3

Your answer here
1. Crash ID and Time of Day are used to create this table.
2. The time of the day is used as an axis, and the Crash ID needs to be counted in values.
3. No data transformations are needed because the data is predefined.

4.

The total fatalities between the time of the day

(Bar chart showing Total fatalities. Day bar ≈ 29000, Night bar ≈ 22000. Y-axis from 0 to 35000 in increments of 5000. Legend: Total)

Include this file as evidence for your Demonstration 2