

# COS30045 Data Visualization: Lab Exercises 3.1 – 4.1 Demonstration 2

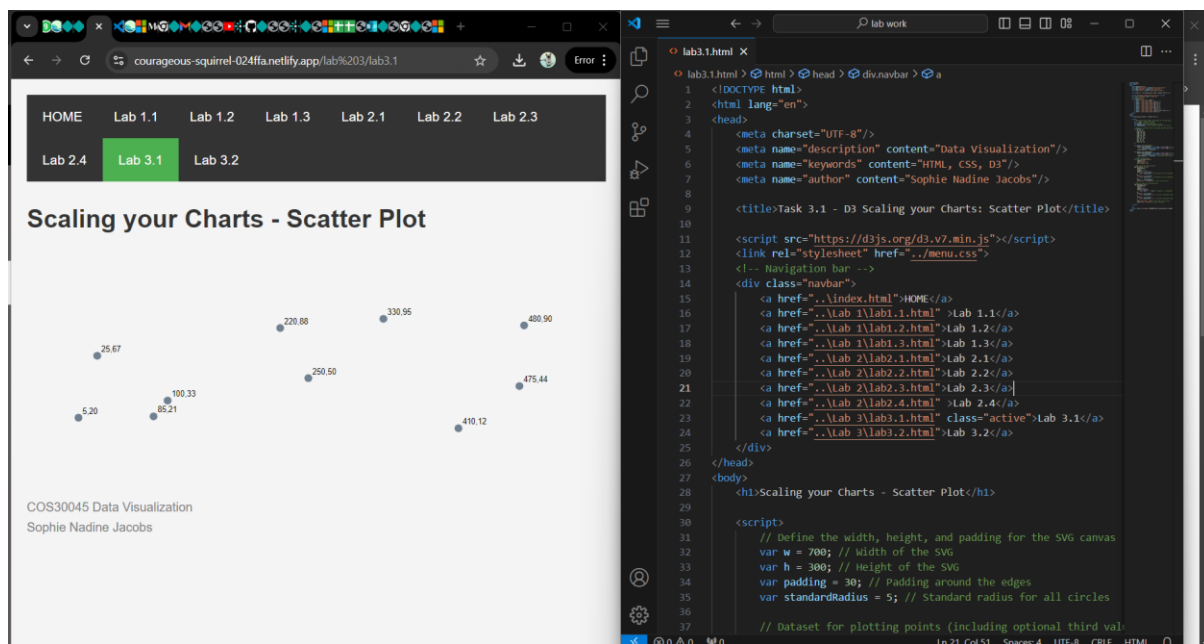
Name: Sophie Nadine Jacobs

Student ID: 104520476

Hosting Link: <https://courageous-squirrel-024ffa.netlify.app/>

GitHub Link: <https://github.com/sophiejcbs/COS30045-Labs>

## Lab 3.1



## Lab 3.2

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### Drawing with Data - Scatter Plot

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

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <meta name="description" content="Data Visualization"/>
6    <meta name="keywords" content="HTML, CSS, D3"/>
7    <meta name="author" content="Sophie Nadine Jacobs"/>
8
9    <title>Task 2.1 D3 Data Binding</title>
10
11    <script src="https://d3js.org/d3.v7.min.js"></script>
12    <link rel="stylesheet" href="menu.css">
13    <!-- Navigation bar -->
14    <div class="navbar">
15      <a href="index.html">HOME</a>
16      <a href="lab1/lab1.1.html">Lab 1.1</a>
17      <a href="lab1/lab1.2.html">Lab 1.2</a>
18      <a href="lab1/lab1.3.html">Lab 1.3</a>
19      <a href="lab2/lab2.1.html">Lab 2.1</a>
20      <a href="lab2/lab2.2.html">Lab 2.2</a>
21      <a href="lab2/lab2.3.html">Lab 2.3</a>
22      <a href="lab2/lab2.4.html">Lab 2.4</a>
23      <a href="lab3/lab3.1.html">Lab 3.1</a>
24      <a href="lab3/lab3.2.html" class="active">Lab 3.2</a>
25    </div>
26  </head>
27  <body>
28    <h1>Drawing with Data - Scatter Plot</h1>
29
30    <script>
31      // Define the width, height, and padding for the SVG canvas
32      var w = 700; // Width of the SVG
33      var h = 300; // Height of the SVG
34      var padding = 30; // Padding around the edges
35      var standardRadius = 5; // Standard radius for all circles
36
37      // Dataset for plotting points (including optional third val

```

[HOME](#)
[Lab 1.1](#)
[Lab 1.2](#)
[Lab 1.3](#)
[Lab 2.1](#)
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COS30045 Data Visualization  
Sophie Nadine Jacobs

## Lab 4.1

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.

Submission details

Grade: 10 / 10

LAB 4.1 Design Studio Activity

Sophie Nadine Jacobs submitted 12 Sep at 13:34

### LAB 4.1 Design Studio Activity

**Due** 17 Sep at 23:59   **Points** 10   **Questions** 11   **Available** 9 Sep at 0:00 - 20 Sep at 23:59   **Time limit** None  
**Allowed attempts** Unlimited

#### Instructions

This quiz is the first part of LAB 4.1 Design Studio activity. In this quiz you will be given a sample data set and asked to identify the different data and attribute types.

[ardd\\_fatalities\\_Jan2020\\_0.xlsx](#) (please download before beginning the quiz)

NOTE: Canvas will not display file, choose 'Download' to access file.

Complete this quiz to satisfy the requirements for LAB 4.1.

(Note: This is a pass/fail assessment. The points do not contribute to the final score, just the fact that you completed it)

When you have completed this quiz complete the second part of the LAB:

[COS30045 4.1 Design Studio.docx](#)

Upload doc file as part of your Demonstration 2.

[Take the quiz again](#)

#### Attempt history

	Attempt	Time	Score
LATEST	Attempt 1	32 minutes	10 out of 10

Add a comment:

[Media comment](#) [Attach file](#)

[Save](#)

### 2 Visualisation Design

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

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

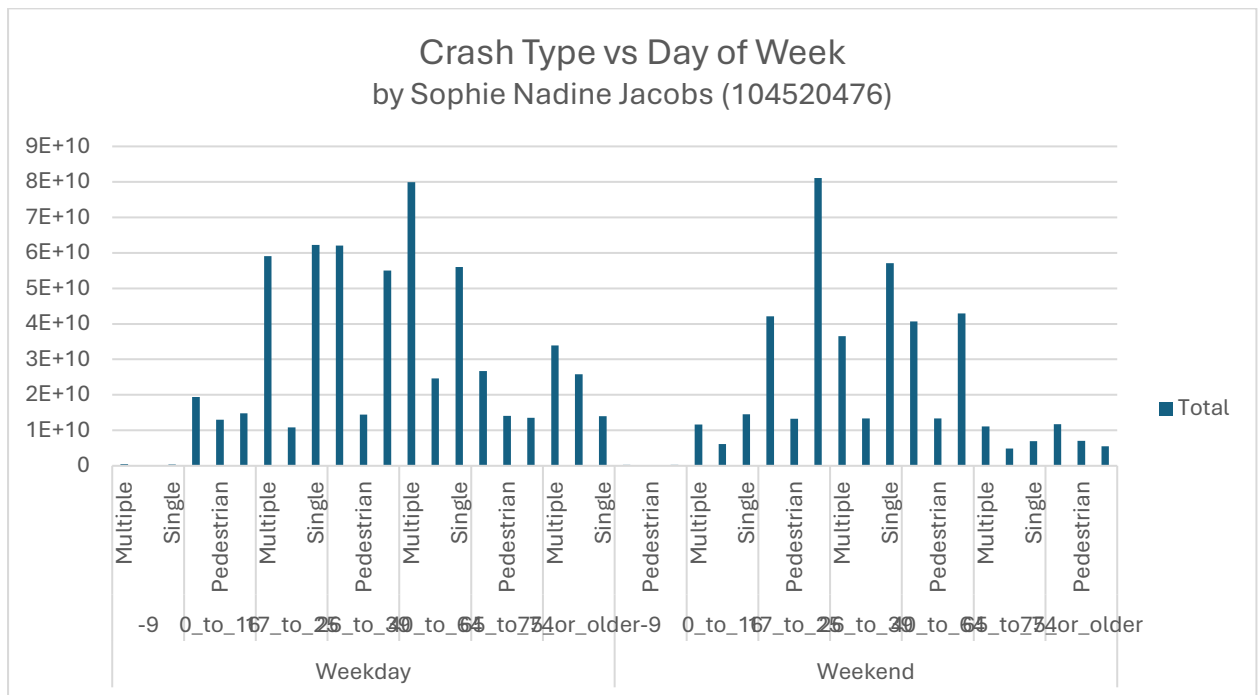
Which data attributes (columns) do you need to answer this question?

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.

## Chart #1: Which Crash Type occurs the most frequently on the Weekday vs Weekend?



## Chart #2: What is the Frequency of Crash Types during the Christmas Period?

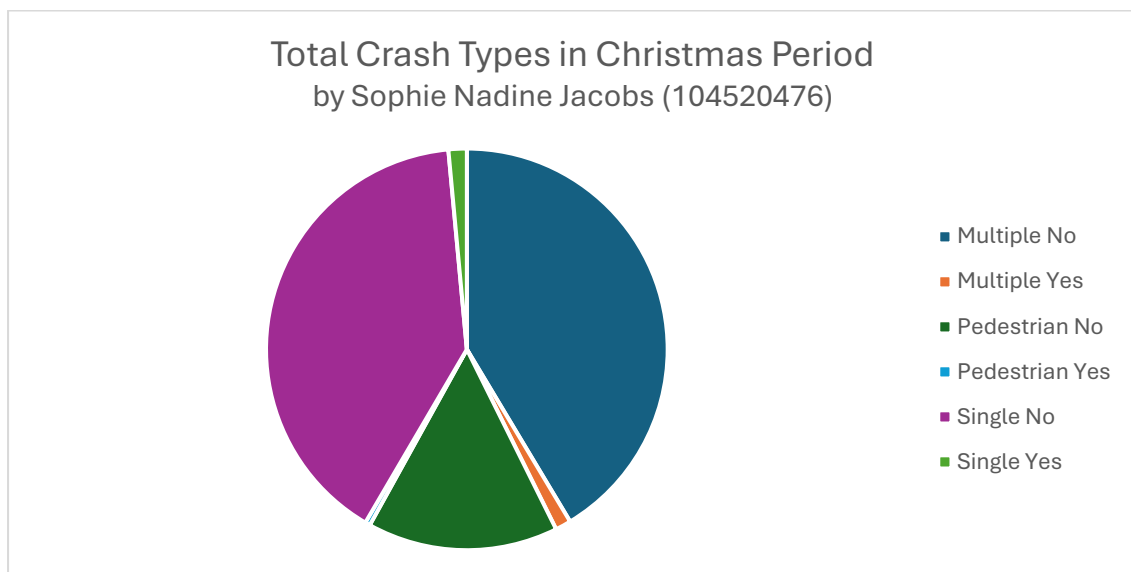


Chart #3: How many crashes occur at different times of day throughout the week?

