FIT3179 Week 9 Homework
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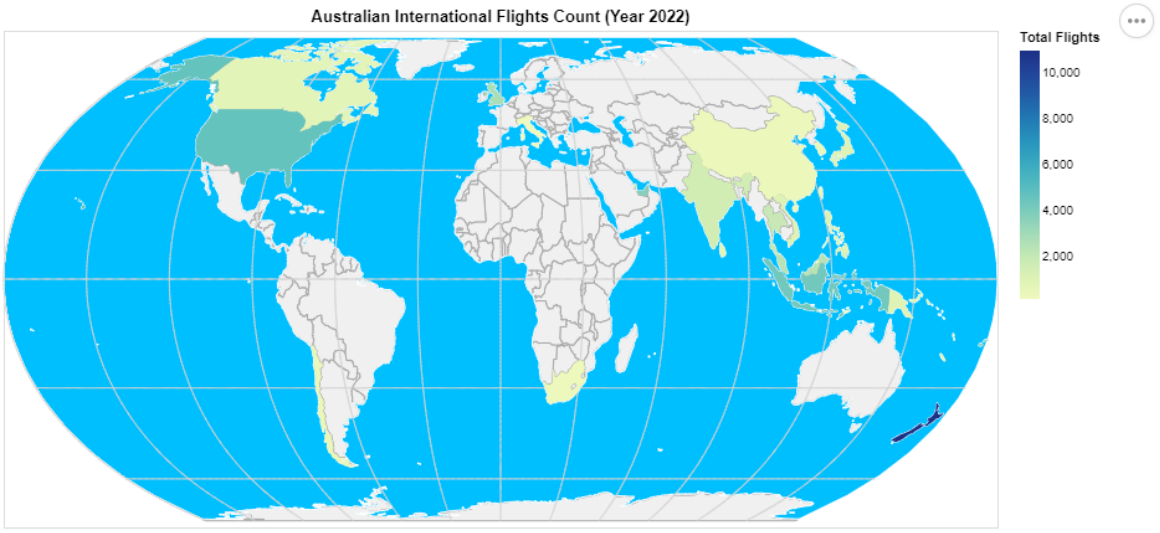
URL: https://tonyz1260.github.io/FIT3179/Week9Homework/index.html

Screenshot:



Domain

- The topic of my visualization is intended to demonstrate how many international flights are inbound and outbound with Australia in the year of 2022. The domain will be extended to domestic flights as well for the final DV2. The whole dataset contains data from 2003 to 2022 so for the next homework, I can add filters for years or months to demonstrate the growth of international flights over the years in between.

The visualized dataset

- The dataset is from Kaggle
- URL: https://www.kaggle.com/datasets/pandeyg0811/australian-flight-dataset-2003-2022
- The Kaggle collaborator is Gaurav Pandey. The original dataset source is from Australian government, URL: https://www.data.gov.au/dataset/ds-dga-d9fbffaa-836f-4f52-80e8-324249ff269f/details?q=australia%20international%20flight
- The original dataset is over 10MB and it's very slow for vegalite to process thus I have done some pre-cleaning to remove some unnecessary attributes, also in order to only get the flight data in year 2022, I have also created a script with the use of generative AI. The final dataset used only includes data for about 1KB. The attribute is just the Country Name and its associated total flight counts. The original dataset is in the international - copy.csv (also processed and unnecessary attributes are removed but still contain all necessary information such as year and so on). The script is in python and stored in the file country_comparison.py. There are also codes to correct some country name in the csv file in order to accommodate the topojson created.

Data transformation

- Based on the dataset that I have, there's no need to conduct any normalization.

Justification of map idiom

- The map idiom is a choropleth map. This is used instead of dot map, bin map or proportional symbol map as the purpose of my map is to create the comparison and convey the information on what countries has international flights to and away from Australia and see what country has the most. The bin map is not suitable for a map that is on a global scale. The dot map can possibly show which cities are the flights going to / away but for a map on global scale, it may be hard for the user to see the intended purpose of this visualization. Also the proportional symbol map is not considered due to the same reason. For instance, for 2 countries that are small in geographical area but has more flights such as New Zealand, using a proportional symbol chart may not be able to reveal the real comparison.