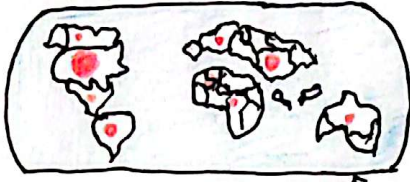


Ideas

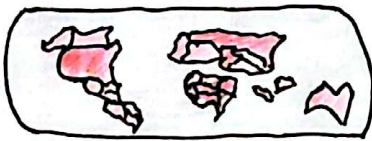
Visualization domain: spaceflight statistics

Maps:

Proportional symbol map:

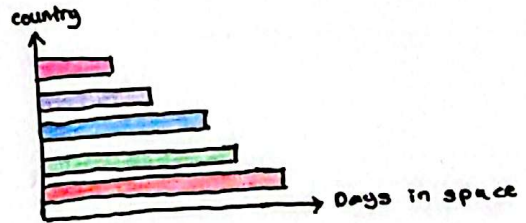
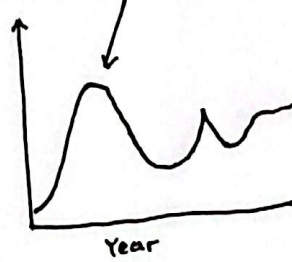


choropleth map:

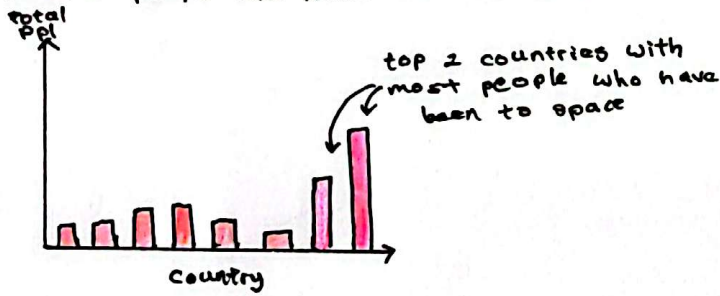


Total space launches by country

Budget Annual budget of NASA

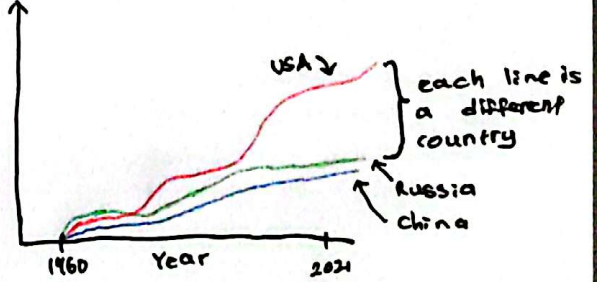


Cumulative people who have been to space:

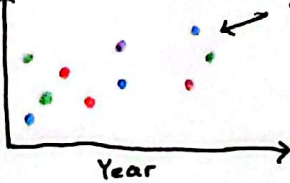


top 2 countries with most people who have been to space

number of people

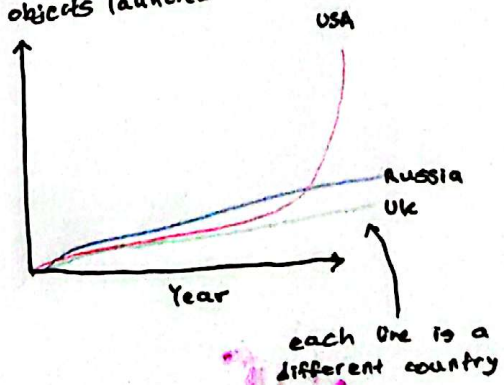


Launch cost per kg



each dot is a class of rocket

cumulative number of objects launched



Title: Human spaceflight

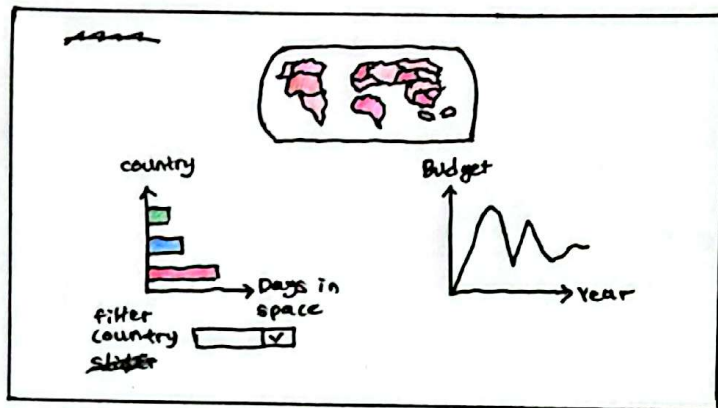
Author: Andrew Chong Han Wen

Date: 12/10/2025

Task: visualize human spaceflight data

Sheet 2

Layout:



- This dashboard visualises number of space launches by each country, this includes: human-crewed missions and satellite missions.
- Total number of days in space per country and budget of NASA per year

Discussions:

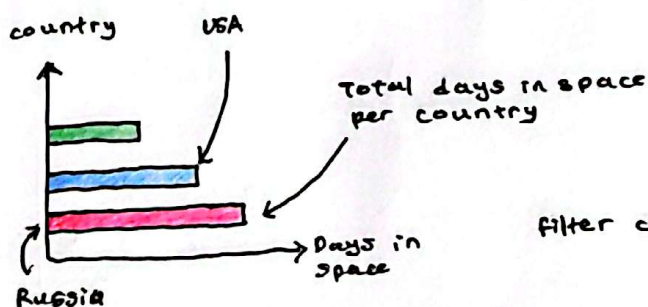
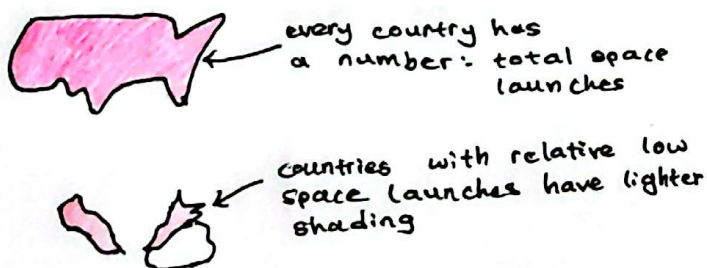
pro: wide variety of data covered

con: Annual budget of NASA is too specific to one country

→ visual elements can be placed sequentially for readability and more real estate area

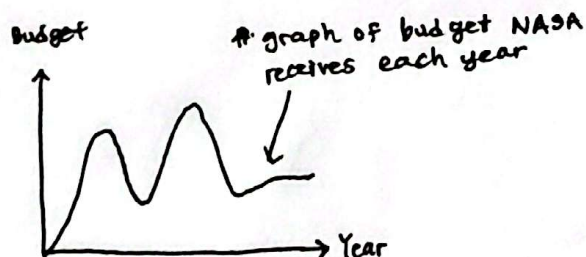
Focus + operations

choropleth map:



filter country:

USA	<input checked="" type="checkbox"/>
China	<input type="checkbox"/>



Title: Human spaceflight

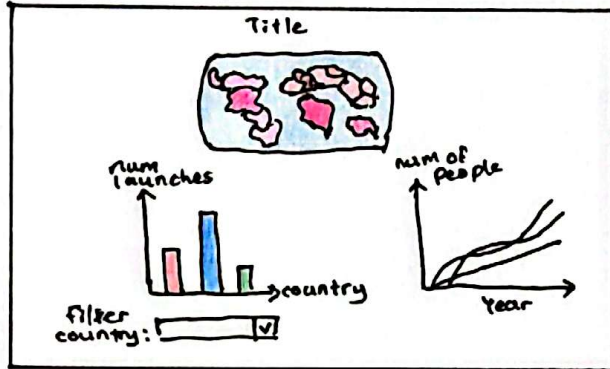
Author: Andrew Chong Han Wen

Date: 12/10/2025

Task: visualize human spaceflight data

Sheet 3

Layout:



- This dashboard focuses on spaceflight by country and by time frame.

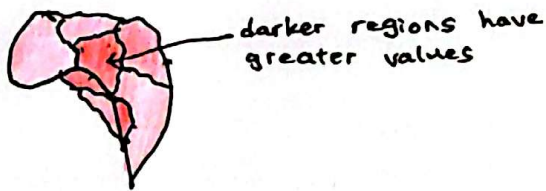
→ Positives: Data used is more cohesive, as opposed to sheet 1 using NASA data

→ Negatives: Number of launches for countries like USA are huge, which dominates smaller countries

- A proportional symbol map is more suitable for absolute values

Map:

→ used to visualize cumulative number of people who have been to space

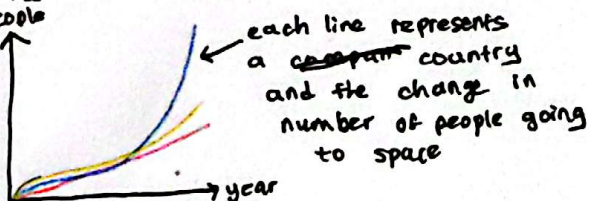


cumulative number of launches



→ total number of objects launched into space

number of people



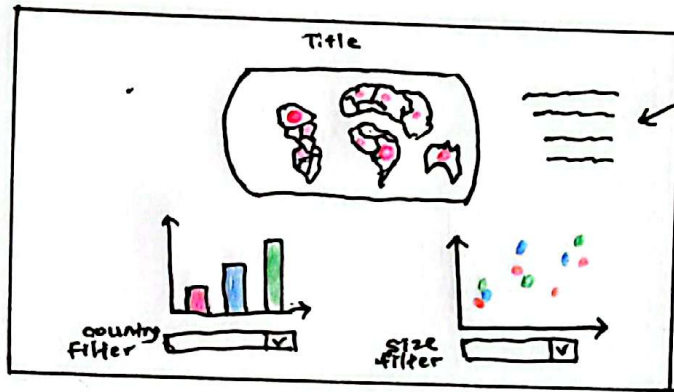
Title: Human Spaceflight

Author: Andrew Chong Han Wen

Date: 12/10/2025

Task: Visualize human spaceflight data
Sheet 4

Layout:



storytelling elements

Discussions:

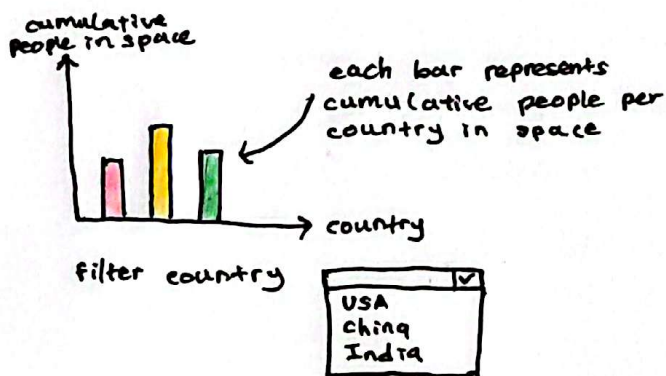
- This dashboard includes rocket cost data from different countries
- Includes storytelling elements, which allows users to understand the spaceflight data
- Includes filtering for country and rocket class
- bubble chart may be hard to view and cluttered

Proportional symbol map:



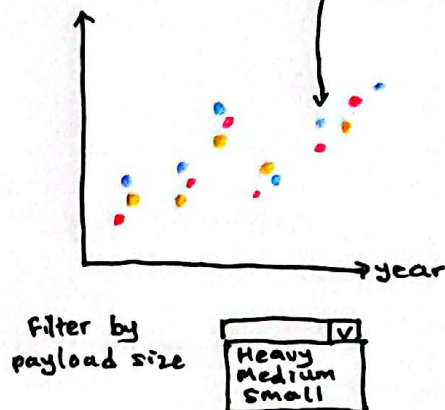
cumulative space launches per country

→ Proportional symbol map is used as data are absolute values



Launch cost per kg

each colour for a different rocket category



Title: Human spaceflight

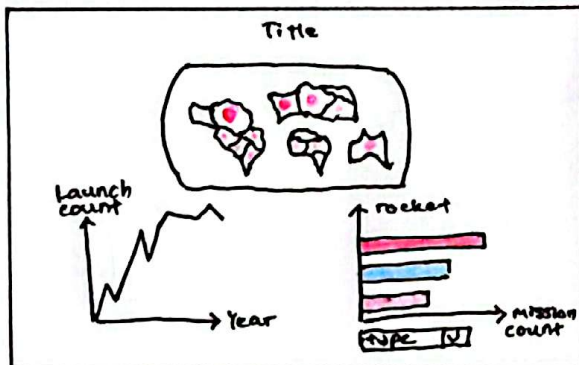
Author: Andrew chong Han Wen

Date: 12/10/2025

Task: Visualize human spaceflight data

Sheet 5

Layout:



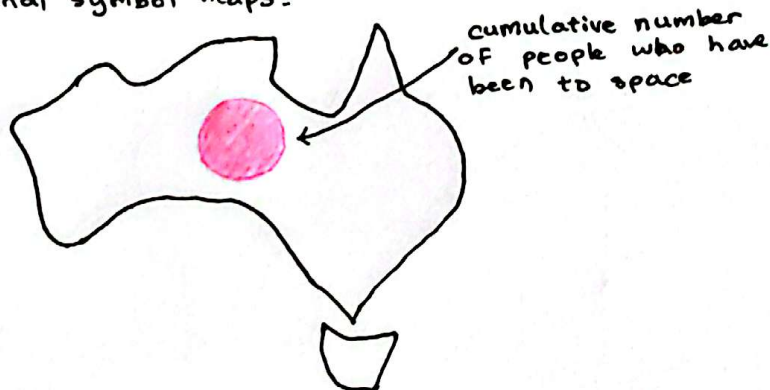
Discussions:

Negatives: cumulative number of people in space is small for countries, countries like USA will dominate the scales

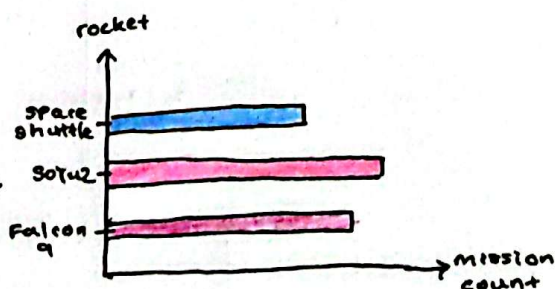
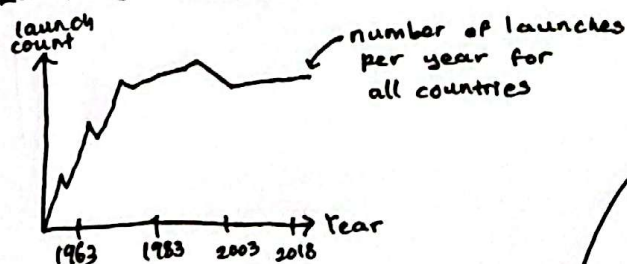
→ Map uses proportional symbol map for absolute values

→ Dashboard is too simple needs at least one more visual as there is sufficient space

Proportional symbol maps:



Launches timeline:



multiple rocket types from different countries

