

# FIT3179 DATA VISUALISATION

## Homework Assessment Week 10

### Interactive visualisations in Vega-Lite

## Introduction

- This is an assessed homework worth 1% of your final mark.
- The submission deadline is on the [Assignments Summary](#) page.
- The late penalty is 25% of the total mark (1%) per day of late submission.

The goal of this homework is to create an interactive visualisation with Vega-Lite that is useful for your Data Visualisation 2 assignment. You will need to (1) create a visualisation with tooltips, text/line annotations, and a filtering option and (2) construct an HTML page that includes at least two visualisations.

You will get feedback about your graph on Moodle and in the Week 11 tutorial. You can then include an improved version of your visualisation in your submission for the Data Visualisation 2 assignment.

## Task Description

### Task 1: Interactive Visualisation

Create a visualisation of your choice with the following interactions:

- Tooltips,
- Text/line annotations, and
- One of the following filtering options (check the week-9 studio activities for references)
  - Selection on the legend
  - Filtering with a selection/drop-down menu
  - Filtering with a slider

### Task 2: HTML Page

Construct an HTML page that includes at least two visualisations. This could be the map that you created in the week 9 homework and the visualisation you created in Task 1 of this homework.

## Submission Requirement

A report must be submitted in PDF format through the submission link on the Week 10 Moodle page. The page limit of the report content is two pages. Write a report with the following content:

- Your identity (name, Monash student ID, lab, tutor name)
- Screen capture of your interactive visualisation created in Task 1.
- The outcome of your Task 2: A URL of your publicly accessible web page on GitHub. Note that a link to the JSON definition of the visualisation is not accepted; a URL of an HTML web page is required instead. Refer to the Week 4 (section 4) and Week 7 (section 1.3) studio materials for publishing a Vega-Lite visualisation with a GitHub page.
- One short bullet point for each of the following items:
  - The domain of your Data Visualisation 2
  - The visualised dataset (attribute types, source and author, etc.)
  - A justification for the type of visualisation idiom used (that is, why are you creating a bubble plot, stacked bar chart, etc.)?

## Marking Rubric

Zero points when the URL is not included, does not work, or does not link to a Vega-Lite visualisation embedded in an HTML document. Minus 20% for each of the following issues:

- No tooltips or tooltips with poor layout tooltips (e.g., more than one attribute per line, poor alignment) or poor typography (e.g., thousand separators, value units, regular font weight for attribute name and bold weight for attribute value, etc.)
- No text/line annotations, incorrect or unclear mapping between annotations and visual marks, annotations hiding important information, poor readability of annotation.
- No filter, filter not working, or filter displaying non-human readable text, such as "null".
- Filtering doesn't make sense.