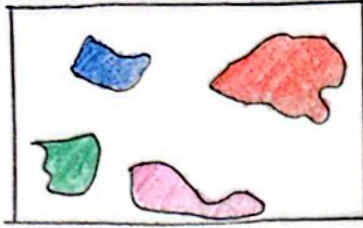
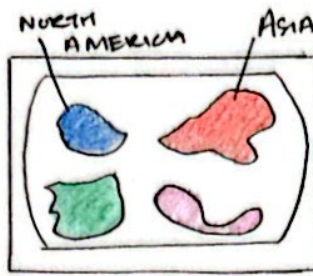


IDEAS

① CHLOROPLETH MAP



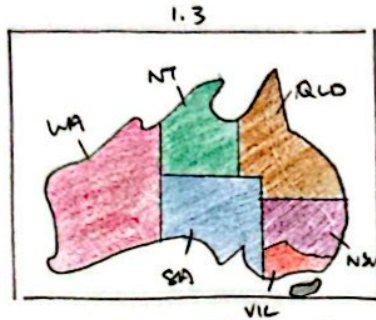
1.1



1.2

- VIC ■ NT
- NSW ■ WA
- QLD ■ SA

FACTORS: GLOBAL
OR
AUSTRALIA



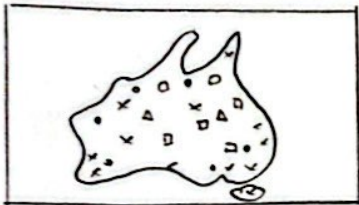
1.3



- STATES OF AUSTRALIA
- FREQUENCY OF DISASTER

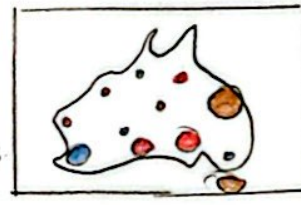
- SATURATION INDICATES
THE LEVEL OF HARM CAUSED
BY DISASTER

② SCATTER PLOT DOT MAPS



E.G: X - FLOOD
□ - WILDFIRE

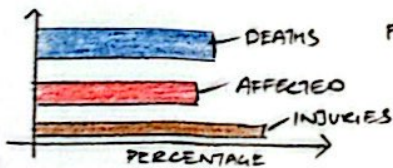
- DISASTER TYPES
- AMOUNT OF CASUALTIES



SIZE: 0: 1million
○: 5million
○: 10million

③ CIRCULAR BIN MAPS

④ BAR PLOTS



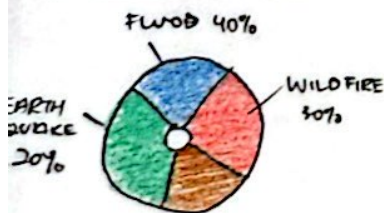
* AMOUNT OF INJURIES,
DEATHS AND CASUALTIES

⑤ RADIAL PLOTS



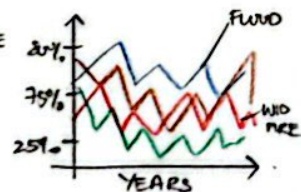
* AMOUNT AND
PERCENTAGE

⑥ DONUT CHART



* OVERALL
PERCENTAGE
OF MAJOR
DISASTER

⑦ LINE CHART



* FREQUENCY
OF EACH
DISASTER OVER
THE YEARS

AUTHOR: BRANDON LAM

DATE: 16/1/2024

SHEET: 1

TITLE: PLANNING VISUALISATIONS

FILTERS:

1.1 CHLOROPLETH MAP:

- IT IS NOT AESTHETICALLY
APPEALING BECAUSE THERE
COULD BE TOO MANY COLOUR
USED. SOME AREA COULD
EITHER BE TOO LARGE
OR TOO SMALL TO SEE.

4. BAR PLOTS:

- IT MAY NOT BE FEASIBLE,
BECAUSE IT WOULD BE TOO
DIFFICULT TO IDENTIFY EACH
DISASTER TYPES THROUGH
BAR PLOTS.

COMBINE & REFINE:

④ BAR PLOTS CAN BE OPTIMIZED BY CATEGORIZING
SIMILAR DISASTER TYPE TOGETHER.

① + ② THESE TWO PLOTS CAN BE COMBINE
TOGETHER TO MAKE IT MORE AESTHETICALLY
VISIBLE.

QUESTION

- IS THERE A WAY
TO PRESENT EACH
DISASTER IN THE FORM
OF MAP FORMAT?

- IS THERE A WAY
THAT USER COULD
CHOOSE THE YEAR
RANGE?

CATEGORISE.

CATEGORICAL

- DISASTER TYPES
- AUSTRALIA STATES.
- TYPES OF CASUALTIES.

QUANTITATIVE:

- NO. OF CASUALTIES.
- YEARS.

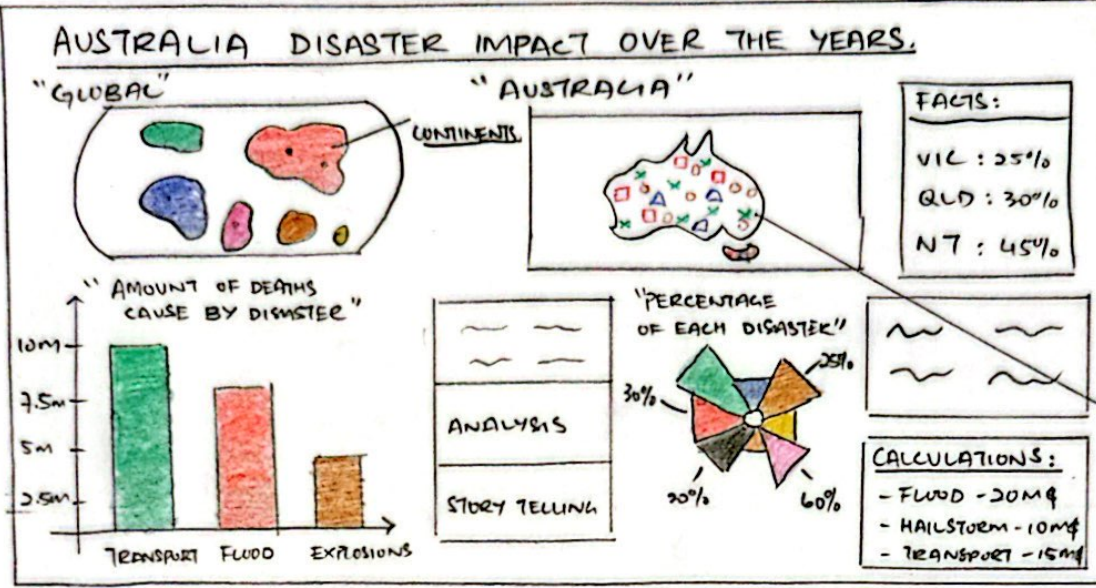
LAYOUT

AUTHOR:
BRANDON LAM

DATE: 16/9/2024

SHEET: 2

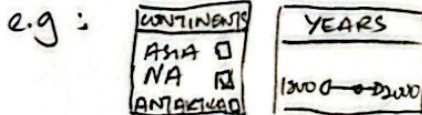
TASK: PLANNING
VISUALISATION.



OPERATIONS.

* FILTERING OPTIONS:

- ALLOW USERS TO USE FILTERING TOOLS SUCH AS CONTINENTS AND YEARS.

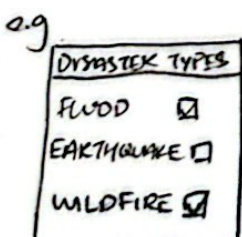


- * ANNOTATIONS USING SPECIFIC SHAPE MARK TYPE AS A POINT. "O, X, □"

e.g:

- △ : FLOOD
- X : WILDFIRE
- : EARTHQUAKE

- * USER ARE ALLOWED TO FILTER OUT DISASTERS THAT ARE IRRELEVANT.



FOCUS:

① CHOROPLETH MAP:

- * EACH COLOUR SHOWING DIFFERENT CONTINENTS.
- * USING DOT POINTS TO INDICATE MAJOR DISASTER EVENTS
- * ENABLE ZOOM IN AND ZOOM OUT FEATURES FOR USER TO IDENTIFY THE EXACT LOCATION OF PARTICULAR DISASTER EVENTS.

② BAR PLOTS

- * X-AXIS: DISASTER TYPES
- * Y-AXIS: NUMBER OF CASUALTIES.
- * DIFFERENCES IN COLOUR INDICATES EACH DISASTER TYPE CATEGORY.

③ RADIAL PLOTS

- * INDICATING THE OCCURENCE OF EACH DISASTER TYPES USING PERCENTAGE.

DISCUSSION:

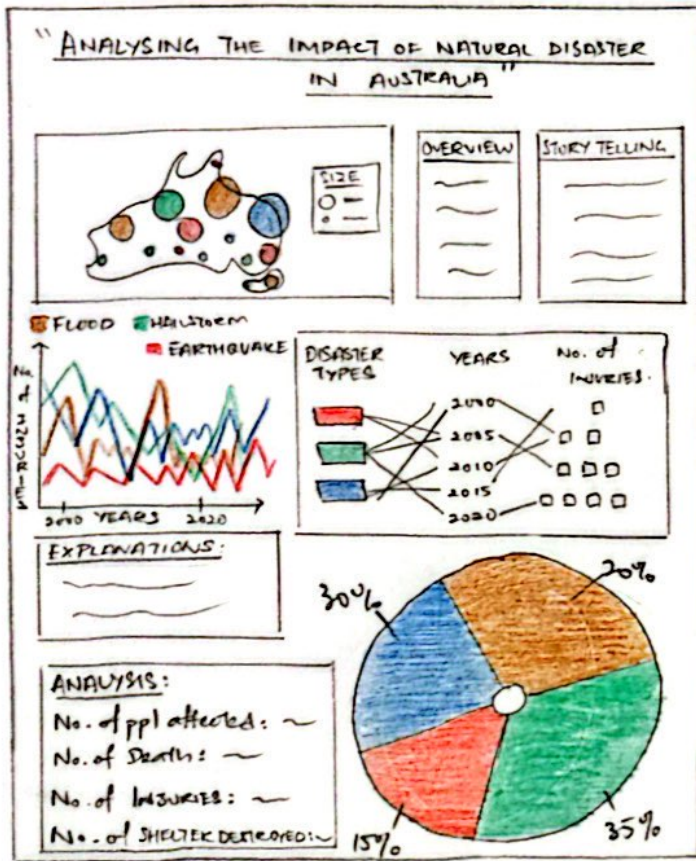
ADVANTAGE:

- * THE OVERALL PRESENTATION IS CLEAR & CONCISE.
- * ALLOWS USERS TO INTERACT & FILTER

DISADVANTAGE:

- * THERE COULD BE TOO MANY DISASTER FACTOR IN BAR PLOTS.
- * RADIAL PLOTS MAY BE TOO DIFFICULT TO SPOT THE DIFFERENCES.

LAYOUT



OPERATIONS:

① By HOVERING OVER PARTICULAR CIRCLE IN THE AUSTRALIAN MAP, IT SHOWS THE NUMBER OF PEOPLE AFFECTED BY THAT DISASTER EVENT.

② By USING "■" TO A SPECIFIC NUMBER OF PEOPLE. THROUGH THE SANKEY DIAGRAM USER ARE ABLE TO SPOT THE RELATIONSHIP OF DISASTER TYPES, YEARS & NO. of INJURIES.

e.g: ■ : 1 million.

③ A TOOLTIP WHICH ALLOW USERS TO FILTER DISASTER TYPE.

FOCUS:

① CHLOROPLETH + BUBBLE MAP

- * EACH COLOUR REPRESENTING DISASTER EVENT
- * EACH CIRCLE SIZE INDICATE NUMBER OF CASUALTIES.

② LINE CHART.

- * FREQUENCY OF EACH DISASTER TYPE.
- * NUMBER OF INJURIES CAUSED THROUGH THE YEARS.

③ SANKEY TIMELINE CHART.

- * REPRESENTING EACH BOX AS NUMBER OF PEOPLE AFFECTED IN RELATION TO YEARS AND TYPES OF DISASTER.

④ DONUT CHART.

- * REPRESENTING NUMBER OF PEOPLE AFFECTED.

DISCUSSION:

ADVANTAGE:

- * IT IS WELL STRUCTURED CONCISE, AND AESTHETICALLY APPEALING.
- * CONSIST OF USER INTERACTIONS. (TOOLTIPS & FILTERING)
- * LEGEND INCLUDED TO IMPROVE INTERPRETABILITY.

DISADVANTAGE:

- * THE BUBBLE MAY OVERLAP WHICH CAUSES SOME MINOR EVENT TO DISAPPEAR.
- * MANY TYPES OF DISASTER MAY CAUSE THE LINE CHART TO BE OVERCOMPLEX.
- * SANKEY CHART COULD BE DIFFICULT TO BUILD.

AUTHOR: BRANDON LAM

DATE: 16/1/2024

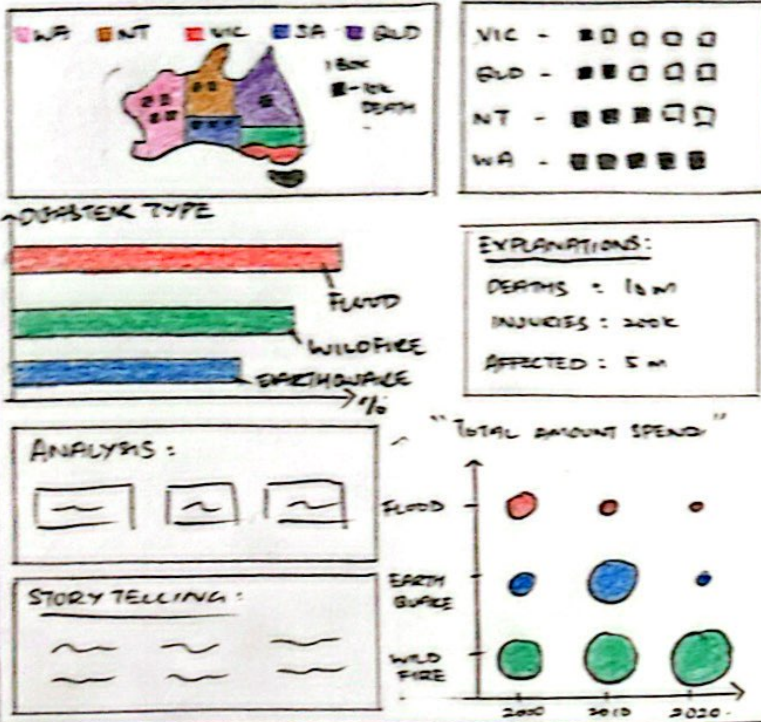
SHEET: 5

TASK: PLANNING VISUALIZATION

LAYOUT

Australia's Natural Disasters:

TRACING THE DEVASTATION
THROUGH THE YEARS



OPERATIONS:

* USE TO TOOL TIP TO REPRESENT BOXES IN EACH STATE.

e.g: ONE BOX "■" EQUAL TO 10,000 INJURIES.

* USING COLOURS TO DEFINE DIFFERENT STATES AND DISASTER TYPE.

* USING FILTERING OPTION TO EXCLUDE OR INCLUDE DISASTER TYPES.



* ADDING TEXTBOXES FOR ANALYSIS AND EXPLANATIONS.

FOCUS:

① CHLOROPLETH + QUANTITY BOXES CHART:

- * BOXES THAT REPRESENT CONSISTENT NUMBER OF DEATH
- * COLOUR THAT DEFINES EACH STATES.

② BAR CHART

- * X-AXIS : PERCENTAGE OF EACH DISASTER TYPE.
- * Y-AXIS : DISASTER TYPES.

③ BUBBLE CHART.

- * AMOUNT OF MONEY SPEND BY GOVERNMENT TO REBUILD THE INCIDENT CAUSED BY DISASTER.

DISCUSSION:

AUTHOR: BRANDON LAM

DATE: 16/9/2024.

SHEET: 4

TASK: PLANNING, VISUALIZATION

ADVANTAGE:

- * THE GRAPH PROVIDES A CLEAR AND CONCISE PRESENTATION BY HAVING GOOD USE OF TEXT BOXES, SPACING AND SIZE OF CHARTS.

- * LEGEND ARE USED TO INDICATE EACH STATES AND REPRESENTATION OF NUMBER OF DEATHS. TO PROVIDE AN EASIER UNDERSTANDING TO THE USER.

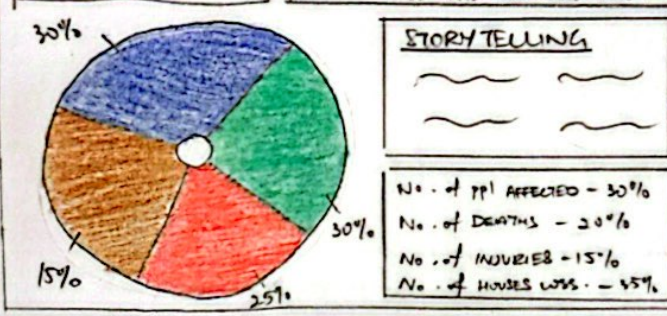
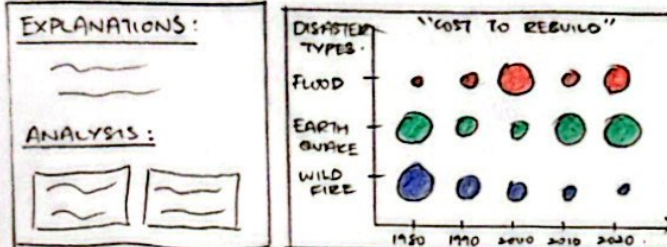
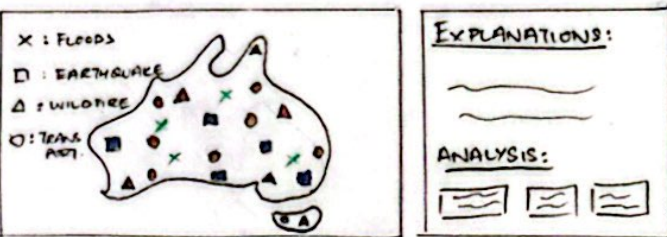
DISADVANTAGE:

- * REPETITIVE CONCEPT OF USING LEGEND.
- * IS THERE A BETTER FORM OF CHART TO REPRESENT THESE INFORMATION.
- * LANDSCAPE COULD BE BETTER.

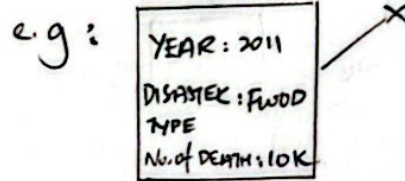
LAYOUT

OPERATIONS.

"THE EVOLUTION OF NATURAL DISASTER IN AUSTRALIA"



* BY HOVERING TO EACH POINTS,
 IT SHOWS THE DETAILS FOR PARTICULAR
 DISASTER EVENTS.



* USING BUBBLE CHARTS TO
 INDICATE THE AMOUNT SPEND AND
 ADAPTING DIFFERENT SIZE TO
 PROVIDE BETTER UNDERSTANDING.

* TIPS:

- USE FOR ALL GRAPHS IN TERMS OF COLOURS.
- ASSIGN SPECIFIC SIZE TO PARTICULAR VALUES.

FOCUS:

DETAILS:

AUTHOR: BRANDON LAM
 DATE: 16/9/2024.
 SHEET: 5
 TASK: PLANNING VISUAL

* DEPENDENCIES:

① USING VEGALITE, JAVA, CSS,
 R-STUDIO TO CREATE PLOTS, GRAPHS,
 AND CLEANING DATA.

* ESTIMATED TIME ② 3-4 DAY TO
 LEARN HOW TO
 EFFORT. CODE AND UTILISED
 DATA.

③ 2 DAYS TO DESIGN AND TRY
 OUT DIFFERENT IDIOMS.

④ 3 DAYS FOR FINAL DESIGN.

⑤ SPECIFIC REQUIREMENTS:

- MAKING SURE ITS WELL PRESENTED
- USING 1 DAY TO FINALISED!

① NO MAIN CHART ALL GRAPHS
 & CHARTS ARE EQUALLY IMPORTANT.

② MAIN FOCUS WOULD BE INCLUDING
 DIFFERENT IDIOMS, AND CREATING
 A MAP CHART PROPERLY.

③ PROVIDE LEGENDS TO IMPROVE
 READABILITY AND UNDERSTANDING.

④ MAKING SURE COLOURS ARE
 USE IN DIFFERENT VARIETY.

⑤ PORTRAIT IS BETTER THAN
 LANDSCAPE WHEN HAVING MULTIPLE
 IDIOMS & STORYTELLING.

⑥ FOCUS ON TEXTBOXES & SPACING.