Import & Export statistics of United States

CS 560 Final Project Proposal

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https://zwang190.github.io/us_import_export/

Project Overview

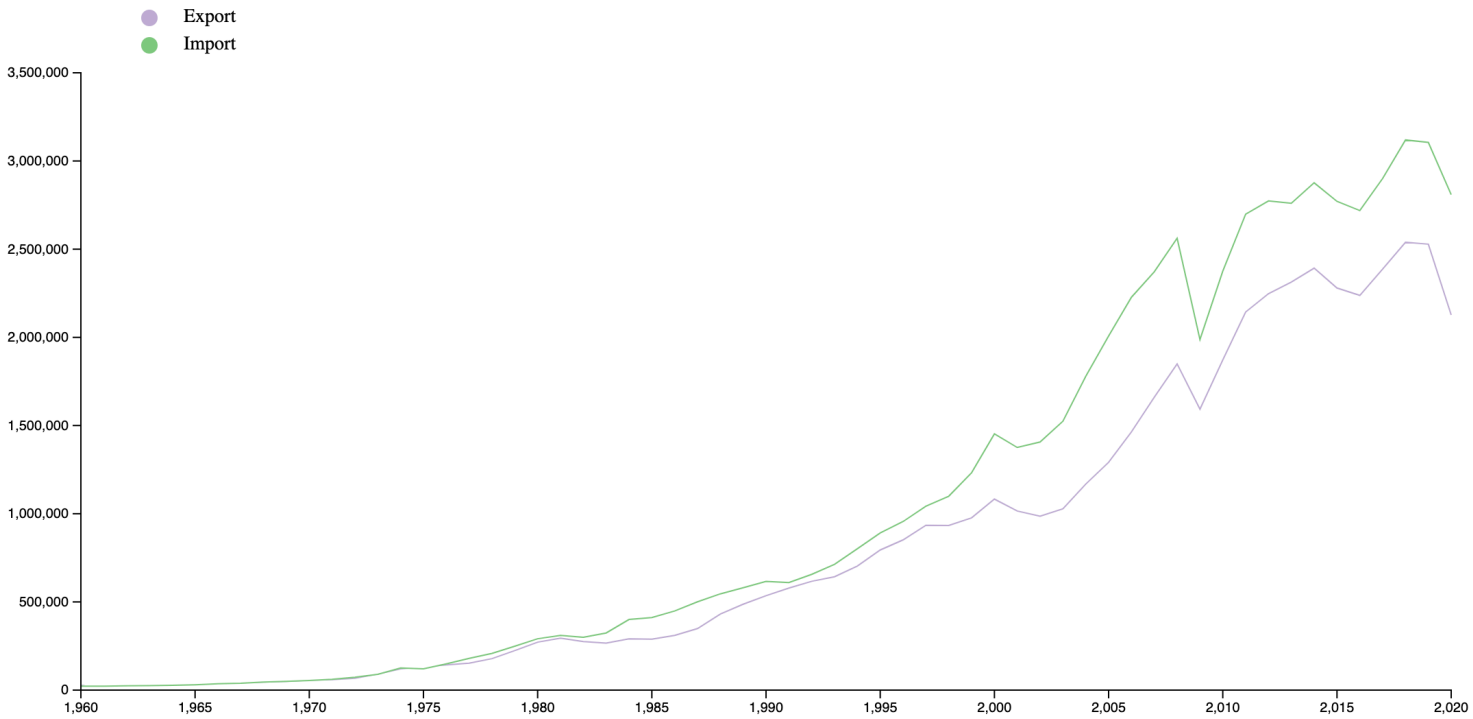
The goal of this project is to illustrate current economic situation to audiences by visualizing international trades among United States and other parters in this world as the trading activities will directly reflect the current status of economy. Also, the world was hit by Covid last year and people's lives have been impacted significantly. In this case, the designer intend to visualize comparisons of data, which are regarding with international trade activities happened before and during covid, and segment the data into several categories, including but not limited to steel, fuel, food products and textiles in order to analyze the market trends and changes toward demands.

Complete Features

Even though all the dataset which are required by this project have been collected, some of them are not in a very neat form. The designer is in the middle way of data processing.

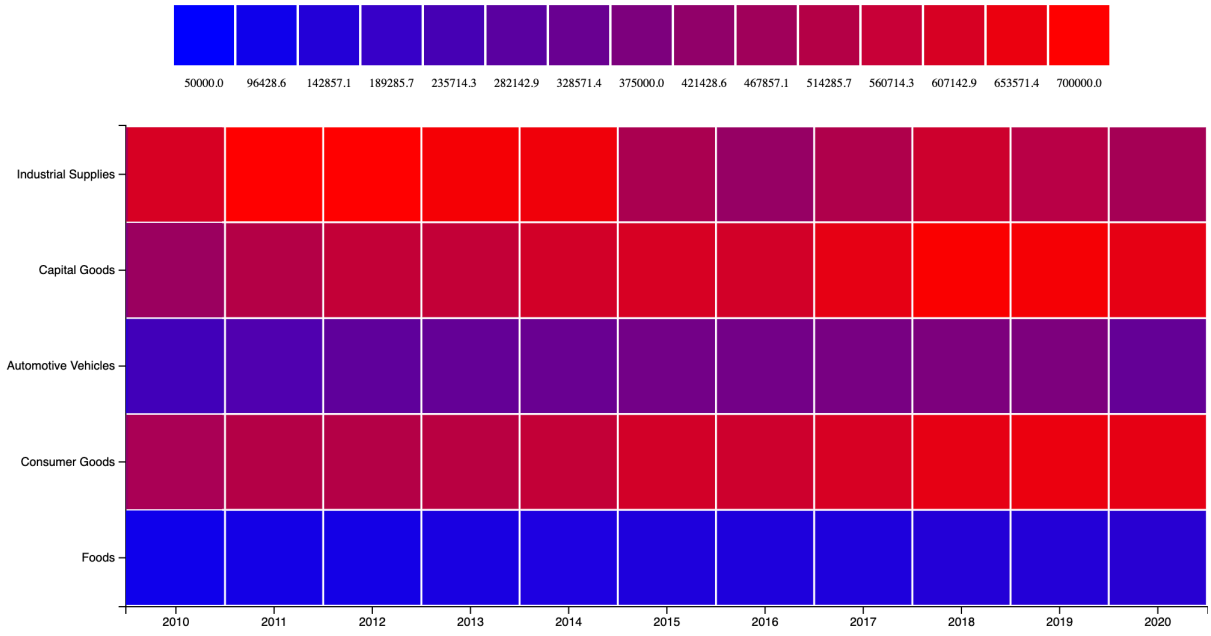
Other than that, the designer has completed certain graphs as stated in the proposal, which will be explained as following. **All the graphs attached below are made in D3.**

1. Generate an overview of the whole import/export activities by balance of payments and total revenue and expense in U.S. dollars.
   - When it comes to this feature, the designer has completed the multi-line chart for import/ export's balance of payment, which is the page 3.



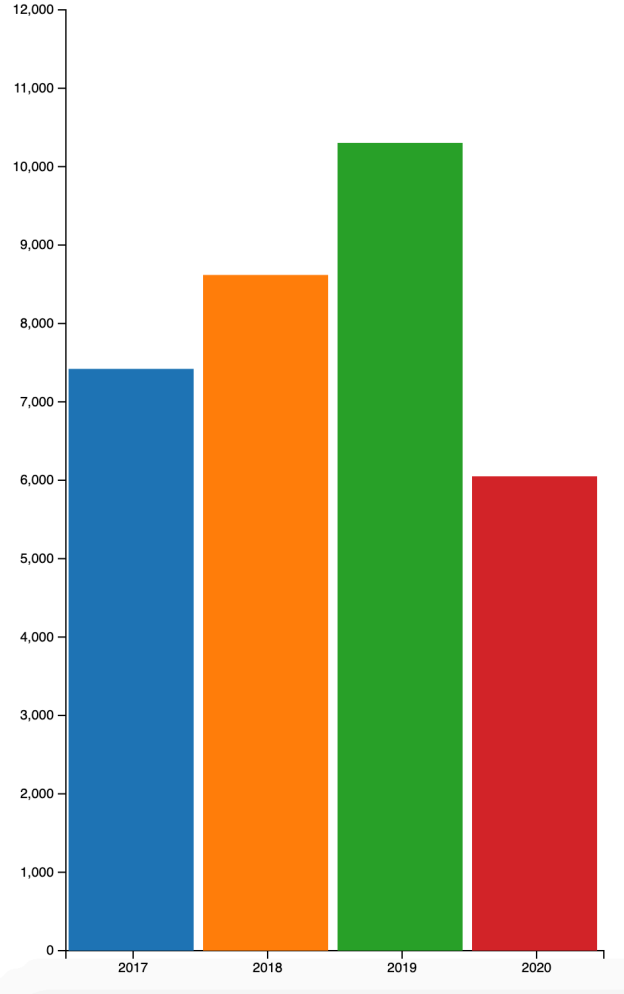
2. Exhibit the import/export goods based on five principal end-use categories and analyze the import/export by dividing data into a more specific end-use categories with dozens of options in order to explain the detail of foreign trade activities.

- The designer has finished the heatmap about U.S. import based on five principal end-use categories, which is page 4, including industrial supplies, capital goods, automotive vehicles, consumer goods and foods, covering from year 2010 to year 2020



3. Explain the changes of demands toward certain goods of specific states.

   The designer will select certain commodities and illustrate their demands before and during the covid. So far, the designer has chosen the microchip and computer processors, which covers from year 2017 to year 2020, exported from Texas as an example. This is the page 8.



Specific Schedule

April 7th	Revised Proposal
April 12nd	Alpha Release
April 14th	Data preprocessing

April 19th	Page 1, page 2 and page 3
April 24th	Page 4, page 5 and page 6 Work on layout and visual design
April 26th	Beta Release
April 30th	Page 7 and Page 8
May 8th	MVP for Presentation Work on layout and visual design
May 10th	FInal Presentation
May 15th	Final Report
May 19th	Final Deliverables

Upcoming immediate milestones

1. Implement data preprocessing and clean up
2. Finish residual work on page 1, page 2 and page 3.

Optional Features:

- Add Interactive functions with users, such as zooming and filters.
- Illustrate tariff information if applicable.
- Exhibit more graphs, such as information regarding with certain specific commodities.
- Gather import/export activities with specific large countries and regions.

Roadblocks

First of all, the designer did not finish the last line chart at page 3 as certain changes are required to the graph since total balance of payment could be fluctuating between positive and negative, which is caused by trade surplus and deficit. The designer is seeking solutions in order to design a proper graph in next stage.

Initially, the designer planned to finish the page 1. However, the learning curve of choropleth map is deep now. This will be the goal for the upcoming milestone.