Concept Exploration - IDEAS
REAL ESTATE IN MALAYSIA
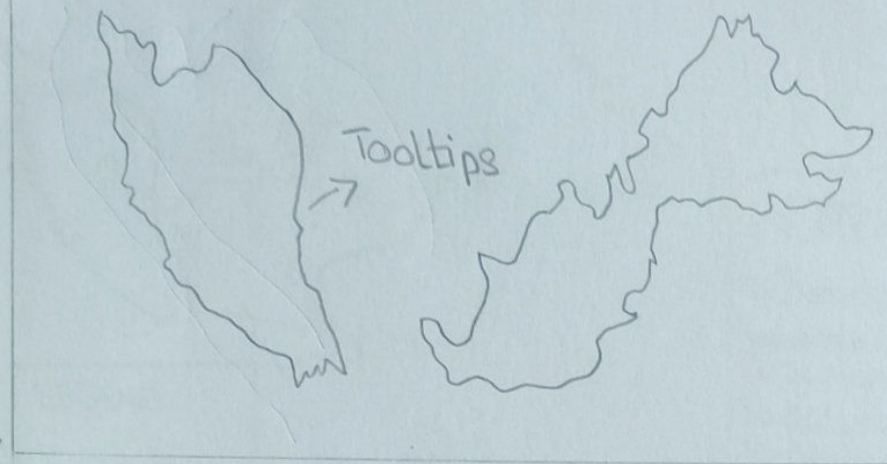
Author: Muhammad Mustafa Khan

Date: 16/9/2024

Sheet: 1

Task: Planning Visualisations
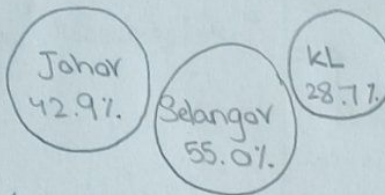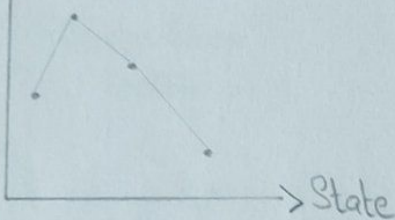
→ Choropleth Map for Property Transactions

Tooltips

↳ Interactive elements like filters for year, property type or region.

"House Price Index"

→ State

↳ Line Chart for HPI

"Housing Supply & Demand"

Johor 42.9%

Selangor 55.0%

kL 28.7%

↳ Bubble Chart

Rental Yields

↳ Bar Chart

Income to Property

↳ Scatter plot

Combine & Refine

↳ Bar Chart for rental prices & comparision
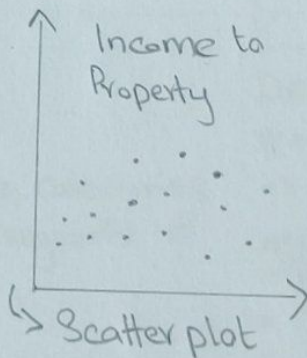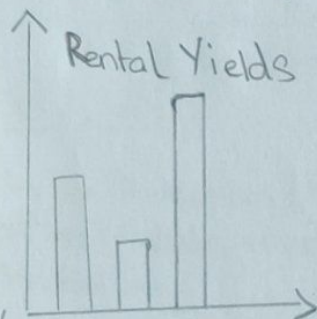
↳ Scatterplot for Affordability.

CATEGORIES

↳ Property Transactions
↳ House Price Index
↳ Rental Prices
↳ Housing Supply & Demand
↳ Affordability

· TARGET AUDIENCE

↳ Property Buyers in Malaysia.
↳ General Malaysian Population.

QUESTIONS

↳ Which forms of visualisation will fit in well with the available data.
↳ Colour Scheme?
↳ Which categories to prioritise.
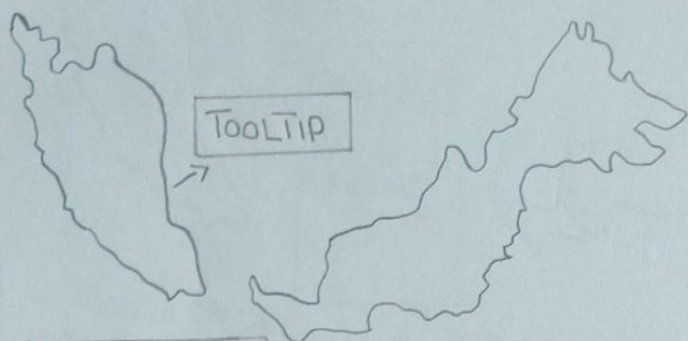↳ Bubble chart or any other chart?

LAYOUT

Real Estate in Malaysia

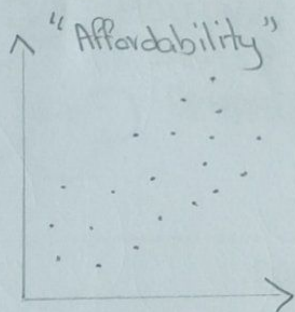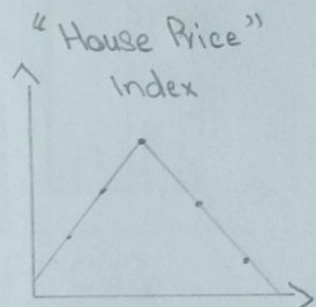Author: Muhammad Mustafa Khan

Date: 16/09/24

Sheet: 2

Task: Real Estate in Malaysia

Property Transactions

TOOLTIP

LEGEND

"House Price" Index

"Affordability"

OPERATION

→ Choropleth Map will show property Transactions in different regions.
↳ Tooltips for more details.
↳ data for each state.
↳ Colour distinction.

→ (42) (28) (55) "Housing Supply & Demand"
on click gives details & has filteration option.

→ → gives rental yields in the famous states

→ Line chart will have tooltips & annotations.
→ Scatter plot will filter according to income / property.

FOCUS

↳ To Understand & Compare categories of Real Estate in different regions of Malaysia.

MAP → Property Transactions.

△ → Line graph for House Price Index.

888 → Bubble chart for Supply & Demand.

ₙₗₗₙ → Bar Chart for Rental Yields.

⋰⋱ → Scatterplot for Affordability.

Discussions:

★ Multiple Visualisations:
↳ Cluttering in one page

★ Need to make the operations efficient & relevant.

★ Does the Information cover the topic?

→ Advantages:
↳ Variety of visualisations provide multiple factors to compare.

→ Disadvantage:
↳ cluttering causes confusion & misunderstanding.

LAYOUT

Author: Muhammad Mustafa Khan
Date: 17/09/2024
Sheet: 3
Task: Narrative Visualisation for Audience

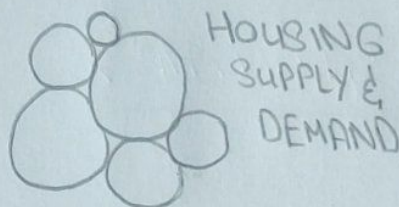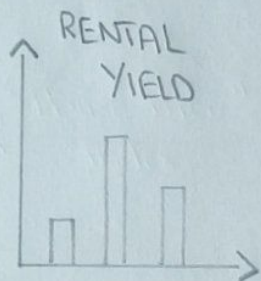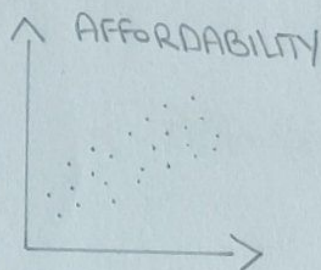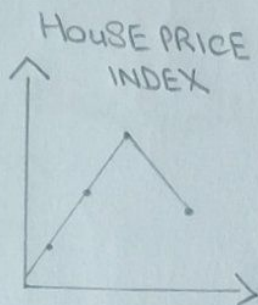→ Title
Real Estate in MALAYSIA

TEXT BOX → For Labelling & understanding data

Property Transactions

TOOLTIP

LEGEND

HOUSE PRICE INDEX

AFFORDABILITY

RENTAL YIELD

HOUSING SUPPLY & DEMAND

OPERATIONS

→ On Click highlights the state & gives details
↳ Filters states according to transaction range.
↳ Legend for easy reading.

→ Line graph on click displays description & filters.

→ Scatter plot will filter according to Income Range.

→ Bar Chart highlights rental yields on click.

→ Bubble Chart can filter according to range.

FOCUS

↳ On providing accurate comparision of real estate categories in different Malaysian states.

↳ Bar Chart
  ↳ X axis : Property Prices in State
  ↳ Y axis : Income.

↳ Line Graph
  ↳ X axis : House Price Index
  ↳ Y axis : States

DISCUSSION

· Advantage:
↳ All Categories are clearly highlighted creating a balanced structure & clarity.
↳ Eye catching & Interesting layout.
↳ User Interaction promoted.

· Disadvantage:
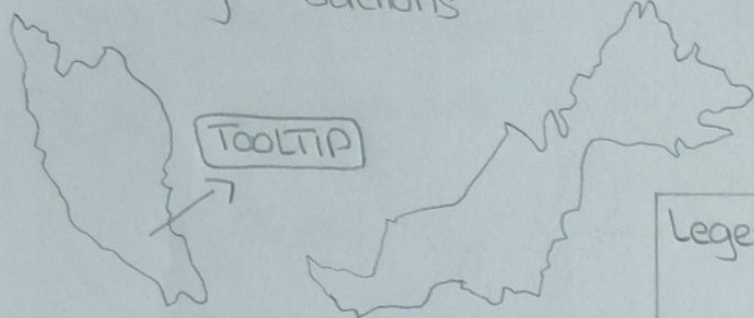↳ Too many visualisations cluttering the dashboard.
↳ Spacing needs to be sorted.
↳ Filtering depends on data.

SHEET #4

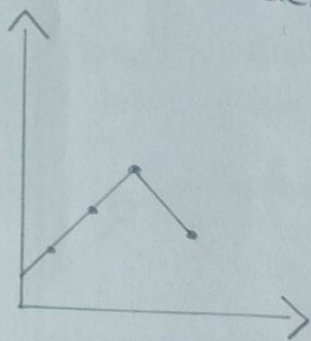{Background Image} → If needed
→ ChartJunk

Author: Muhammad Mustafa Khan
Date: 17/09/2024
TASK: Designing a scrollable page telling a narrative.

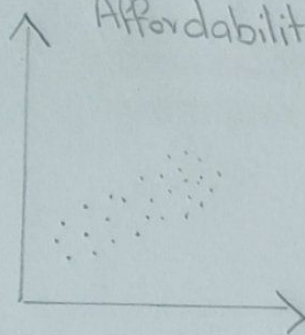## REAL ESTATE IN MALAYSIA
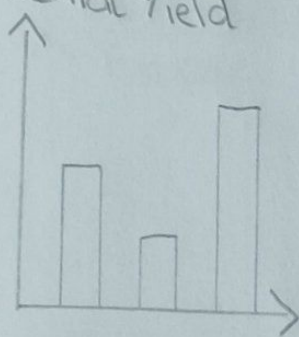
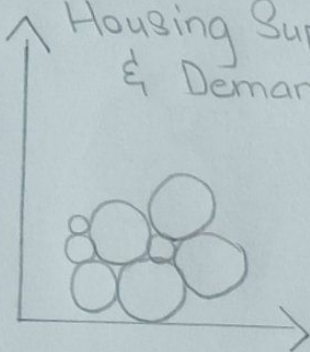Property Transactions

TOOLTIP

Legend

House Price Index

Affordability

Rental Yield

Housing Supply & Demand

OPERATIONS

⤷ On Click filters the transaction according to states

⤷ Annotations provide details of each state.

⤷ Creative Annotations for each of the charts and graphs.

⤷ Bubble chart uses different colours and sizes.

⤷ Bar chart:

X-axis: Property Prices
Y-axis: Income

FOCUS

→ MAP: As the most prominent visualisation, it sets the theme.

→ Other charts provide details

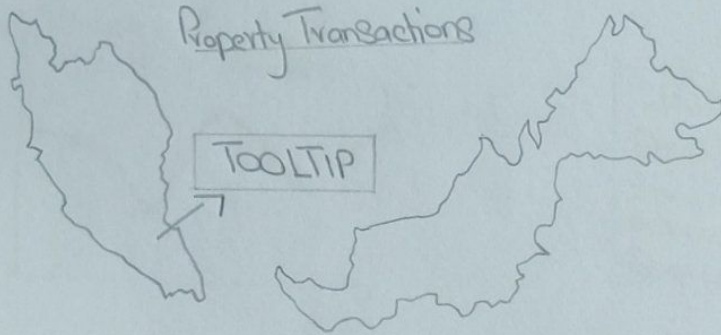→ Audience: Real estate investors & Policy makers.

Advantages:
⤷ More clear, attractive & readable layout.
⤷ easy to follow annotations.
⤷ Simple Structure.

Disadvantages:
⤷ Bubble chart could be confusing.
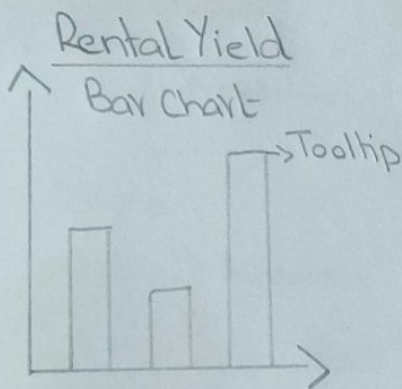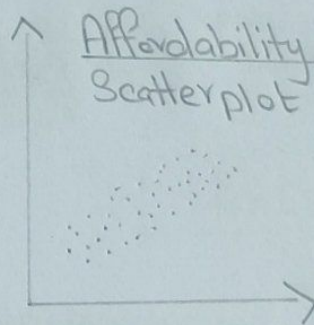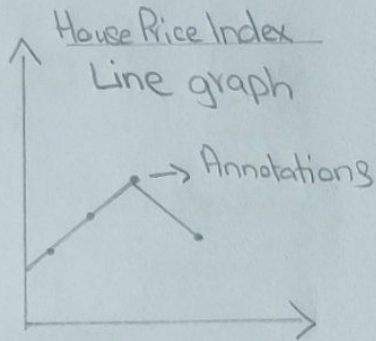⤷ Map clearity.

Real Estate in Malaysia

Name: Muhammad Mustafa Khan

Date: 17/09/2024

Sheet: 5

Task: Final Implimentation Design

Introduction/ Brief description about Real Estate in Malaysia.

Property Transactions

TOOLTIP

LEGEND

House Price Index
Line graph
→ Annotations

Affordability
Scatter plot

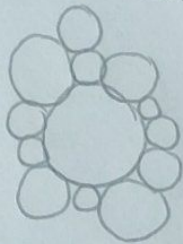Rental Yield
Bar Chart
→ Tooltip

Housing Supply & Demand
Bubble Chart

OPERATIONS

⤷ Legend for easier readability.

⤷ Map filters the transactions according to states.

⤷ Tooltip for extra details and clarity.

⤷ Line graph has creative annotations & filteration.

⤷ Different colours and sizes used for bubble chart.

⤷ Bar chart on click highlights the state and provides details.

⤷ Bubble chart uses different colours & shapes.

FOCUS:

⤷ Equal Importance to each chart.

⤷ Main focus on highlighting the real estate categories.

⤷ Annotations for ease of understanding.

⤷ Simpler Layout.

Details:

⤷ To be implimented using vega-lite library to create maps

⤷ Each element needs to be worked upon seperately.

⤷ Simpler text & larger visualisations for clarity & understanding.