Visualization 1

120 years of Olympic Games

Critique

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What

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Background

Saúl Buentello a Web Developer, Data Enthusiast and a big fan of the Olympics came out with a project to demonstrate how anyone can benefit from the built system's visual representations using the Olympics as a use case.

1. Dataset: Athlete events, Event regions (Kaggle)
2. Visualisation Tool: RStudio
3. Objective: How to analyze and visualize 120 years of Olympic Games with R

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"ID","Name","Sex","Age","Height","Weight","Team","NOC","Games","Year","Season","City","Sport","Event","Medal"
"1","A Dijiang","M",24,180,80,"China","CHN","1992 Summer",1992,"Summer","Barcelona","Basketball","Basketball Men's Basketball",NA
"2","A Lamusi","M",23,170,60,"China","CHN","2012 Summer",2012,"Summer","London","Judo","Judo Men's Extra-Lightweight",NA
"3","Gunnar Nielsen Aaby","M",24,NA,NA,"Denmark","DEN","1920 Summer",1920,"Summer","Antwerpen","Football","Football Men's Football",NA
"4","Edgar Lindenau Aabye","M",34,NA,NA,"Denmark/Sweden","DEN","1900 Summer",1900,"Summer","Paris","Tug-Of-War","Tug-Of-War Men's Tug-Of-War","Gold"
"5","Christine Jacoba Aaftink","F",21,185,82,"Netherlands","NED","1988 Winter",1988,"Winter","Calgary","Speed Skating","Speed Skating Women's 500 metres",NA
"5","Christine Jacoba Aaftink","F",21,185,82,"Netherlands","NED","1988 Winter",1988,"Winter","Calgary","Speed Skating","Speed Skating Women's 1,000 metres",NA
"5","Christine Jacoba Aaftink","F",25,185,82,"Netherlands","NED","1992 Winter",1992,"Winter","Albertville","Speed Skating","Speed Skating Women's 500 metres",NA
"5","Christine Jacoba Aaftink","F",25,185,82,"Netherlands","NED","1992 Winter",1992,"Winter","Albertville","Speed Skating","Speed Skating Women's 1,000 metres",NA
"5","Christine Jacoba Aaftink","F",27,185,82,"Netherlands","NED","1994 Winter",1994,"Winter","Lillehammer","Speed Skating","Speed Skating Women's 500 metres",NA
"5","Christine Jacoba Aaftink","F",27,185,82,"Netherlands","NED","1994 Winter",1994,"Winter","Lillehammer","Speed Skating","Speed Skating Women's 1,000 metres",NA
"6","Per Knut Aaland","M",31,188,75,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 10 kilometres",NA
"6","Per Knut Aaland","M",31,188,75,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 50 kilometres",NA
"6","Per Knut Aaland","M",31,188,75,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 10/15 kilometres Pursuit",
"6","Per Knut Aaland","M",31,188,75,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 4 x 10 kilometres Relay",NA
"6","Per Knut Aaland","M",33,188,75,"United States","USA","1994 Winter",1994,"Winter","Lillehammer","Cross Country Skiing","Cross Country Skiing Men's 10 kilometres",NA
"6","Per Knut Aaland","M",33,188,75,"United States","USA","1994 Winter",1994,"Winter","Lillehammer","Cross Country Skiing","Cross Country Skiing Men's 30 kilometres",NA
"6","Per Knut Aaland","M",33,188,75,"United States","USA","1994 Winter",1994,"Winter","Lillehammer","Cross Country Skiing","Cross Country Skiing Men's 10/15 kilometres Pursuit",
"6","Per Knut Aaland","M",33,188,75,"United States","USA","1994 Winter",1994,"Winter","Lillehammer","Cross Country Skiing","Cross Country Skiing Men's 4 x 10 kilometres Relay",NA
"7","John Aalberg","M",31,183,72,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 10 kilometres",NA
"7","John Aalberg","M",31,183,72,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 50 kilometres",NA
"7","John Aalberg","M",31,183,72,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 10/15 kilometres Pursuit",NA
"7","John Aalberg","M",31,183,72,"United States","USA","1992 Winter",1992,"Winter","Albertville","Cross Country Skiing","Cross Country Skiing Men's 4 x 10 kilometres Relay",NA
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"7","John Aalberg","M",33,183,72,"United States","USA","1994 Winter",1994,"Winter","Lillehammer","Cross Country Skiing","Cross Country Skiing Men's 10/15 kilometres Pursuit",NA
```

Characteristics of the Data

1. Occurrences (summer and winter)
2. Data at the sport level, Art competitions were not included in the athletes' data (focused on athletics)
3. large-scale dataset (spans the years 1896 to 2016)

Why

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Objectives

Saúl's intentions for this visualisation is to answer the following questions:

1. Which countries are the most dominant?
2. How has involvement evolved?
3. Which countries have the most medals in various disciplines?
4. What is the ratio of female/male Olympic attendees?

How

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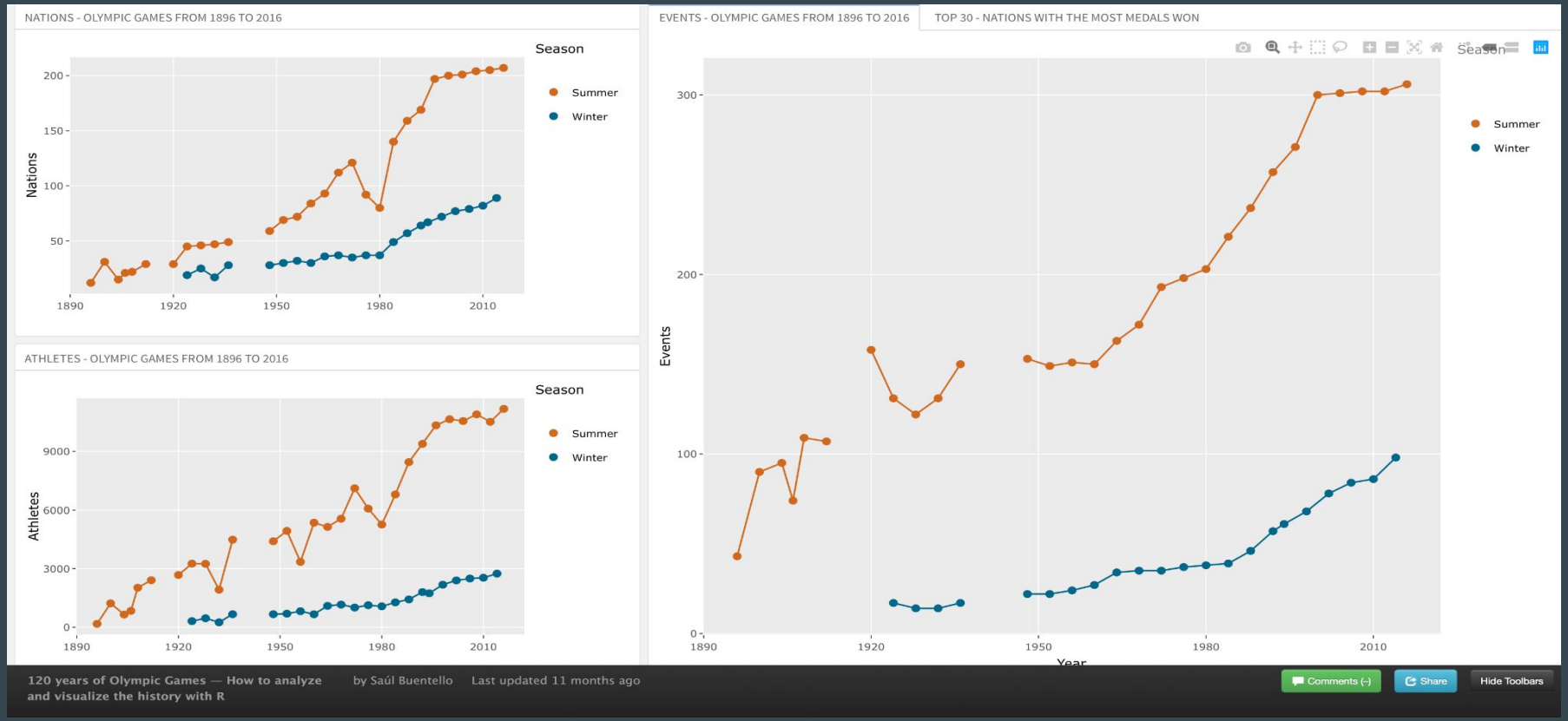
NATIONS - OLYMPIC GAMES FROM 1896 TO 2016
Season
Summer
Winter
Nations
200
150
100
50
1890
1920
1950
1980
2010
ATHLETES - OLYMPIC GAMES FROM 1896 TO 2016
Season
Summer
Winter
Athletes
9000
6000
3000
0
1890
1920
1950
1980
2010
EVENTS - OLYMPIC GAMES FROM 1896 TO 2016
TOP 30 - NATIONS WITH THE MOST MEDALS WON
Season
Summer
Winter
Events
300
200
100
0
1890
1920
1950
1980
2010
Year
120 years of Olympic Games — How to analyze and visualize the history with R
by Saúl Buentello
Last updated 11 months ago
Comments (-)
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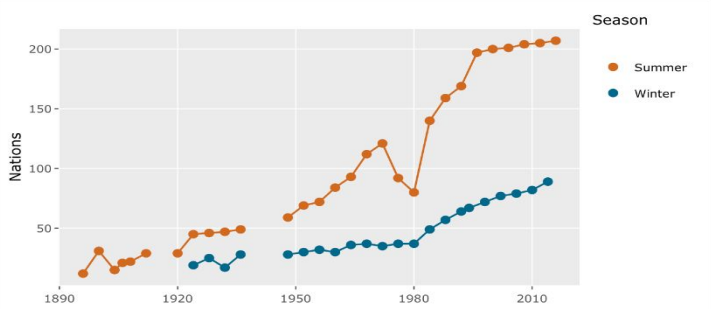
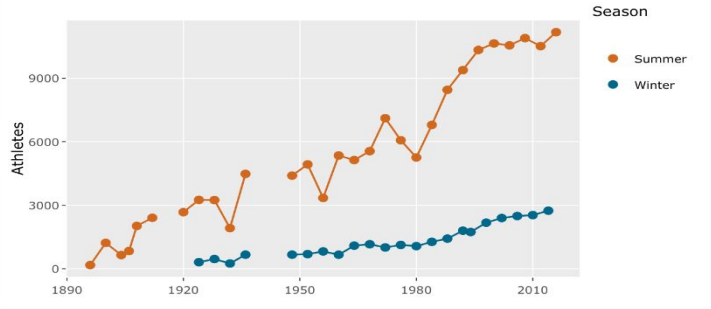
120 years of Olympic Games - How to analyze and visualize the history with R | Part 1 | Part 2 | Medium article

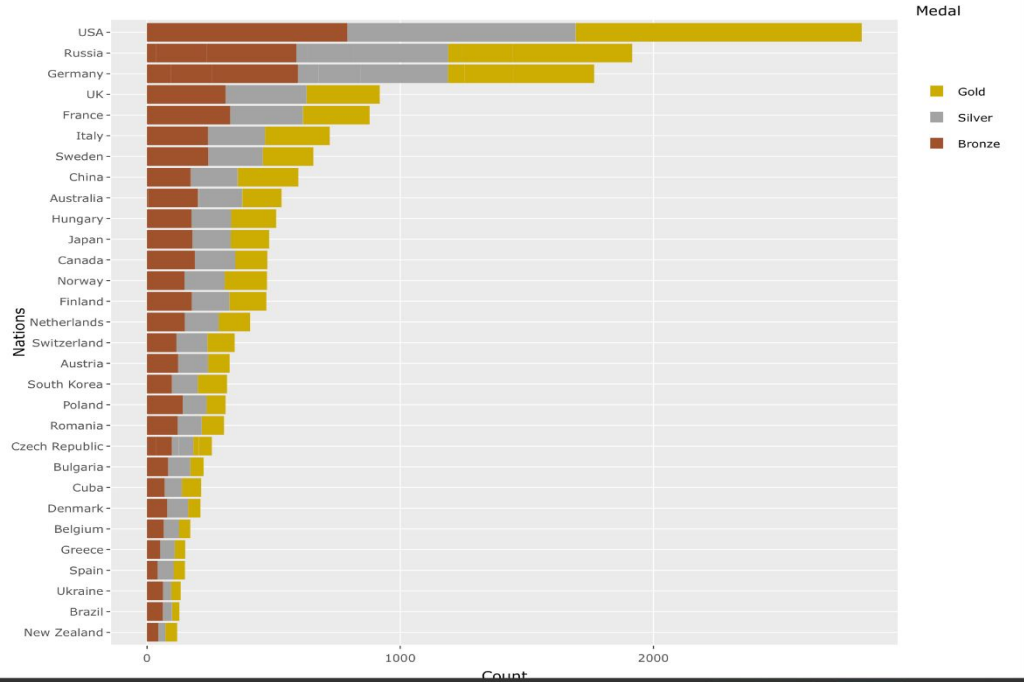
NATIONS - OLYMPIC GAMES FROM 1896 TO 2016



ATHLETES - OLYMPIC GAMES FROM 1896 TO 2016



EVENTS - OLYMPIC GAMES FROM 1896 TO 2016 | TOP 30 - NATIONS WITH THE MOST MEDALS WON



120 years of Olympic Games — How to analyze and visualize the history with R | by Saúl Buentello | Last updated 11 months ago

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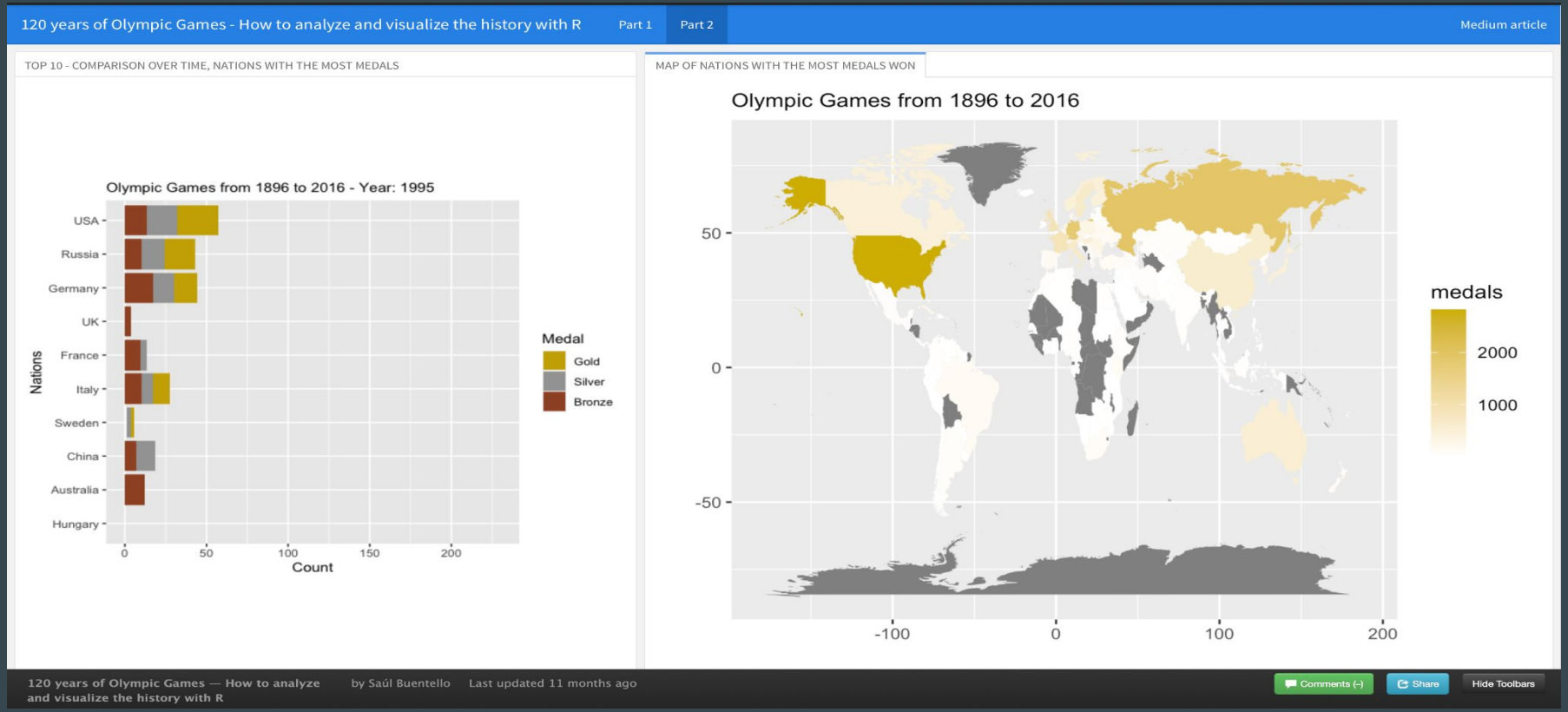
How is the data currently visualised



Did it achieve its intended task?

1. Which countries are the most dominant?
    - Yes
2. How has involvement evolved?
    - To a certain degree
3. Which countries have the most medals in various disciplines?
    - No
4. What is the ratio of female/male Olympic attendees?
    - No

Observations

1. Pros
    a. Nodes in the line chart represent each year the Olympics takes place
    b. Statistical overview of the data
    c. Utilisation of different contrasting colours to show different type of data
2. Cons
    a. Predominant usage of line charts
    b. Lacks detailed information about the following:
        i. Number of participating countries
        ii. Number of athletes
        iii. Number of events
        iv. Types of events
        v. Total number of medals

Observations

1. Pros
    a. Animated changes to the medal tally for each Olympic Game each year
    b. Statistical overview of the data
    c. Utilisation of a World Choropleth with a chromatic scale to show the number of medals won by each country
2. Cons
    a. Hard to differentiate the difference with the current chromatic scale
        i. Blends in with the background
        ii. The shades are nearly similar
        iii. Same colour used to represent the gold medal (Misleading)
    b. Animation can seem confusing at times
        i. User is not given enough time to process the data

Suggestions

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What

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We plan to use the same dataset

Why

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Provide insight for aspiring Olympic athletes

How

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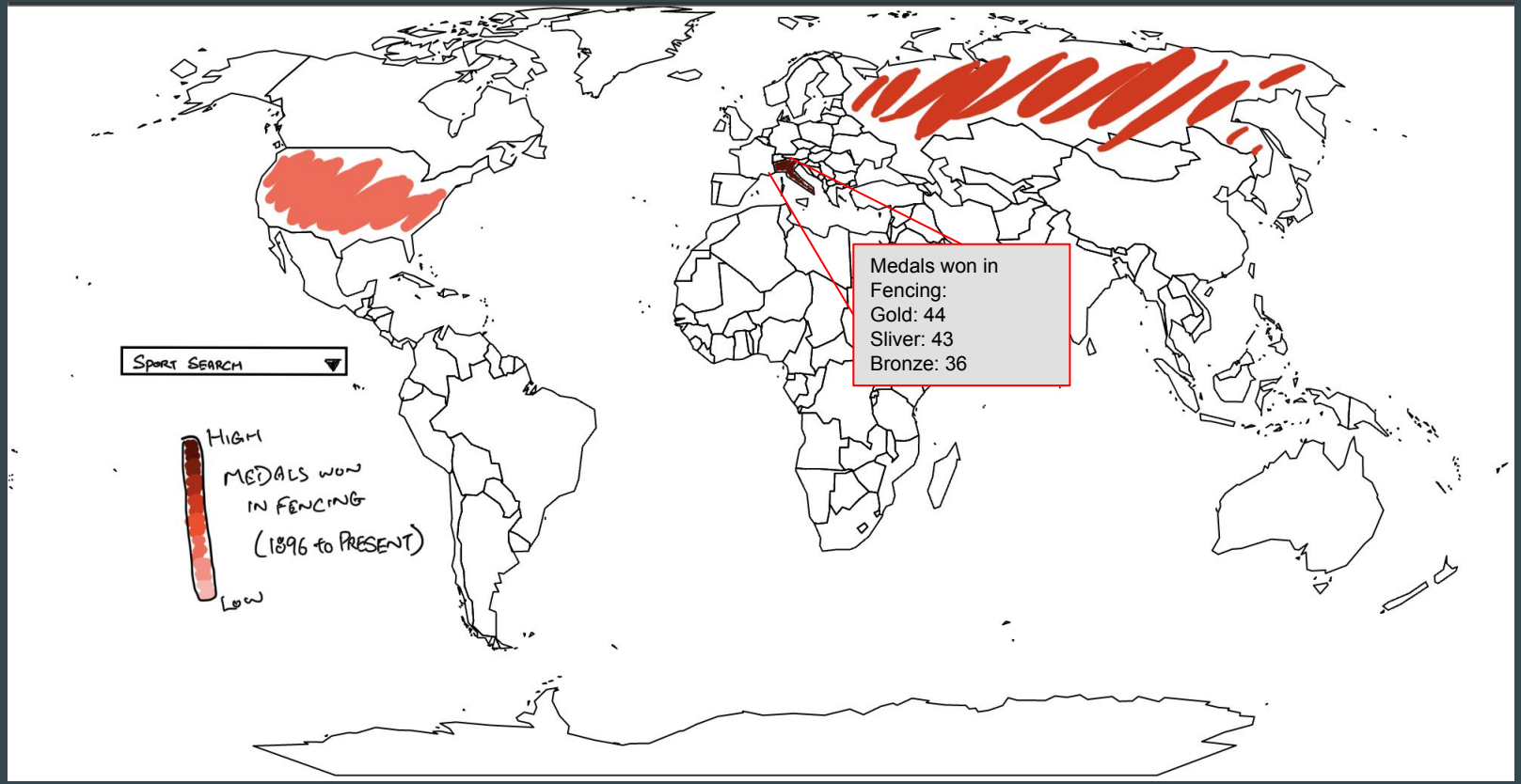
Improvements

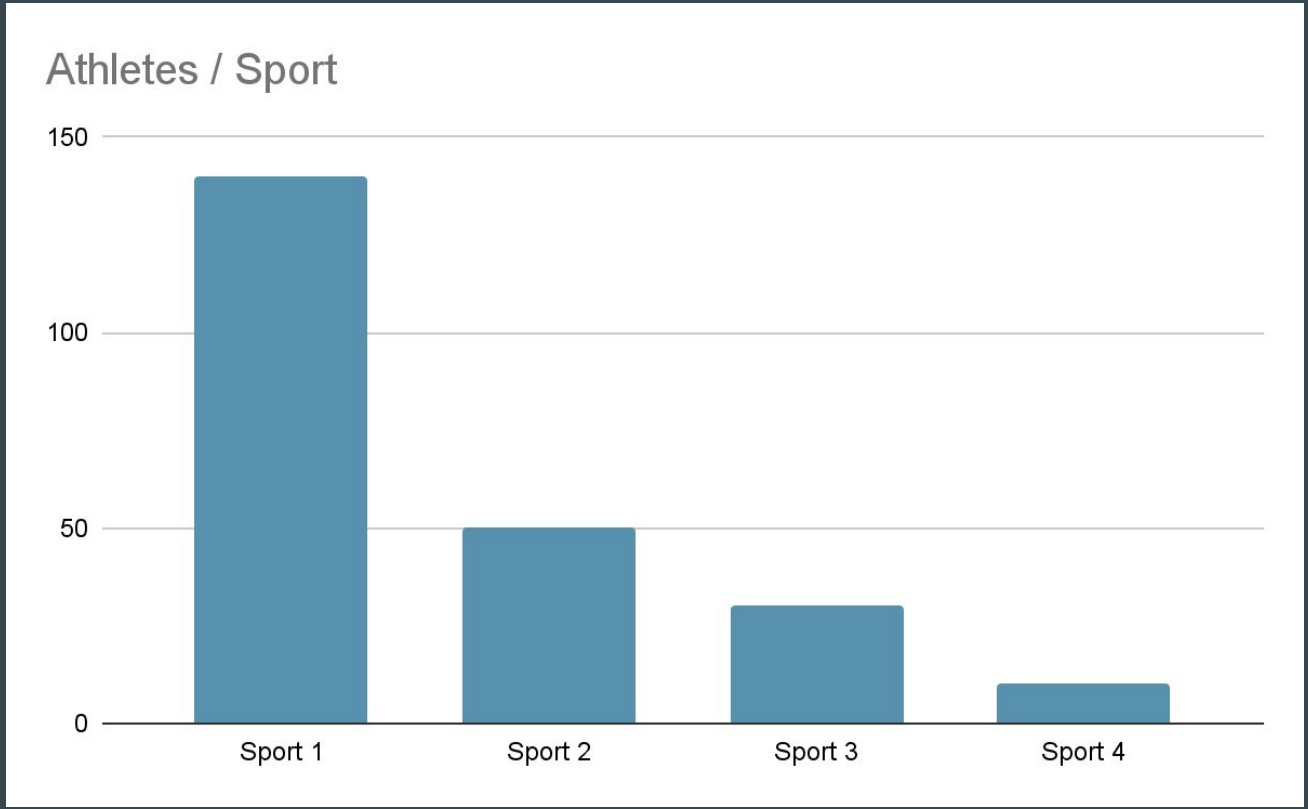
1. Certain visualisation can be combined into one visualisation
2. Would recommend more forms of interactivity to view more in-depth data
3. Use better colour scales to represent the data
4. Not to reuse the colors assigned to gold, silver & bronze to prevent any misconceptions
5. World Choropleth can be more interactive

Improvements

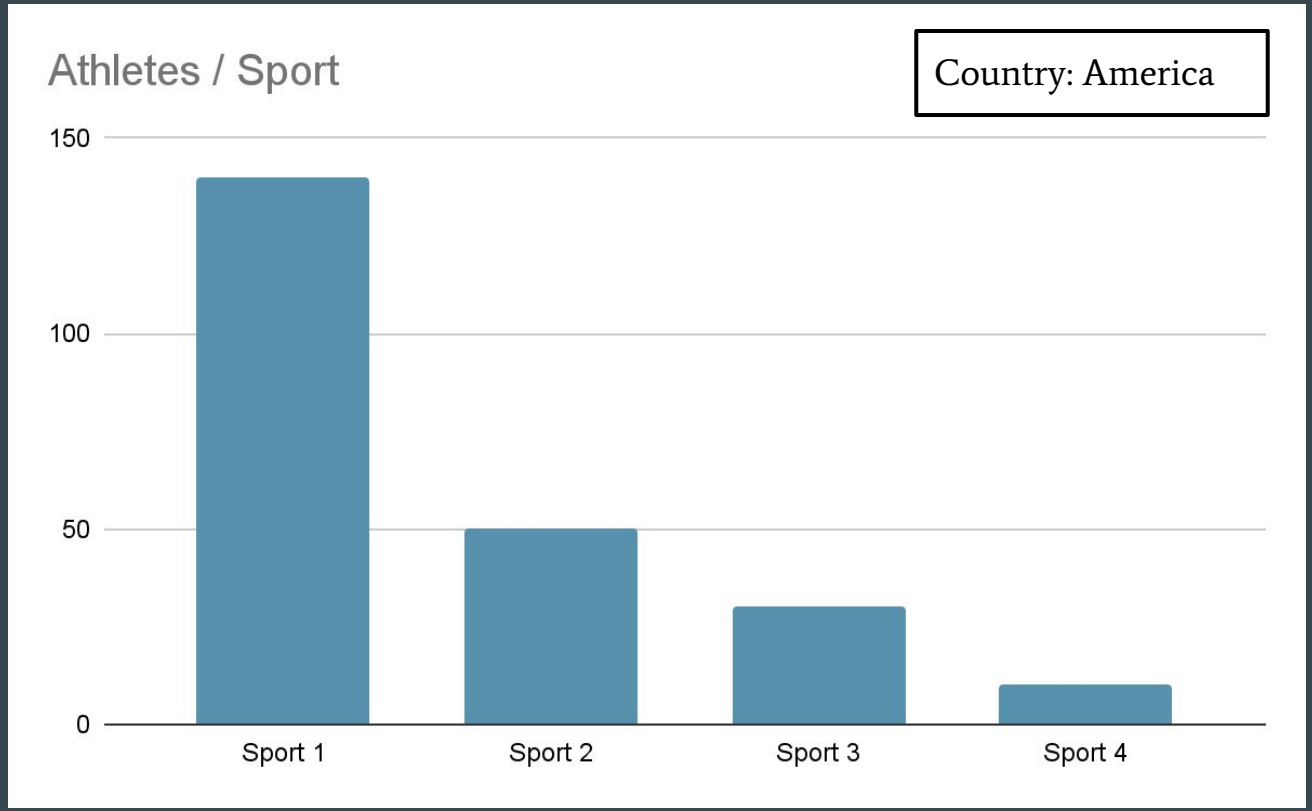
Improvements



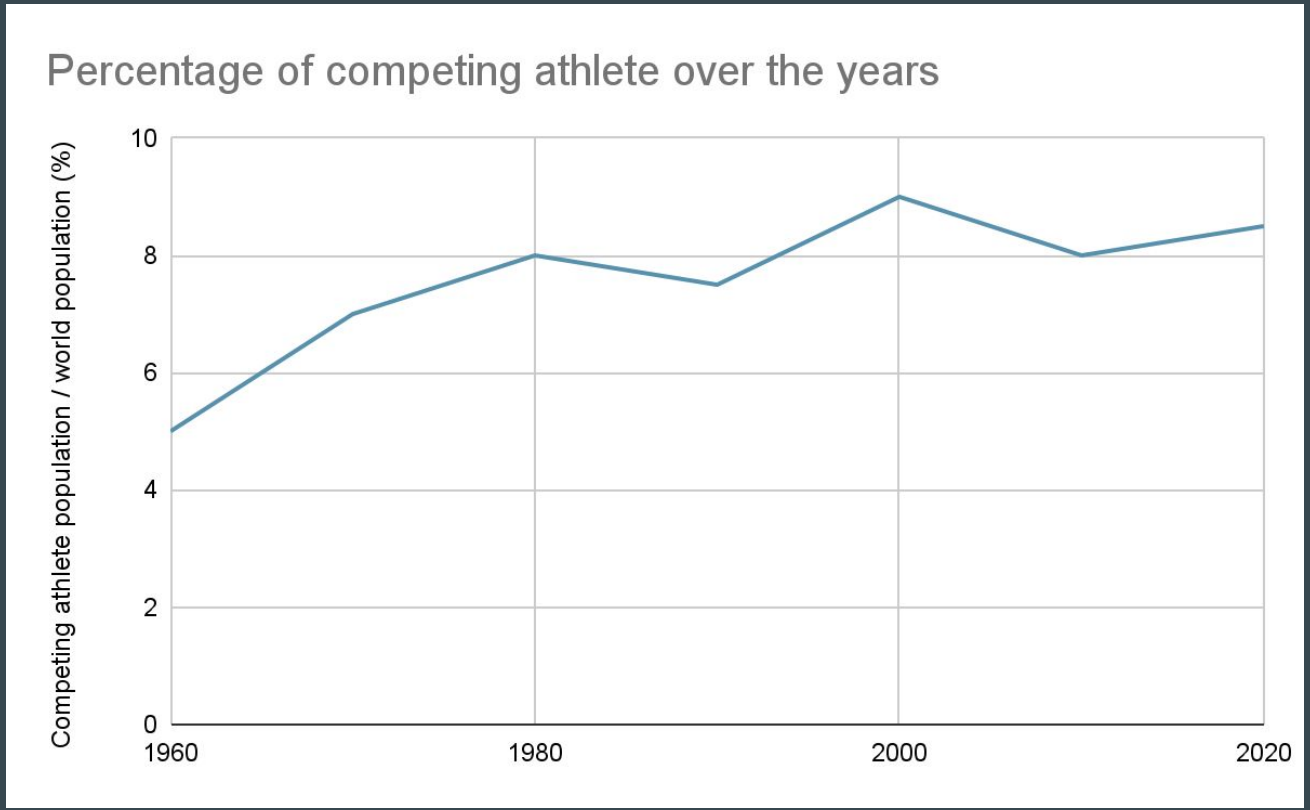
Improvements



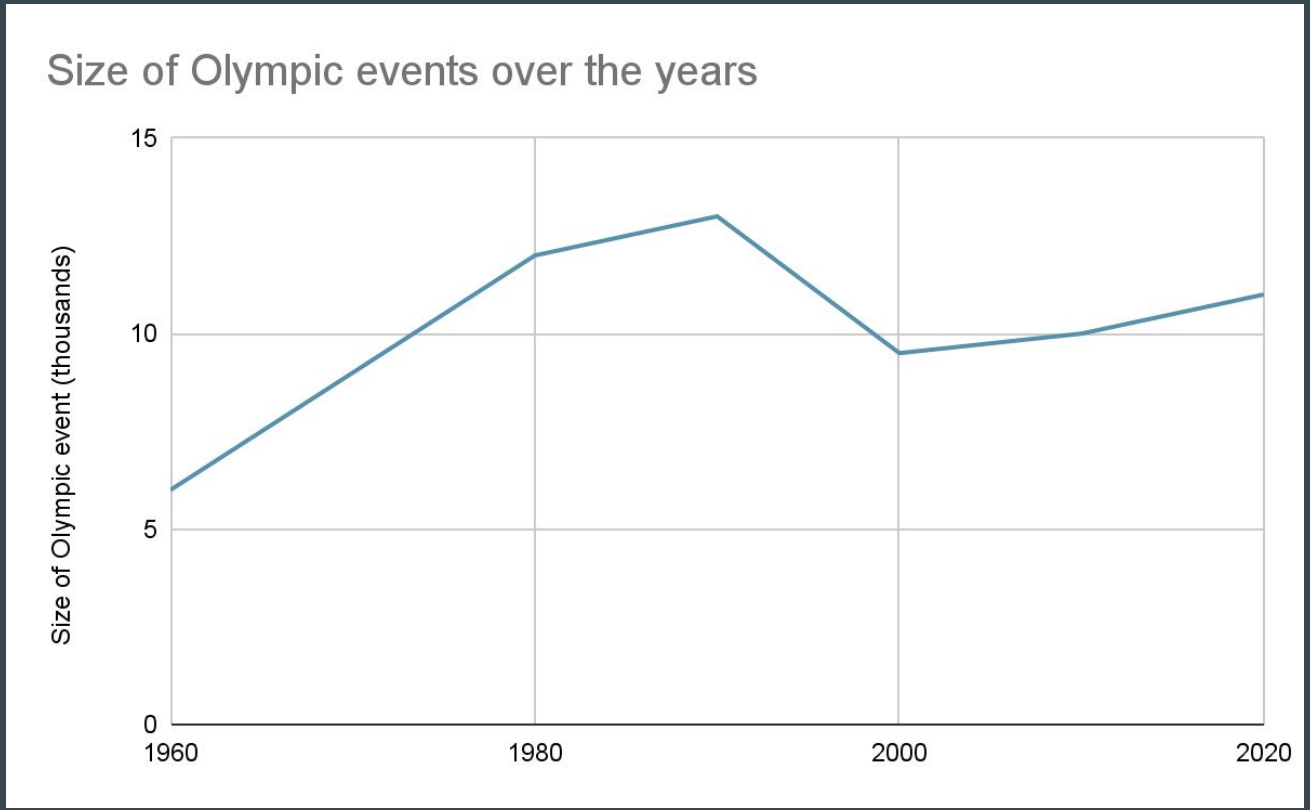
Improvements



Improvements



Improvements



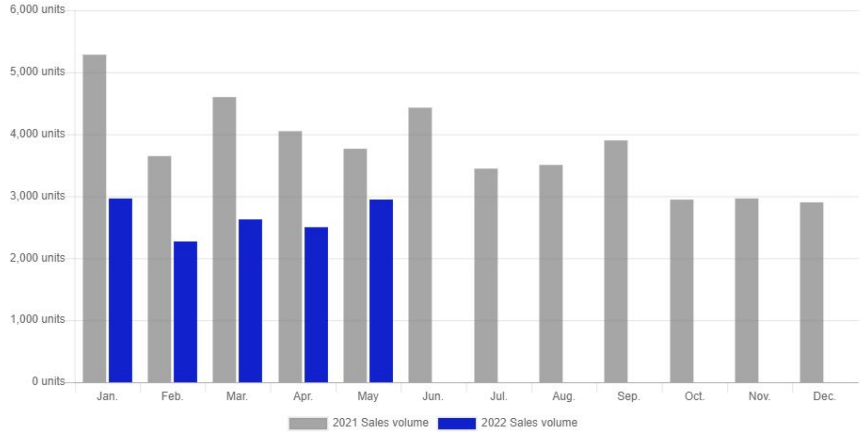
Visualization 2

Singapore Automotive Sales Volume

MENU
- Home
- Daily News Worldwide
- Automotive Sales
  - Models by Country
  - Search By Model/EV/etc.
- Automotive Production
  - Models by Country
  - Search By Model/OEM/etc.
  - Engine Data
- Model Launch Schedules
  - By OEM / Market New
  - Models/Refined search
- Electric/Autonomous
- Market & Tech Reports
  - Latest
  - EV / Exhibitions / Teardowns
  - Forecast Reports
- Benchmarking/Teardown
  - Teardown Reports
  - Fee based data&Report New
  - · Inverter
  - · Side-by-side EV Motor
  - · Tesla Model Y
  - · Tesla Model 3
  - · Model 3 CAD Data
- OEM Plants
  - Plant Location
  - Search (OEM/Region)
  - Capacity Distribution

Home > Vehicle Sales Data > Models by Country > Singapore - Automotive Sales volume, 2022

Singapore - Automotive Sales volume, 2022



2017 2018 2019 2020 2021 2022

Flash report, Automotive sales volume, 2022

Jan. Feb. Mar. Apr. May Jun. Jul. Aug. Sep. Oct. Nov. Dec.

Flash report, May 2022

Jun 14, 2022

*There are cases where recently released data and detailed information in the database do not match up for reasons including different information sources, and discrepancies between preliminary reports and confirmed data.

Critique

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What

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Singapore - Registrations of new cars

Maker/Brand	Dec. 2021	Share	Jan.-Dec. 2021	Share
Toyota	694	23.9%	9,633	21.2%
Mercedes-Benz	286	9.9%	6,421	14.1%
BMW	292	10.1%	5,255	11.6%
Honda	270	9.3%	4,815	10.6%
Hyundai	195	6.7%	2,861	6.3%
Mazda	64	2.2%	2,366	5.2%
Audi	180	6.2%	1,975	4.3%
Nissan	83	2.9%	1,821	4.0%

Why

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Provide accurate information for end-user

How

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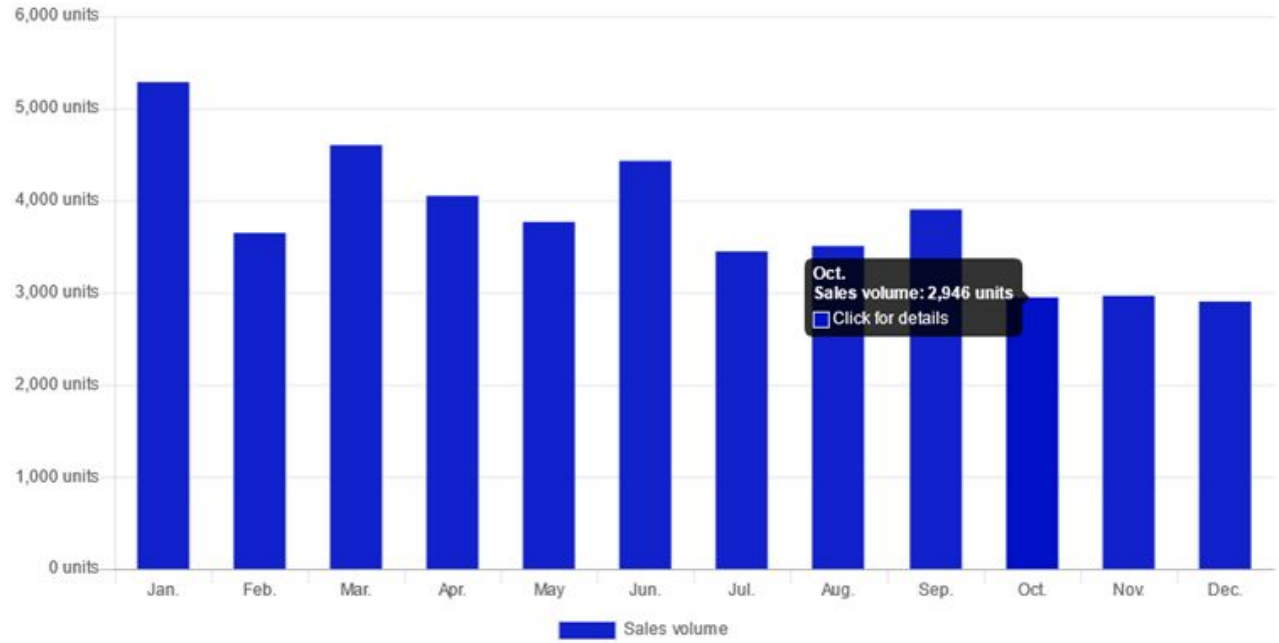
Singapore - Automotive sales volume, 2021



2017 2018 2019 2020 2021 2022

Flash report, Automotive sales volume, 2021

Jan. Feb. Mar. Apr. May Jun. Jul. Aug. Sep. Oct. Nov. Dec.

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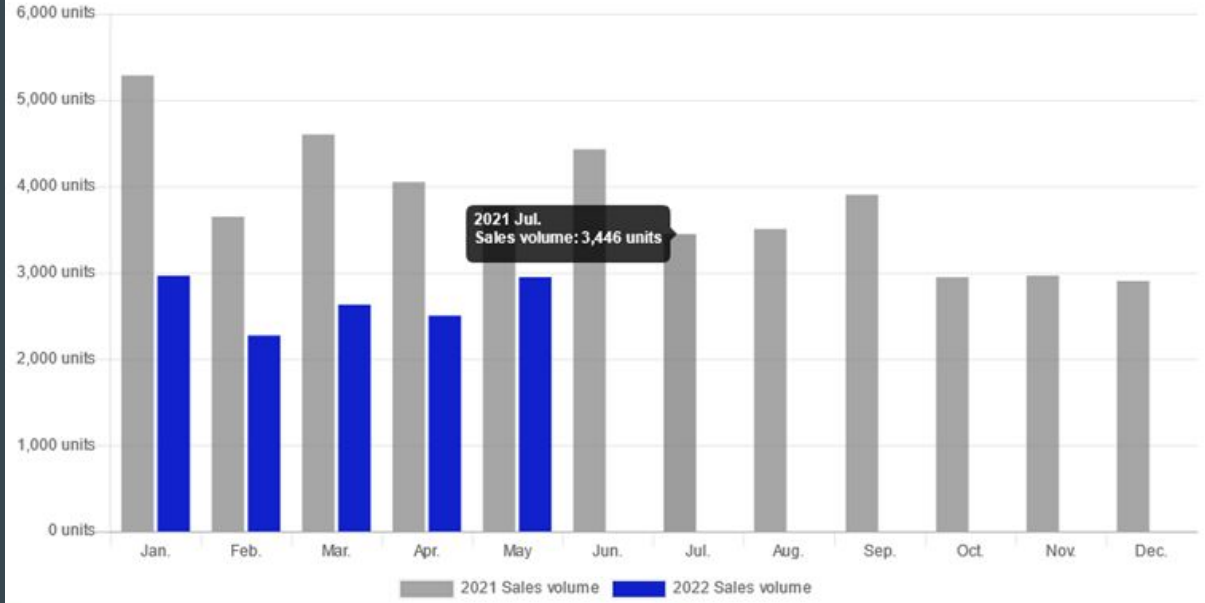
Singapore - Automotive Sales volume, 2022



2017 2018 2019 2020 2021 2022

Flash report, Automotive sales volume, 2022

Jan. Feb. Mar. Apr. May Jun. Jul. Aug. Sep. Oct. Nov. Dec.

Did it achieve its intended task?

1. Does it show the consumer trend
    - Yes, total sales only
2. Which brands should the suppliers stock up for spare parts?
    - Hard to visualise from a table
3. Does it provide any insights of the consumer trend across the years?
    - Yes, in multiple tables and no visualisation

Suggestions

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What

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Why

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How

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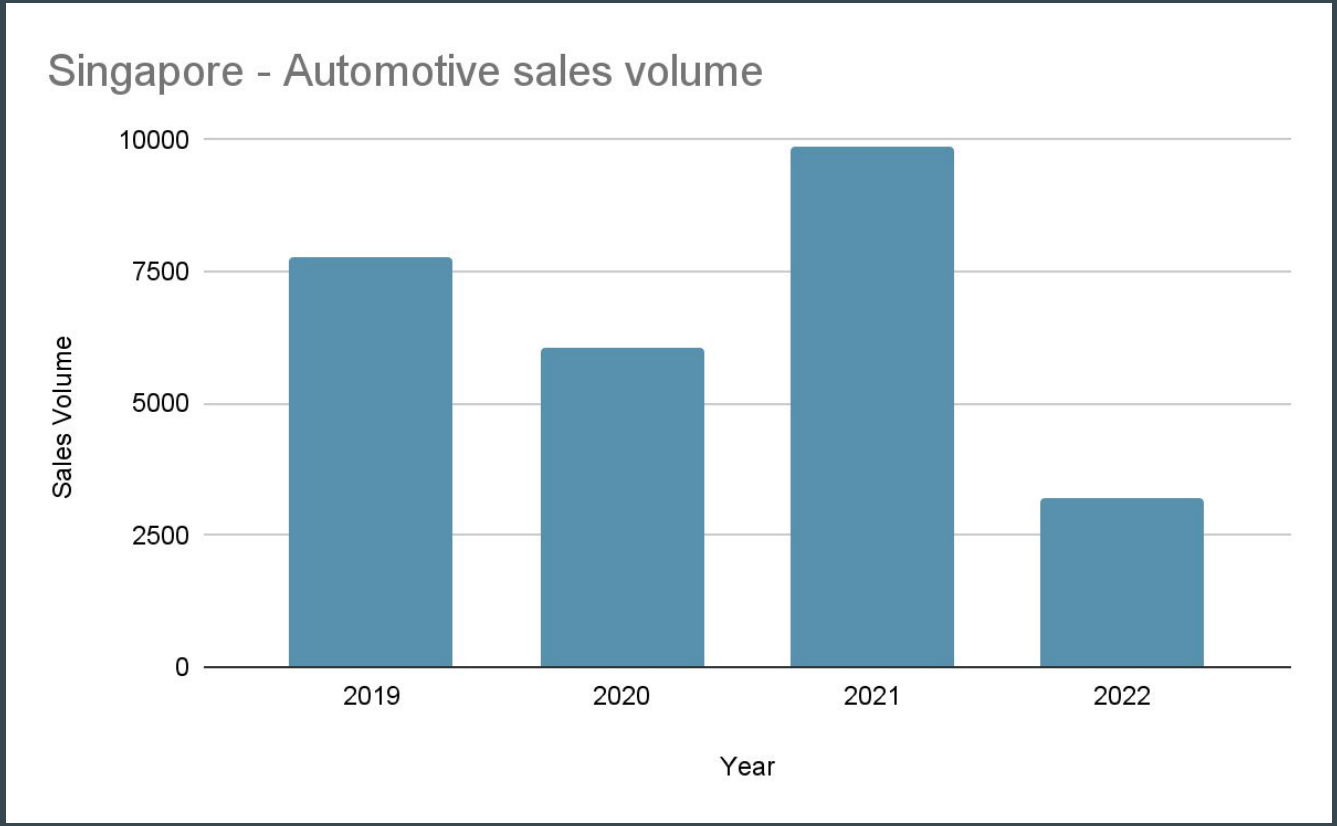
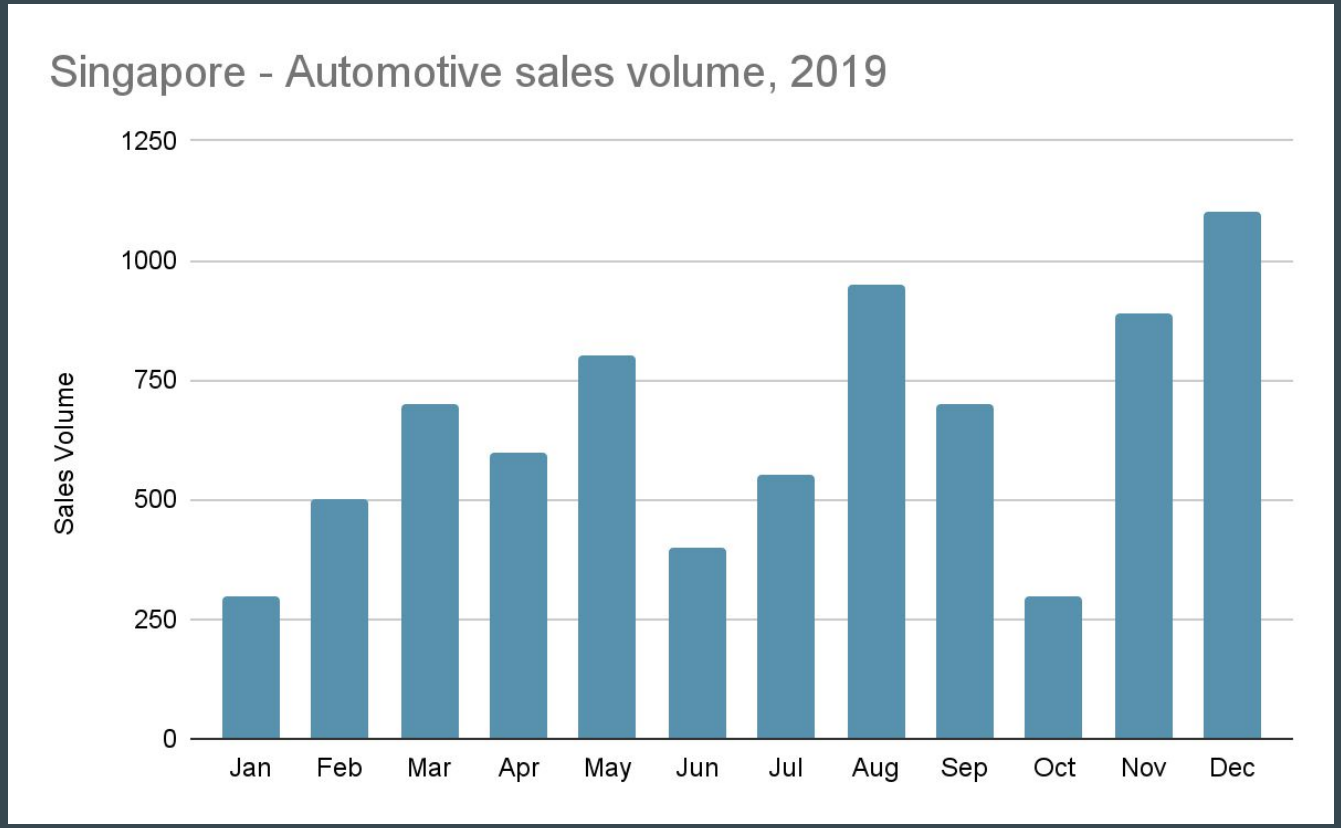
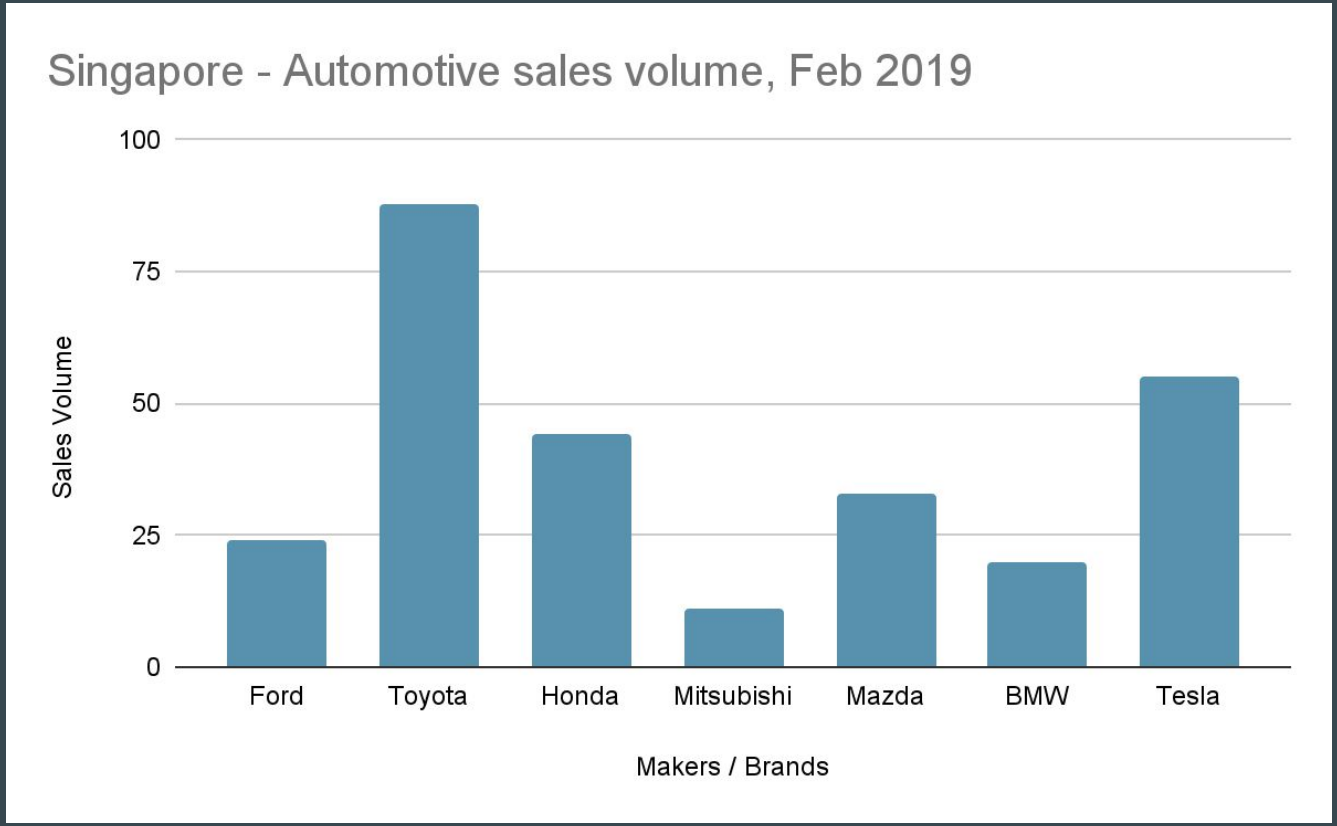
Sales volume by year



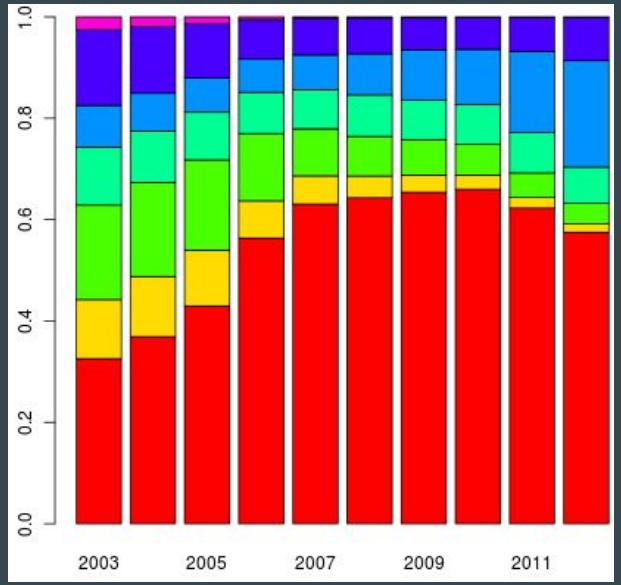
Sales volume by month



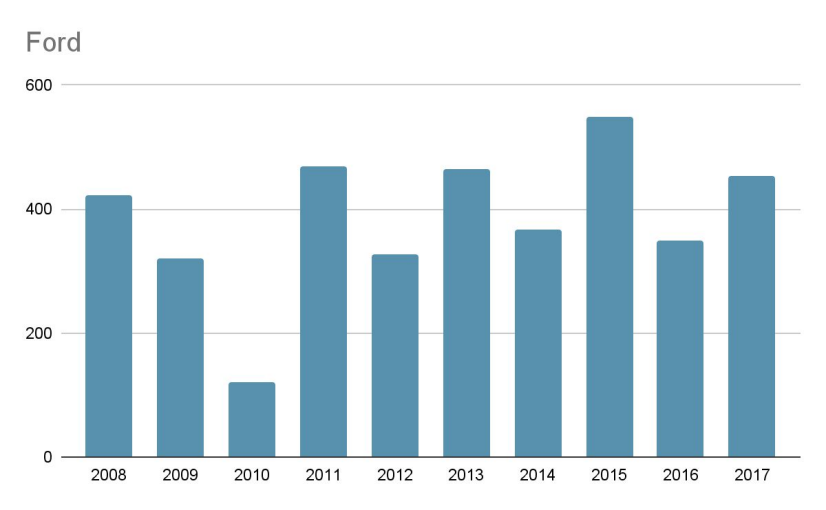
Sales volume by brands for particular month

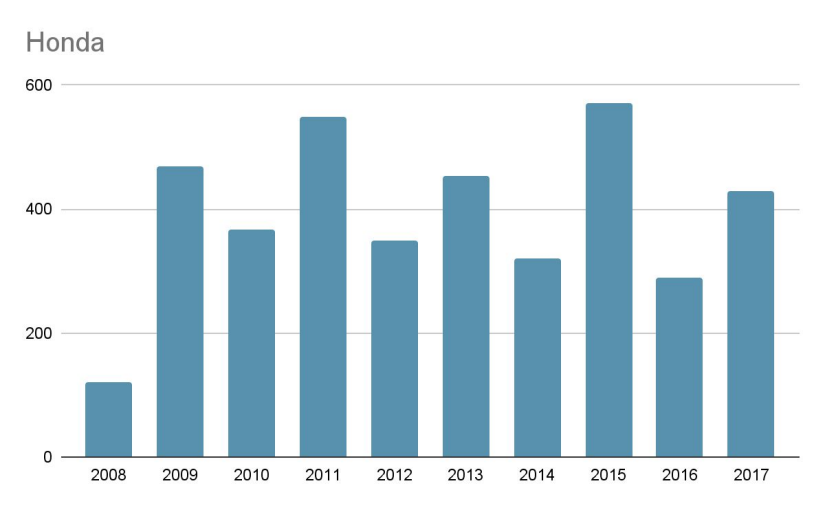


Show market share over years

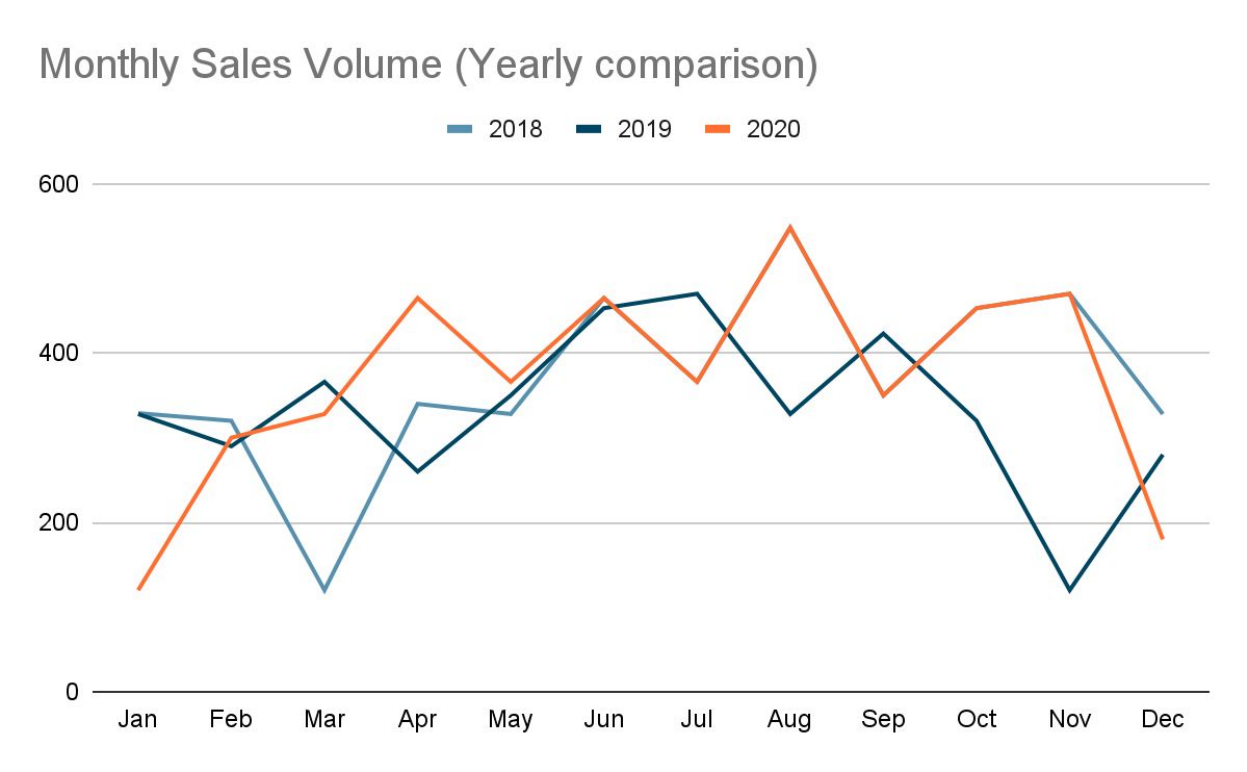


Sales volume by brand over the years





Total sales volume pattern



Project Links

Visualisation 1

- https://github.com/cosmoduende/r-olympic-games
- https://rpubs.com/cosmoduende/olympic-games

Visualisation 2

- https://www.marklines.com/en/statistics/flash_sales/automotive-sales-in-singapore-by-month

End

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