

Idea

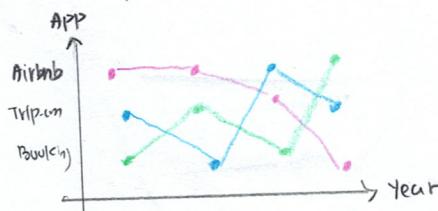
① tourism revenue by country
(a) proportional symbol map



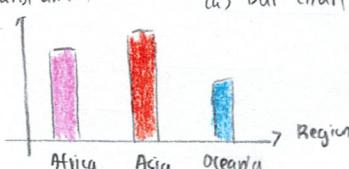
(b) choropleth map



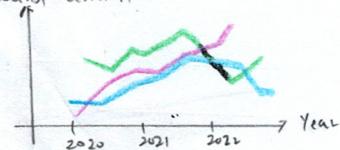
(b) Accumulation Apps
(c) bump chart



② international tourist arrival by region
tourist arrival

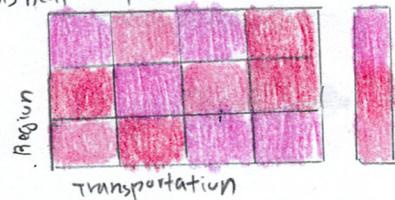


(b) line chart
Tourist arrival

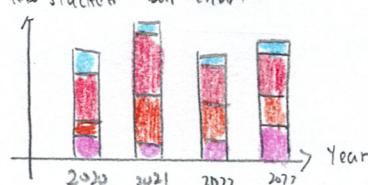


(c) Transport preference when travelling by region

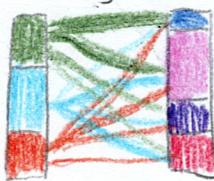
(d) heat map



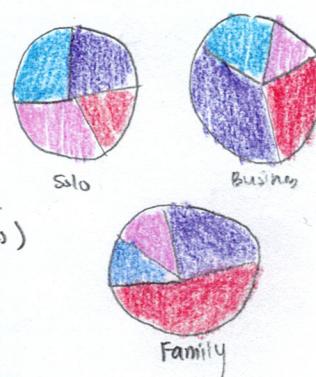
③ tourism GDP percentage
(a) stacked bar chart



(b) Travel Budget
(c) Sankey diagram



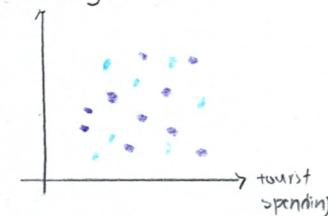
(b) small multiples pie chart



(c) tourist spending

vs
local prices

(a) scatter plot
cost living index



④ Travel Benefits

(a) word cloud
try new food
Personal Growth
New Connections
Self-discovery

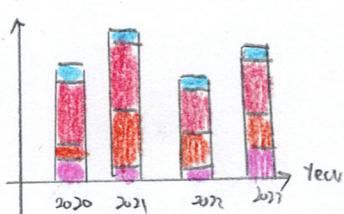
relax mind

(a) Flight Path (popular routes)



Filter

3(a) stacked bar chart



- too many countries to stack on the bar

Categorize

Available Data

Global Tourism Overview

- tourism revenue by country
- international tourist arrival by country
- tourism GBP percentage

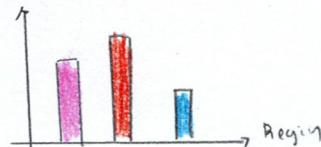
Travel Data/Tech

- travel budget
- transport preference
- travel benefits

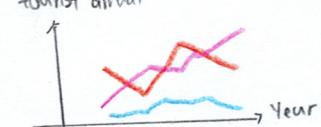
Combine & Refine

2(a) + 2(b)

tourism arrival

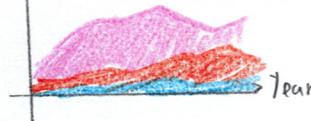


tourist arrival



Tourist arrival

=



⇒ to better view the trends of tourist arrival for certain region over the years

4(a) travel budget

⇒ could also find out if different region would have different budget

Questions

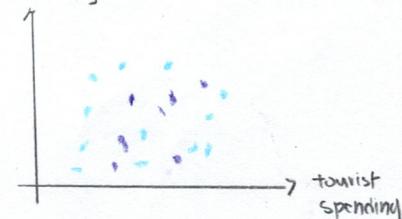
1) Is it showing enough insights fit viewer?

2) Are there enough charts? or is there better complex chart to visualize the data?

3) Is the visualizations double in Vegetable?

8(a) scatter plot

cost-living index



- too simple to be included for assignment!

- hard to find data

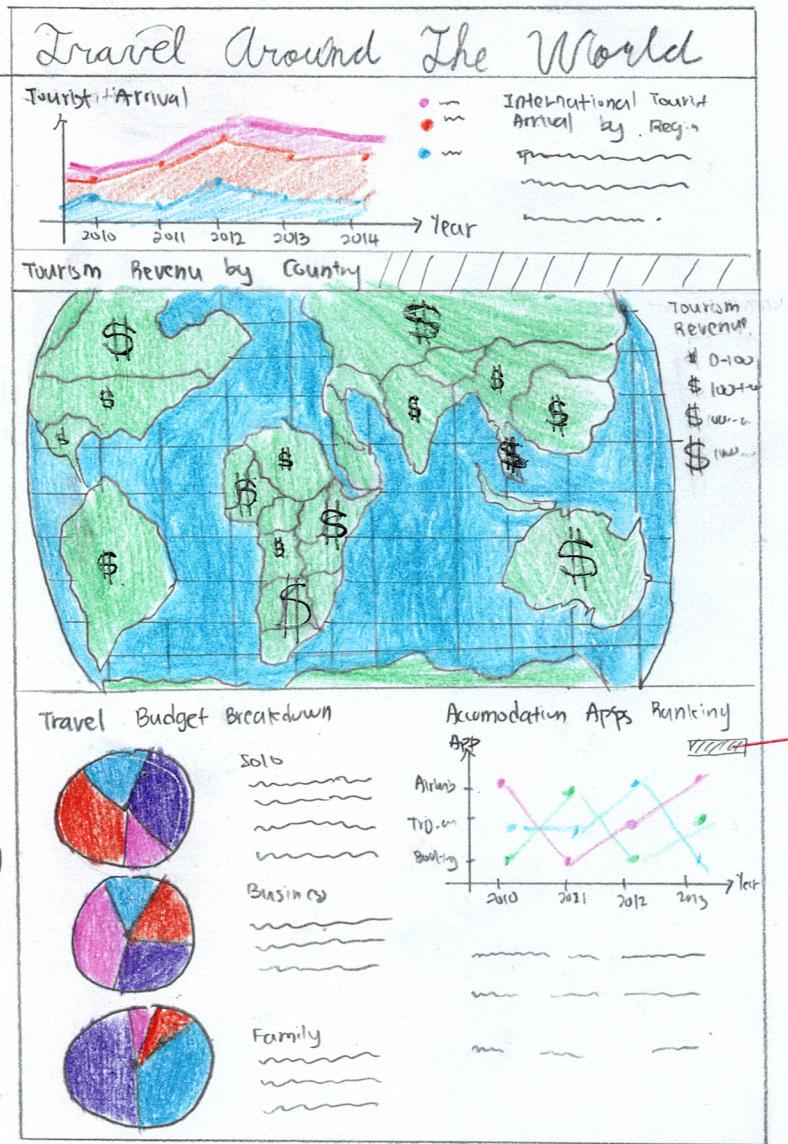
Author: Sham Mai Sung

Date: 21/9/2024

Sheet: 1

Task: Brainstorming

LAYOUT



Title: General Dashboard Layout

Author: sham kui song

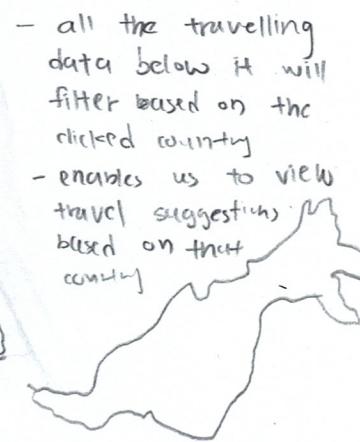
Date: 25/9/2024

sheet: 2

Task = Design a Layout

OPERATIONS

- a) country filter on the map



- all the travelling data below it will filter based on the clicked country
- enables us to view travel suggestions based on that country

- b) // / / / /

Top n apps selection

→ enable viewer to view top n ranking of accommodation app based

potential additions

- highlight region on the map based on the legend in the stacked area chart

FOCUS

- The proportional symbol map is the main focus of the dashboard where it will also serve as the main country filter for the travel suggestions visualisation below it.
- Part ① serves as an explanation of how part ② as to how that region with higher tourist arrival will have higher tourism revenue.
- Part ③ explains travel suggestions to go to certain country / overall based on clicked country on the map

DISCUSSION

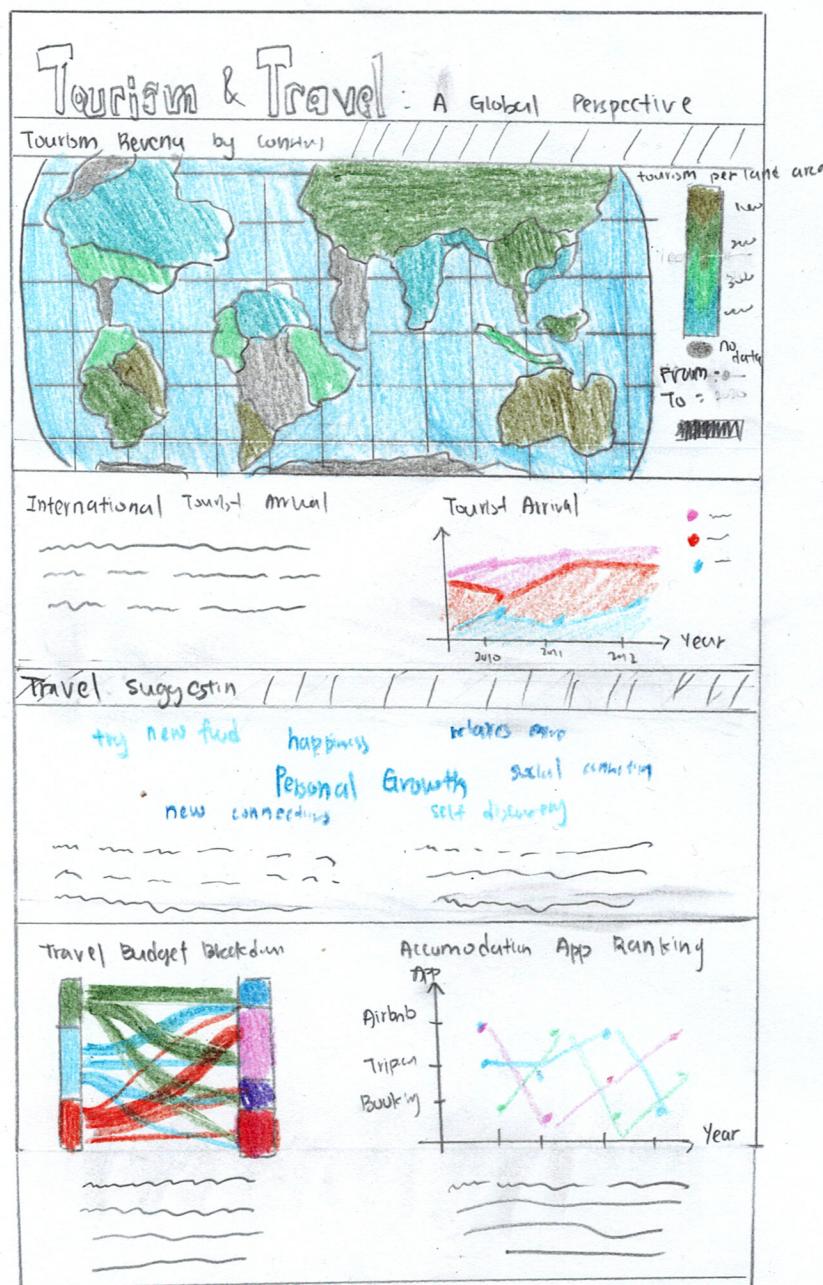
Pros

- ↳ good exploration into global tourism and travelling
- ↳ interactive and appealing with the colours
- ↳ descriptions provide better understanding of the visualisation

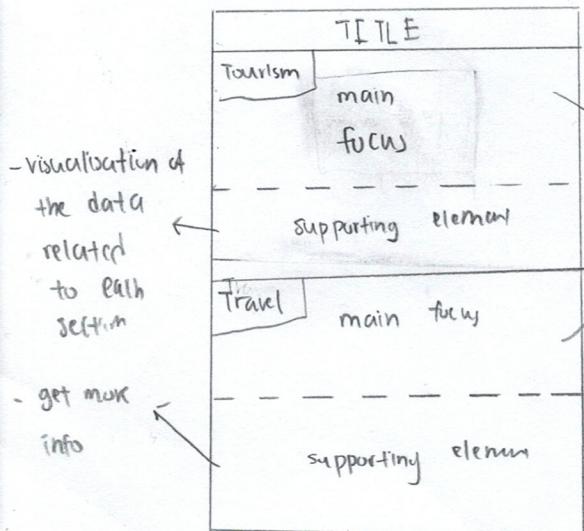
Cons

- ↳ minimal filters
- ↳ usage of tooltips?
- ↳ might be hard to arrange using HTML and CSS

LAYOUT



FOCUS



- main focus for both of the sections to catch attention of viewers
- slightly more interesting charts
- enable reader to continue reading

Title: Improved Dashboard #1

Author: Sham Kai Song

Date: 26/9/2024

Sheet: 3

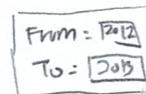
Task: Improve previous dashboard

OPERATION

1) Filtering Region

- allow user to select a specific region from a dropdown menu to focus on

2) Year Range Filter



- to calculate the average tourism avenue over those years

3) Clickable legend

- choropleth map's legend clickable to show only the countries that falls into the category/range

4) Tooltips and Annotation

- to show more accurate information

DISCUSSION

Pros:

- ↳ good use of figure-ground on the title

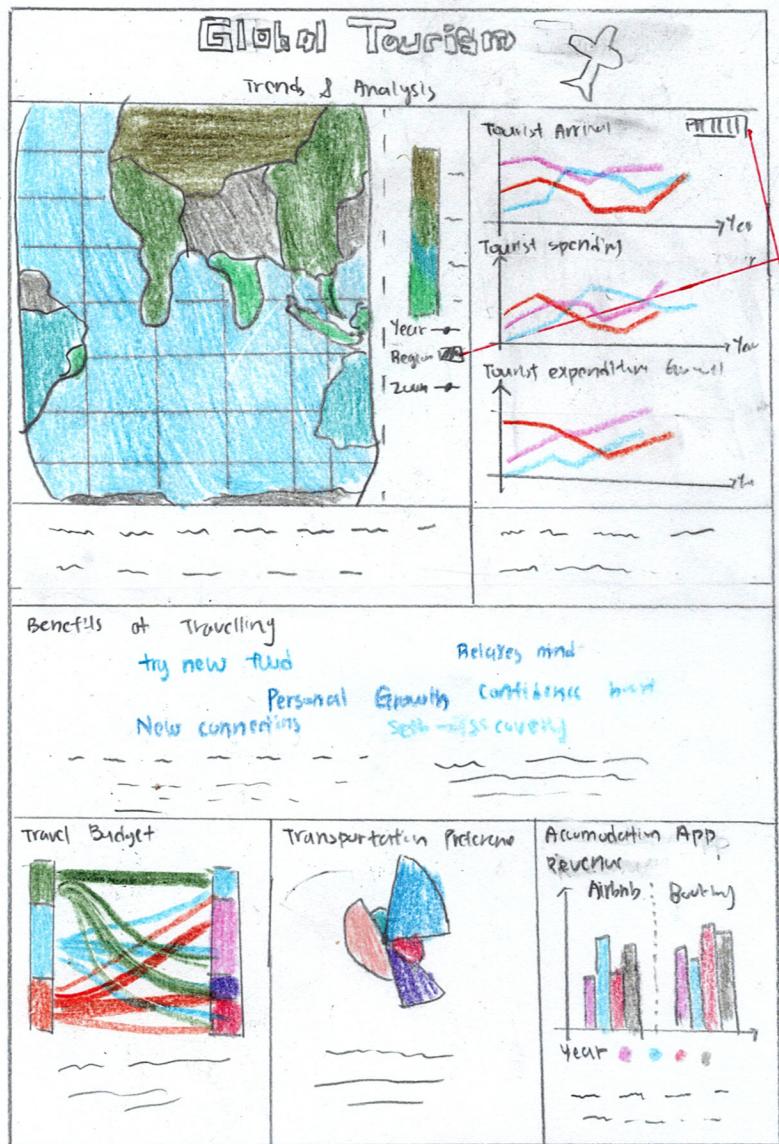
- ↳ good use of human's reading direction from left to right and guide the viewer down from the map to the stacked area chart.

Cons:

- Lack of interactivity

- better colour palette could be used for example: the sankey diagram

LAYOUT



Title: Improved Dashboard #2

Author: sham kai sony

Date: 27/9/2024

sheet: 4

Task: Improve sheet 3 dashboard

OPERATION

1) Region / focus on map

→ to enable user to focus on certain region

2) zoom slider 1000 on map

→ so that user can see data of smaller countries

3) Year slider 2010 → 2024 on map

→ to able to analyze the trend over the years

4) Country selection



→ to see the data focused on that country

Tooltip and Annotation

- when hovering on the bars/line/map, will show detailed information, and reduce the opacity of other selection.

- annotation on map to highlight interesting country

FOCUS

Title	
Tourism overview	Tourism overview Analysis
(1)	
(4) Travelling	(5) Suggestions
(6)	

Tourism

- (1) is used for global overview of how tourism performs

- (2) is to provide supporting analysis for (1) to see the 'what and why' of the trend

Travel

- (3) shows the benefit of travelling with a word cloud

- (4), (5), (6) shows the suggested budget, transportation and accommodation app to be used.

DISCUSSION

Pros

↳ clear segmentation of information, allow viewers to focus on specific type of data without overwhelming them

↳ viewer can see different perspective of data with different visualisation

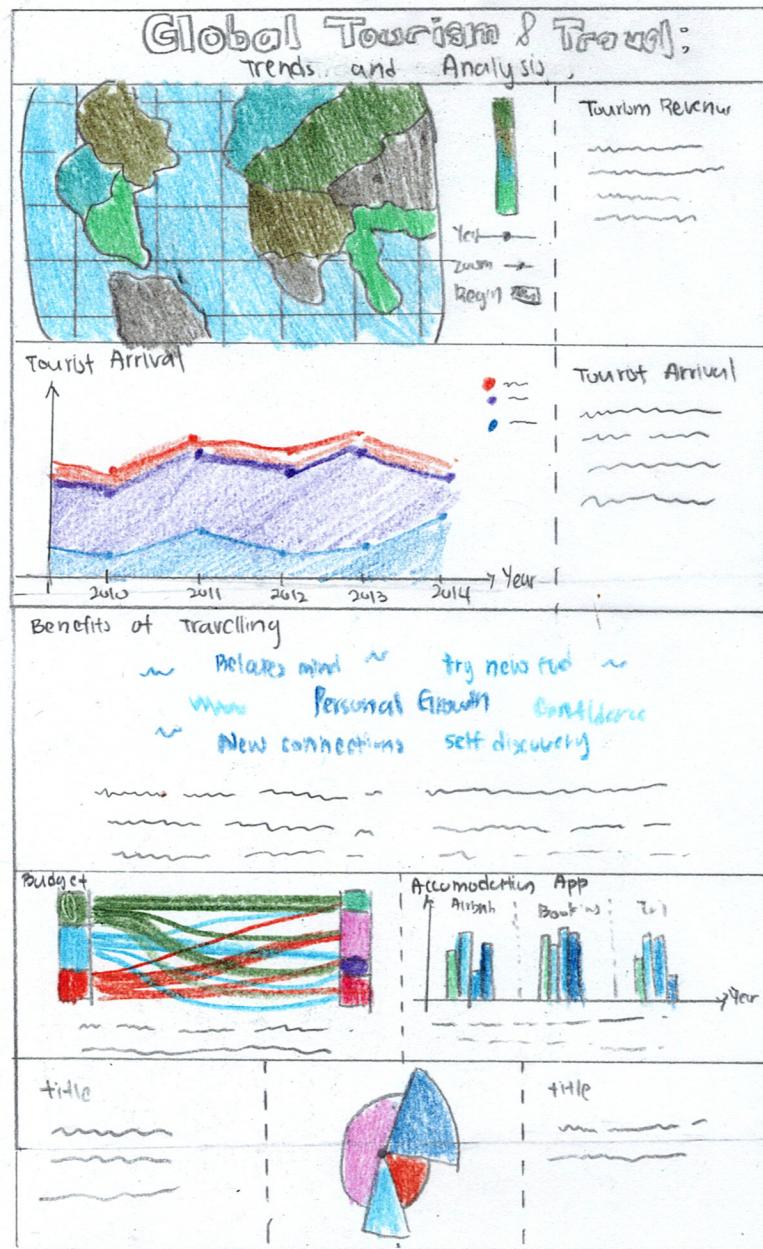
Cons

↳ potential for information overload

↳ may have clutter for smaller screens if put three columns of visualisation at least part

LAYOUT

Based on sheet 3 and sheet 4



Title: Final Design

Author: Sham Kai Song

Date: 28/9/2024

Sheet: 5:

Task: Finalizing Design

OPERATIONS

Main Operations on Maps

1) Year slider 2014 → 2024

→ to enable user to analyze the trend over the years

2) Region selector to focus

→ to enable user to focus on certain region



3) Zoom slider 150 → 1000

→ so that user can see data of the smaller countries.

Other Operations

4) Clickable legend

→ choropleth map and stacked area chart are clickable so that it focus on the data

ToolTips and Annotation

⇒ When hovering on the charts, will show detailed information about it and reduce opacity of other bars/lines

⇒ annotation on map to highlight interesting data

FOCUS

Title		Tourism
Tourism	Overview (1)	→ (1) is used to provide overview of tourism globally
	Insights (2)	→ (2) is used to provide insights about tourism
Travel	Travel Benefits (3)	→ (3) is used to catch attention of viewer with appealing chart
	Travel Suggestions (4)	→ (4) is used to suggest traveling necessities

DETAILS

Dependencies

↳ sigmoid function for sunkey diagram

↳ data cleaning and wrangling using R
⇒ for efficiency

↳ regularize for creating visualisation

↳ building dashboard using HTML, CSS and JS

↳ hosting using github

Estimated Time

Charts: 3~4 days

Dashboard arrangement: 2~3 days

Specific Requirement

↳ sketch

↳ a working device