

# EXPLORING TOURISM IN MALAYSIA

## IDEAS

Top Tourist sources by country (Bar chart)



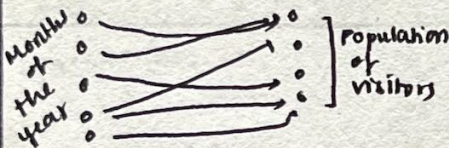
Gender Demographics (Pie chart)



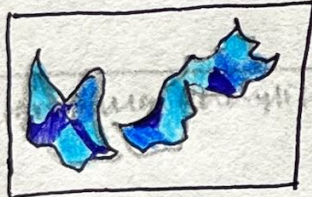
Mode of Travel (Pie chart)



Seasonal Trends

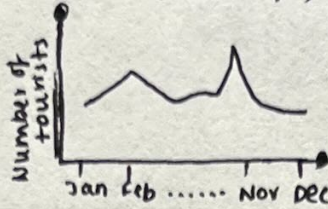


Geographical Analysis State Wise Trends (Map)

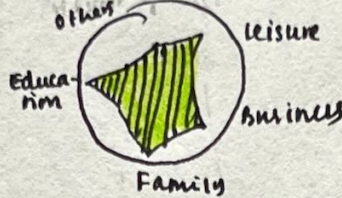


Choropleth Map

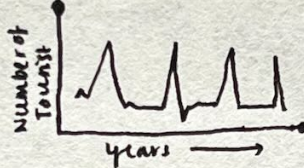
Monthly Tourist Arrivals (Line graph)



Purpose of visit (Radar chart)



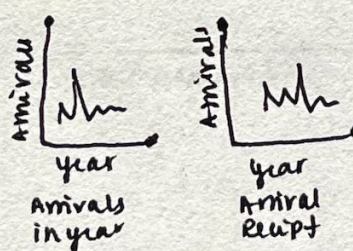
Tourism growth over a decade (Area chart)



Stay duration (Bar chart)

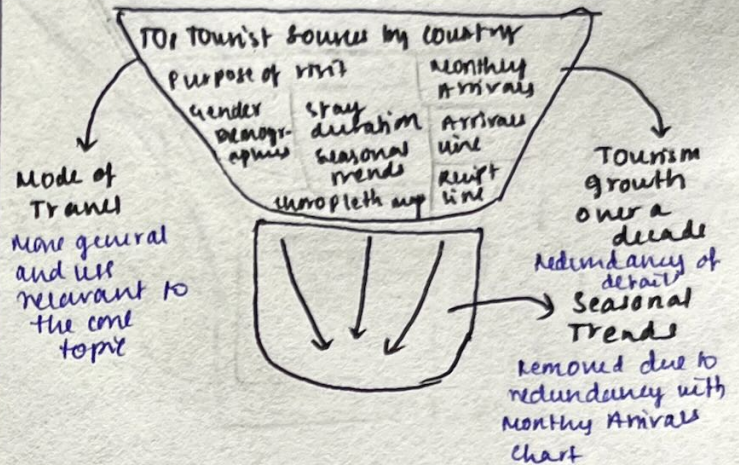


Revenue Generation (Line chart x2)

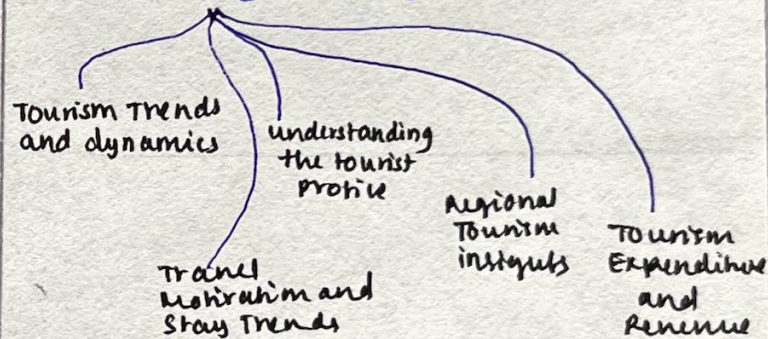


## FILTER

Top Tourist sources by country Monthly Tourist Arrivals  
Gender Demographics Purpose of visit stay duration Arrival line chart  
Tourism growth Seasonal trends Receipt line chart Choropleth map



## CATEGORIES



## CONSIDER AND REFINING

- Top Tourist sources by country [Bar chart] → [Bump chart]
- Monthly Tourist Arrivals [Line chart] → [Heatmap]
- Gender Demographics [Pie chart] → [Donut chart]
- Revenue Generation [2x line chart] → [dual line chart]
- Purpose of visit [Radar chart] → [Donut chart]
- Stay duration [Bar chart] → [Lollipop chart]
- Choropleth map remains the same

## QUESTIONS

- Does this provide analysis to the topic with?
- Clarity: clearly communicate the idea & story?
  - Comprehension: are the visuals easy to understand?
  - Coverage: does the categories cover all aspects?
  - Accuracy: is the data accurate and reliable?



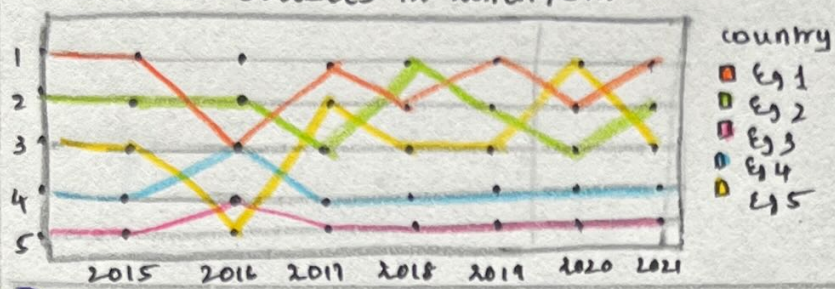
# LAYOUT - Grid Based Dashboard

This layout employs a grid system for organizing different visualisations and metrics, allowing users to easily scan through information

TITLE: Dashboard view  
 AUTHOR: Nailiya Ganesan  
 DATE: 29/09/2024  
 SHEET: 2  
 TASK: Tourism in Malaysia

## EXPLORING TOURISM IN MALAYSIA

### TOP TOURIST SOURCES IN MALAYSIA



### TOURISM TRENDS AND DYNAMICS

X ————— X  
 X ————— X

### UNDERSTANDING TOURIST PROFILE

X ————— X  
 X ————— X

### TOURISM EXPENDITURE AND REVENUE

X ————— X  
 X ————— X

### REGIONAL TOURISM INSIGHTS

X ————— X  
 X ————— X

### TRAVEL MOTIVATION & STAY TRENDS

X ————— X

upon click this expands to show a heatmap

it shows a donut chart + horizontal bar chart

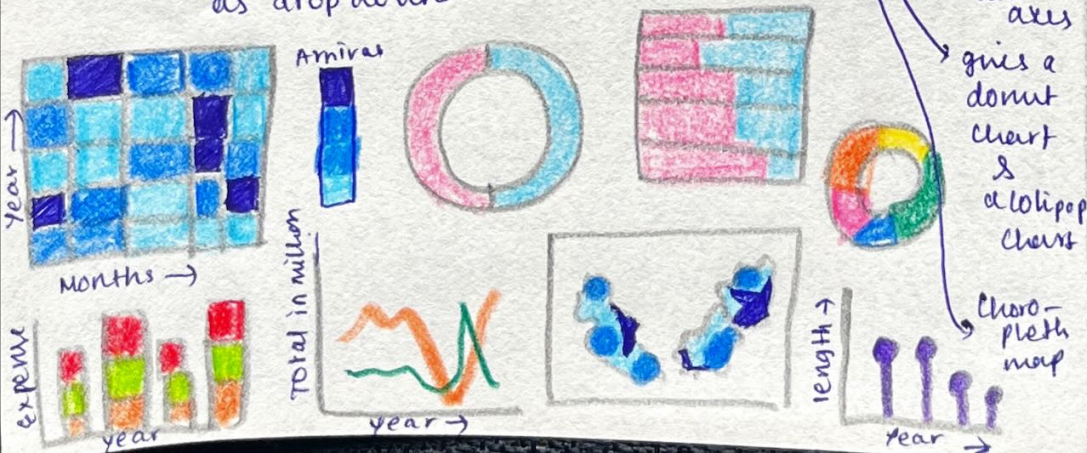
gives two charts a stacked bar chart and a dual line axes

gives a donut chart & aollipop chart

Choropleth map

## FOCUS

The central focus is on the top tourist sources and the below come as drop down



## OPERATION

Navigation: easy to navigate through the dashboard using the grid layout

Interactive filters:  
 for the age demographics chart it displays individual options allow

• Tooltips for all charts  
 • Hover effects

Drop down menu: Expand to know more about the enclosed topic

## DISADVANTAGES

Advantages:

- ✓ clarity & organisation
- ✓ comprehensive overview
- ✓ interactivity
- ✓ adaptability

Disadvantages:

- ✓ clutter as too many added to one section
- ✓ some visualization charts may be too small to interpret the data points accurately
- ✓ compatibility: The detailed layout may not adopt well on small screens.



# LAYOUT - Tabbased Navigation

This layout is designed using navigation tabs, where users can switch between different aspects of tourism in Malaysia

## Exploring Tourism in Malaysia

Overview Demographics

Geographic trends Expense & Revenue

Travel Motive

X \_\_\_\_\_ Text \_\_\_\_\_ X  
X \_\_\_\_\_ X

①

## Exploring Tourism in Malaysia

Overview Demographics

Geographic trends Expense & Revenue

Travel Motive

X \_\_\_\_\_ X  
X \_\_\_\_\_ X

CHART X

③

## Exploring Tourism in Malaysia

Overview Demographics

Geographic trends Expense & Revenue

Travel Motive

X \_\_\_\_\_ X  
X \_\_\_\_\_ X

CHART X 2

⑤

## Exploring Tourism in Malaysia

Overview Demographics

Geographic trends Expense & Revenue

Travel Motive

X \_\_\_\_\_ X  
X \_\_\_\_\_ X

CHART X 2

②

## Exploring Tourism in Malaysia

Overview Demographics

Geographic trends Expense & Revenue

Travel Motive

X \_\_\_\_\_ X  
X \_\_\_\_\_ X

CHART X 2

④

**Focus** the focus of this layout is to simplify the exploration by dividing into manageable sections

In page ①

we see the summary of key tourism matrix

In page ②

we see some chart related texts and the following charts

Gender Donut chart & Horizontal gender bar chart showing global

TITLE: Dashboard View

AUTHOR: Naillya Ganesan

DATE: 29/09/24

SHEET: 3

TASK: Tourism in Malaysia

stacked bar chart

In page ⑤

we see the lollipop chart showing the analysis of the number of days stay in different years and the donut chart showing the purpose of visit

## OPERATION

Tab: users click on different tabs at the top to switch between the tourism dimension they want to explore.

Each tab offers a compartmentalized view of the specific topic

Dynamic content update: depending on the selected tab the dashboard shows relevant charts

## DISCUSSION

Advantages

- ✓ Simplified Navigation
- ✓ Focused Views
- ✓ Interactive Controls
- ✓ Modular Flexibility

Disadvantages

- ✓ Tab Overload: too many tabs can overwhelm users or make navigation cumbersome
- ✓ cannot do cross-tab comparison
- ✓ users may struggle to compare various sections data
- ✓ Learning Curve: new users might take time to understand how to navigate

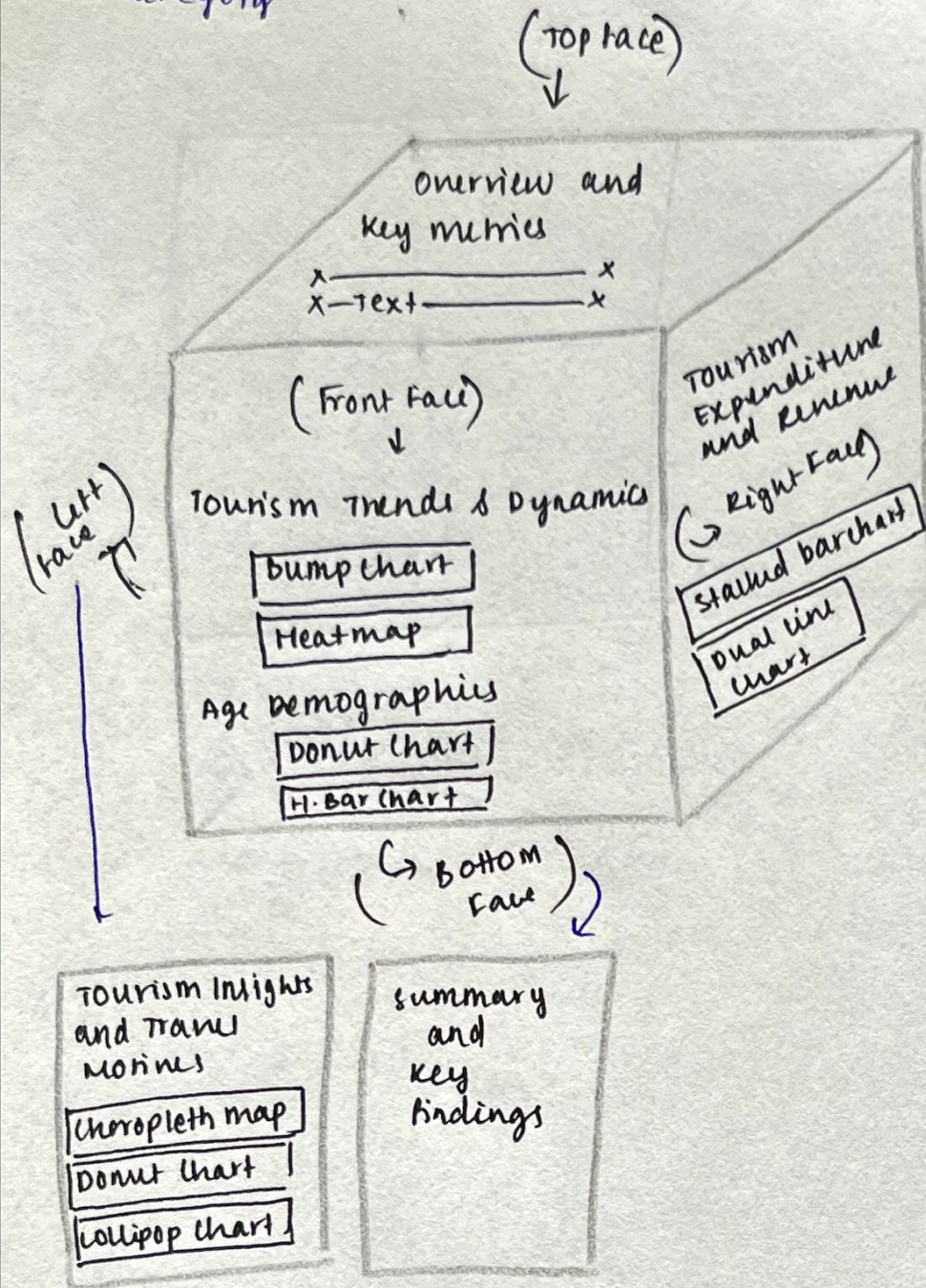
gender breakdown of arrivals,

In page ③ we see some chart related texts & the below charts  
Bump chart of top tourists, Heatmap of monthly trends, trends of states visitors  
In page ④ we see two charts dual line chart with the receipts & arrivals and the expense component



# LAYOUT - Modular interactive cube

This dashboard adopts a modular, cube-like design where each side of the cube represents a different data category.



## Focus

The cube is the medium of central focus. It starts with an 3D animation where users can rotate it with their mouse or touchscreen. Hovering any face gives a brief preview of the data and clicking zooms into that face for detailed exploration. The cube metaphor allows for both visual appeal and functional navigation.

TITLE: Dashboard view  
AUTHOR: Naillya Ganesan  
DATE: 29/09/2024  
SHEET: 4  
TASK: Tourism in Malaysia

## OPERATIONS

**3D rotation:** The main cube can be rotated and zoomed using touch gestures, mouse clicks or keyboard arrow. Each face of the cube represents distinct visualisation.

**Click to zoom:** Clicking on a cube face opens a detailed interactive view.

**Reset button:** A reset button at the bottom of each expanded view allows users to quickly reset.

## DISADVANTAGES

**Advantages**

- ✓ Highly interactive and unique
- ✓ Modular structure
- ✓ Clarified navigation

**Disadvantages**

- ✓ Learning curve
- ✓ Potential for performance issue
- ✓ Limited data view
- ✓ complex code outlines
- ✓ need to ensure cross browser compatibility



# LAYOUT:

The chosen visualization now aims to represent data related to user interactions and trends over time through engaging and informative visuals. It consists of multiple charts divided into sections displayed in a clean, organized manner focusing on user-friendly interactions and insights.

key metrics positioned at the top provide immediate insights of the key statistics

## Exploring Tourism in Malaysia

### Key Metrics as of June 2024

Total tourist arrived	Total revenue generated	Average stay duration
11,808,937	RM 45,422,000,000	2 days

all the below sections will exist as entire width sized

### Tourism Trends & Dynamics

Text x  
Bump chart  
top tourist sources by country  
Heat map  
Peak travel months trends

### Tourist Expenditure & Revenue

Text x  
Stacked bar chart  
Select year to highlight  
Dual line chart

### Travel Motivation and Stay Trends

Text x  
Donut chart  
Lollipop chart  
Text x

### Understanding Tourist Profile

Text x  
Donut chart  
Horizontal bar chart  
Gender control dropdown  
Text x

### Regional Tourism Insights

Choropleth map  
Text x

Choropleth map gives the state wise distribution of incoming tourist visitors

portions have been reduced here due to space constraint

Donut chart of arrivals gender dynamics and Horizontal bar chart of gender distribution of arrivals from diff countries

TITLE: Dashboard final  
AUTHOR: Naillya Ganesan  
DATE: 29/09/2024  
SHEET: 5  
TASK: Social Media Trends in Malaysia

## OPERATIONS:

Interactivity: The dropdowns, filters, tooltips allow users to manipulate data choice

Ease of Access: organized new to avoid overwhelming the user. Each section is modular and has a good visual flow.

## DESIGNED ELEMENTS:

Algorithms: The below are the used algorithms

- 1 Line chart
- 2 Bump chart
- 3 Heat map
- 4 Lollipop chart
- 5 Donut chart
- 6 Choropleth map
- 7 Bar chart

Design Details:

colour: soft but distinctive colours are chosen to avoid confusion.

shapes & lines: smooth curves of lines for modern look.

Fonts & Text use: Large bold fonts are used serif for title and non-serif (sans-serif) for chart desc.

Dependencies and Requirements  
✓ JavaScript libraries  
✓ Cross-Browser compatibility  
✓ Web hosting  
✓ Data processing

Estimated time to build  
3-4 weeks from collection of raw data mining and refining them till web page creation.

Stacked bar chart showing the expense component split and line chart gives the years arrivals and expenditure  
Donut chart gives the purpose of visit and lollipop chart the duration of stay

## FOCUS:

The visualization focuses on offering interactive insights into Malaysian tourism trends. It equally weighs and portrays all visual elements and sections presented