FIT3179 Data Visualization
Week 4 Homework Assessment - Visual Design
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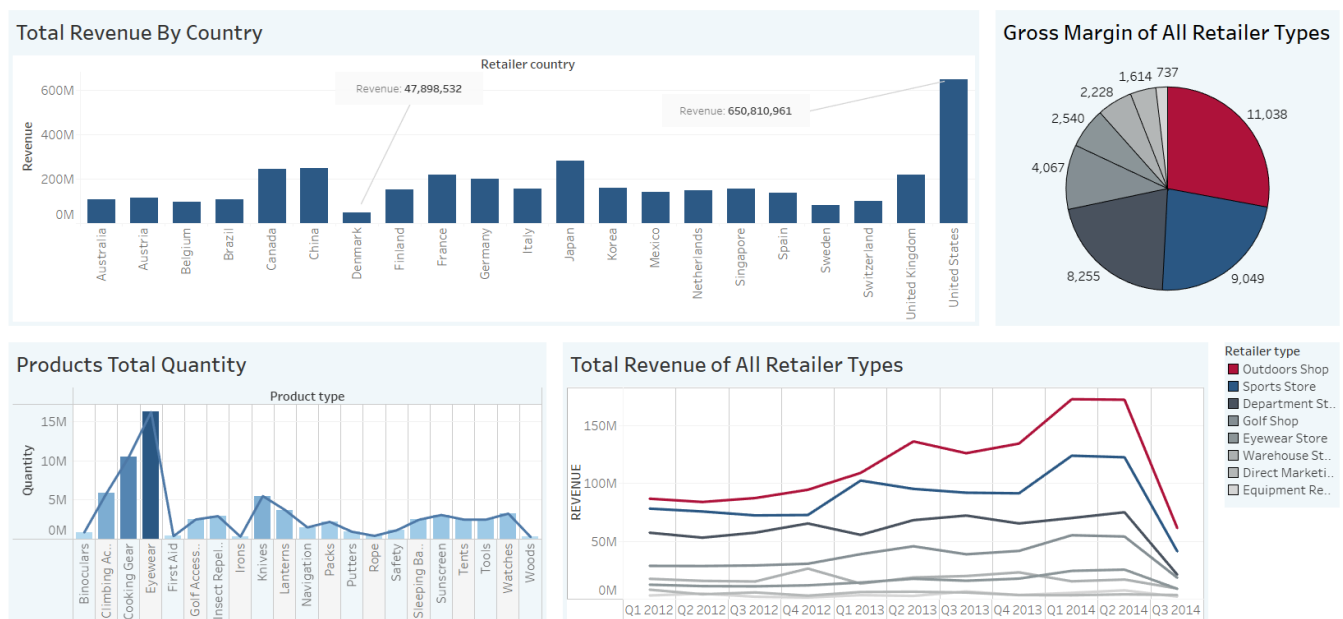

Task 1: Chartjunks

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a. A brief description of the identified chartjunk.

Chartjunk consists of non-data and redundant data elements in the graph. The elements of chartjunk that we have identified in this graph are the image on the top right corner of the dashboard, images on the left bottom corner of the dashboard (from sheet 1) such as the product types - Eyewear & Woods, and different background color of Sheet 1,2,3. Those redundant elements possibly distract us from understanding the graph, and they do worsen the data-ink ratio of the graph. Not only that, we can see that the marks of Sheet 3 - map (of the countries) can be considered as chartjunk since we can represent the same graph in another way (bar graph for example) without having to show the map of the country that possibly increases the distraction from understanding the graph. The annotations on some charts are also unnecessary since they can be removed without losing any information about the graph. Thus, those are the identified chartjunk and they have to be removed in order to increase the data-ink ratio and improve the visualization.

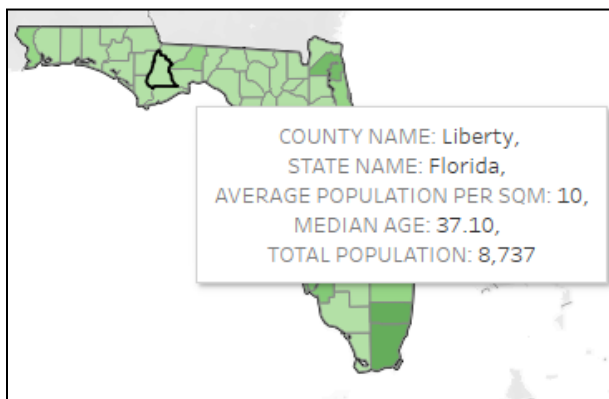### b. A screenshot of the final chart. (Click here to view the dashboard)

SALES REPORT 2012

Task 2: Color, Layout and Typography

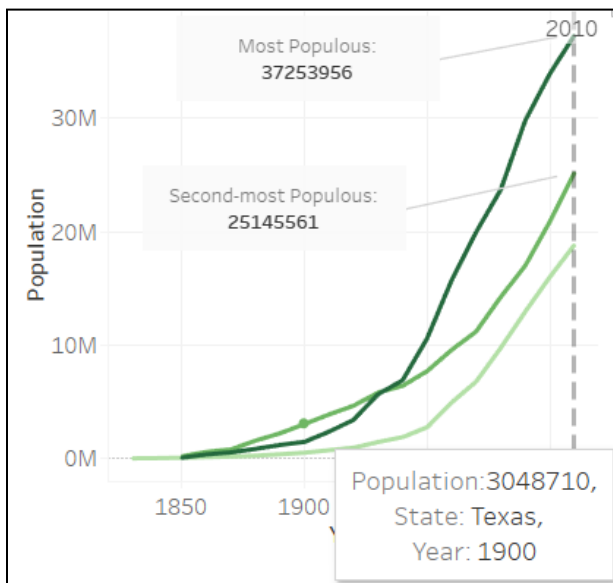## a. A brief description of improved aspects of the visualization.

Firstly, one of the improved aspects of the visualization is the layout since we have arranged the text, map, diagram, as well as legend. We have also applied the proximity gestalt principle as we work through the design of the visualization, so that the visualization starts with lines of text, followed by diagrams on the left with text paragraphs on the right. A better color, using the concept of color hue, has been selected to represent the average population on map visualization. Not only that, in order to create a clear hierarchy of text elements, we have applied typographic principles. Tooltips from both of the map and diagram have also been improved in terms of the structure and content with useful alignment on the text and with appropriate abbreviations. Lastly, annotations have been added to show the population of the two most populous states in the Southeastern United States in 2010.

b. A screenshot of the final dashboard, including both tooltips

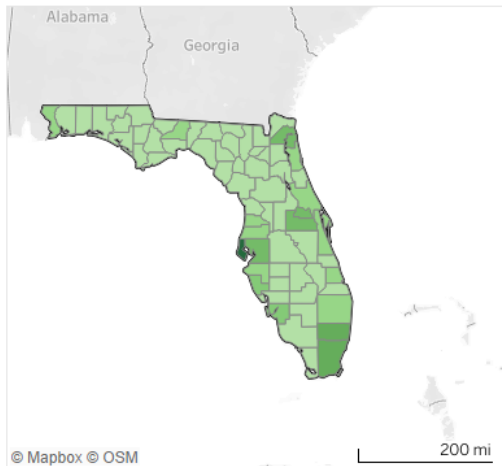First tooltip (on map)

Second tooltip (on line chart)

Final dashboard of task 2 (Click here to view the visualization)

FLORIDA

Florida is the third-most populous state in the United States. Its residents include people from a wide variety of ethnic, racial, national and religiousbackgrounds.

Source: Wikipedia.org: https://en.wikipedia.org/wiki/Demographics_of_Florida
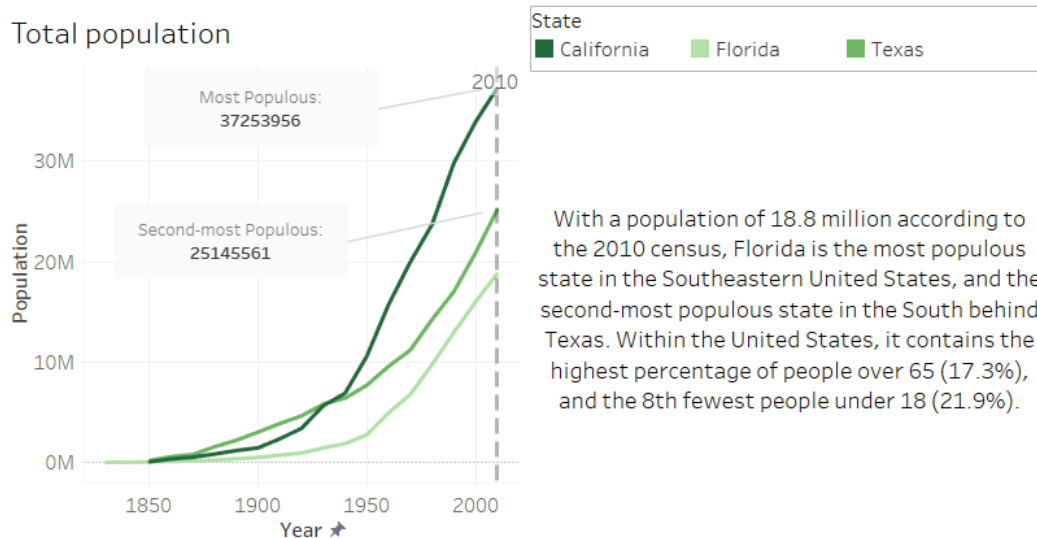
Florida Demographics

Average Population per Square Mile

10 ▬▬▬▬▬▬▬▬ 3,323

The state has attracted immigrants, particularly from Latin America. Florida's majority ethnic group are European Americans, with approximately 65% of the population identifying as White. National ethnic communities in the state include Cubans, who migrated en masse following the revolution in mid-century. They have been joined by other immigrants from Latin America, and Spanish is spoken by more than 20% of the state's population, with high usage especially in the Miami-Dade County area.

© Mapbox © OSM   200 mi

Total population

State
■ California   ■ Florida   ■ Texas

Most Populous:
37253956

Second-most Populous:
25145561

2010

With a population of 18.8 million according to the 2010 census, Florida is the most populous state in the Southeastern United States, and the second-most populous state in the South behind Texas. Within the United States, it contains the highest percentage of people over 65 (17.3%), and the 8th fewest people under 18 (21.9%).

Population

30M
20M
10M
0M

1850   1900   1950   2000

Year ✈