FIT3179 Week 10 Homework

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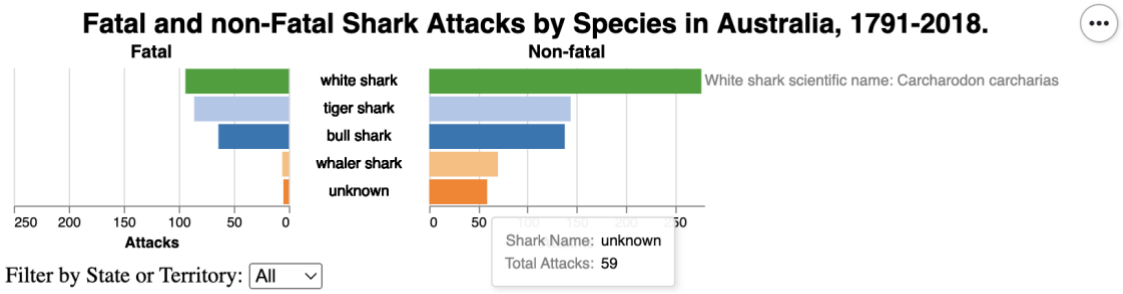
Task 1 Outcome:



Task 2 URL:

https://ezhu0009.github.io/FIT3179/w10_multi/multi_charts.html
or found here.

Discussion:

Domain:

- Domain of the visualisation includes Shark Attack incidents around Australian Coasts. The known incidents have been recorded from the years 1791 – 2018.
- It includes information on where the incident occurred, the shark type involved, the victim's age and gender, and the outcome of the incident; whether the victim was left unscathed, injured or died as a result.
- Targeted audiences include coastal governing bodies, such as councils, coatal guards. As well as Australian residents who are located near beaches or high shark risk areas.

Visualised dataset:

- The dataset uses data sourced from the Australian Shark Incident database, lead by Phoebe Meagher (Taronga Conservation Society, Australia).
- Data has been cleaned by the student, into two smaller datasets to work with.
- One dataset used for the map include the attributes: *State, Long, Lat,* and number of incidents for *uninjured, injured, fatal* attacks.
- The other used for the butterfly chart include the attributes: *Shark Common name, Victim injury, State, number of incidents*.

Justification:

- Justification for the chloropeth map has already outlined in Homework week 9.
- A butterfly chart was used as the dataset included nominal attributes for different types of sharks. We can then group these sharks by State they have a recorded incidents with, AND a nominal attribute of the result (factored such that victims survived or died), giving us a total of three nominal attributes, as well as a quantitative attribute of total incidents.

- Using one of the nominal attributes, *shark type*, together with *total incidents*, would provide enough information for a simple bar chart. Because we have two more categorised variables, we can use another, *victim injury*, to create two bar charts, or more specifically a butterfly or pyramid chart. This pretty much doubles the visualised information for the reader whilst staying within the domain of shark types.
- The butterfly chart was further incorporated with the remaining nominal attribute, *State*, and create a filter for the shark types that are grouped by the State the incidents occurred in.
- Altogether, the combination of variables create a detailed, yet relatively straightforward visualisation that the reader can extract a lot of information from, whilst also having a bit of interactivity with.