FIT3179 Data Visualisation

Week 10 Homework: Create your own interactive visualisation in Vega-Lite.

Introduction

- This is an assessed homework worth 1% of your final mark.
- The late penalty is 5% 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 (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 receive feedback on your visualisation through Moodle and during the Week 11 studio. 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. These could be the map that you created for the week 9 homework and the visualisation you created in Task 1 of this homework.

Submission Requirement

Submit a report in PDF format through the submission link on the Week 10 Moodle page. The page limit of the report is two pages. Include the following content:

- Your identity: name, Monash student ID, lab, and tutor name.
- Task 1 outcome: A screen capture of your visualisation created in Task 1.
- Task 2 outcome: A URL of your publicly accessible web page on GitHub. Note that only a URL to an HTML web page is accepted; a link to the JSON definition of the visualisation is not sufficient. Refer to the Week 4 (section 4) and Week 7 (section 1.3) studio materials for guidance on publishing a Vega-Lite visualisation with a GitHub page.
- Bullet points:
  - The domain of your Data Visualisation 2
  - The visualised dataset, including attribute types, source and author.
  - A justification for the visualisation idiom used (that is, why you chose 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 (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 that obscure important information, or poor readability of annotations.
- No filter, filter not working, or filter displaying non-human readable text (e.g., "null").
- Filtering doesn't make sense.