1. IDEAS

venn — for truck, bus involvement

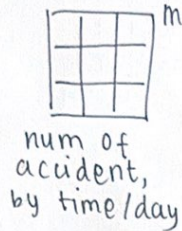**heatmap/tree map** — num of accident, by time/day

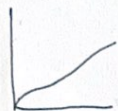**bar chart** — dist of accident by state or crash type

stacked bar — crash types by age or gender

pie chart — accidents involve bus/truck

line — trend over time
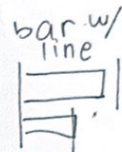
violin — dist of age by road user

box plot — compare speed limit

density — frequency by day (time)

bar w/ line

choropleth — dist of accident based on state
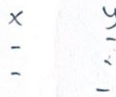
sankey —
x y
- -
- :
- -
flow of crash by road user vs crash type

radar chart — compare attributes vs single category

sunburst — day and time

bubble chart — num of accident → size based on age/location
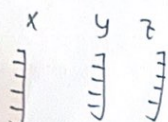
parallel coordinate
x y z
relationships between attributes
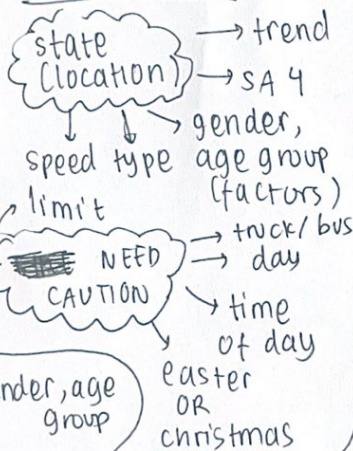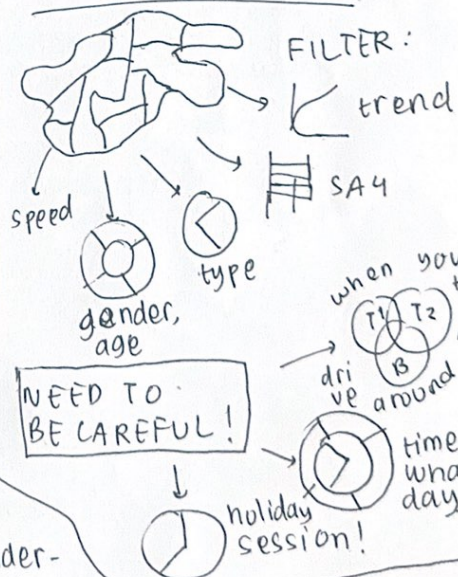
2. FILTER

by location

trend
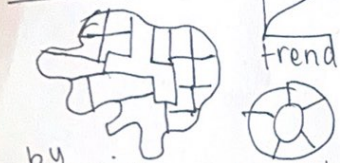
day & time, gender, age group

for type and another one for easter/christmas, ~~also for gender, age group~~

for SA4

for bus & truck involvement

3. CATEGORIZE

state (location) → trend
→ SA4
→ gender, age group (factors)
speed type
limit
NEED CAUTION → truck/bus
→ day
→ time of day
easter OR christmas

4. COMBINE & REFINE

FILTER:
trend
SA4
speed
type
gender, age

NEED TO BE CAREFUL!

when you → truck/bus
drive around
T1 T2
B
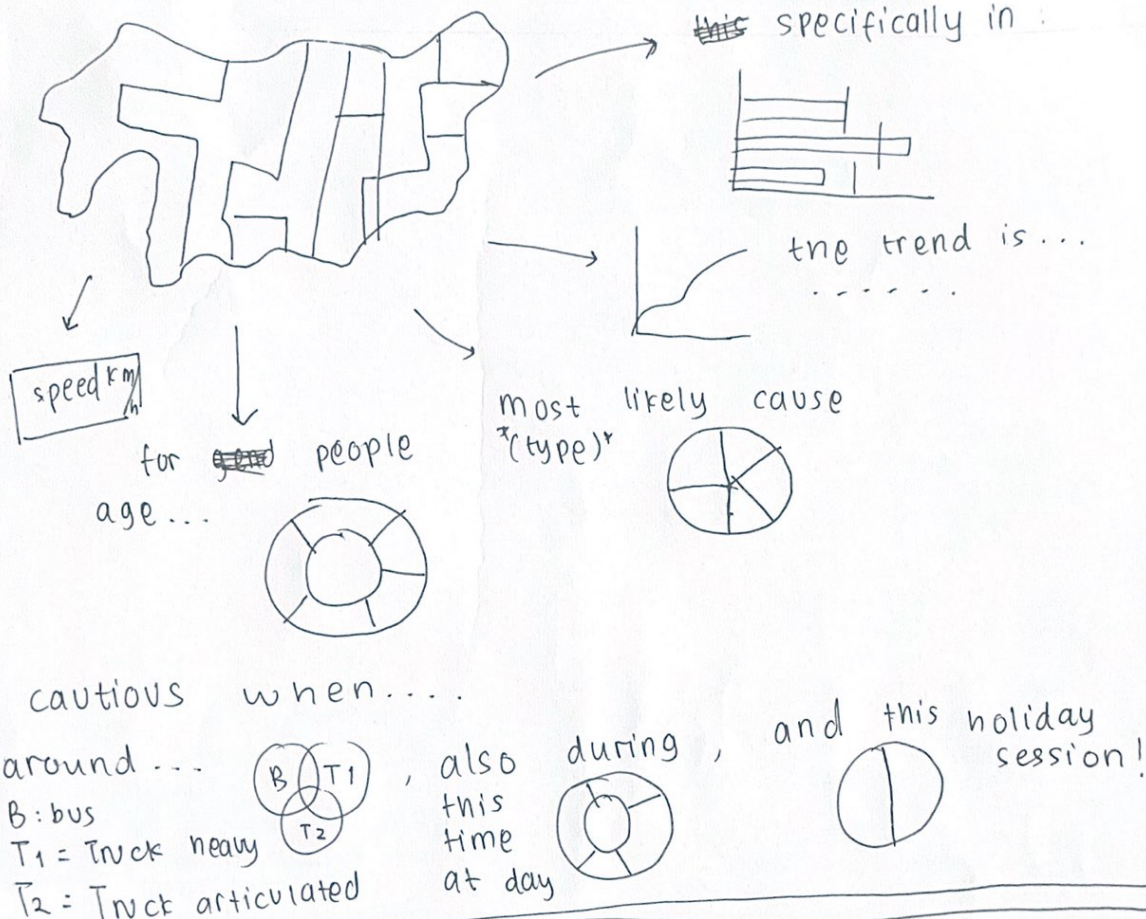time, what day
holiday session!

5. QUESTION

- will the user understand the factor that likely to cause accident in their area?

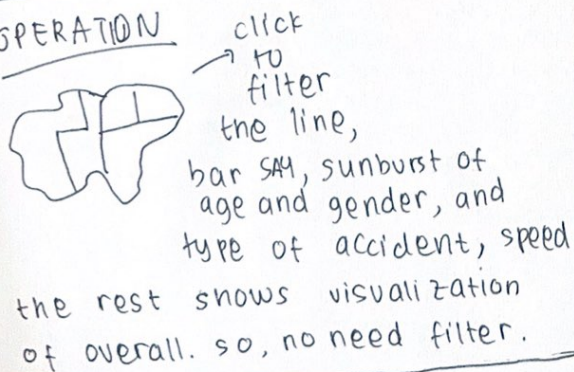- is there too many graphs? might cause confusion but also have statistic proof!

LAYOUT

ROAD CRASH in AUSTRALIA

this specifically in :

the trend is...
......

speed km/h

for ~~good~~ people

age...

most likely cause
(type)

cautious when....

around...
B : bus
T₁ = Truck heavy
T₂ = Truck articulated

B / T1 / T2

, also
this
time
at day

during , and this holiday
session!

OPERATION

click
to
filter
the line,
bar say, sunburst of
age and gender, and
type of accident, speed.
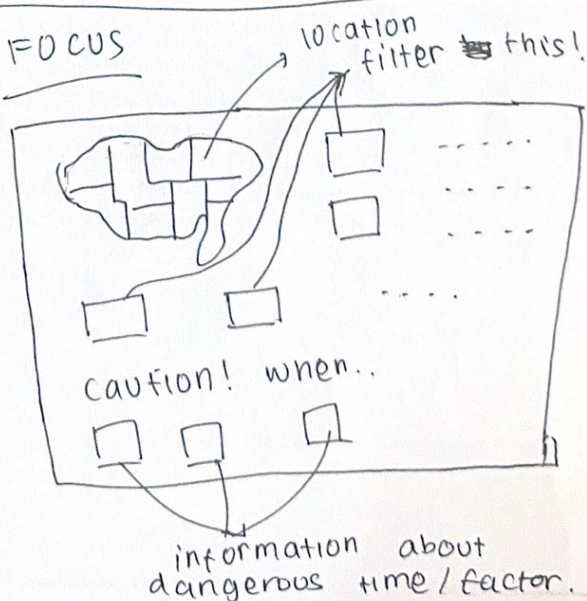the rest shows visualization
of overall. so, no need filter.

DISCUSSION.

the information flows are clear,
however, it might not be nice to
see when the diagram inside
the text area!

FOCUS

location
filter this!

caution! when..

information about
dangerous time / factor.

LAYOUT

ROAD CRASH IN AUSTRALIA

→ be careful at this speed!

the trend in [xxx] change

this is because ...
... ...
... ...

the accident most likely happen in

because ...
. . . .
. . . . .

x x x x - - - - - - - - .

. . . .
. . . . .

CAREFUL   when??

a.   . . . .
      . . . .

b.   . . . . .
      . . . . .

c.   . . . .
      . . . .

OPERATION

click to filter

[xx]

when click ⊕, highlight the info!

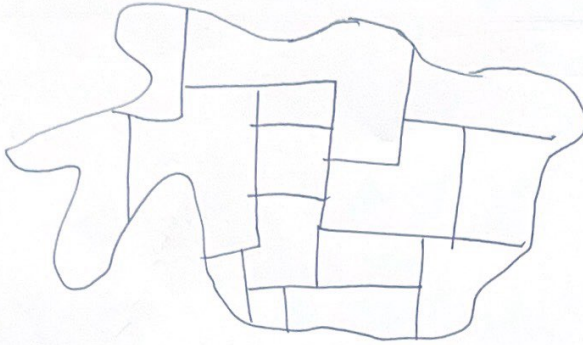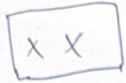## FOCUS

→ first section abt the location

CAREFUL:

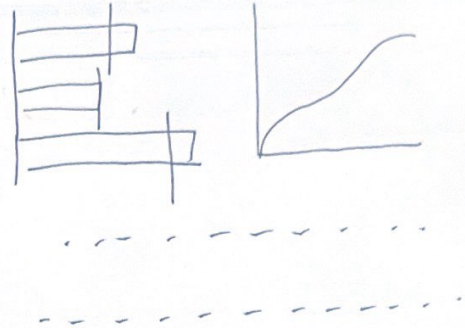→ second section abt warnin readers!

DISCUSSION.

more neat and structured, horizontally. It easy to find information. However, it needs more space, the user need to scroll.
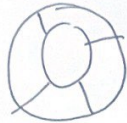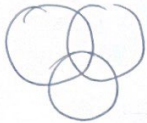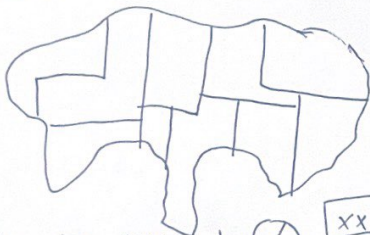
LAYOUT

ROAD CRASH IN AUSTRALIA

x x   x x   x x   xx
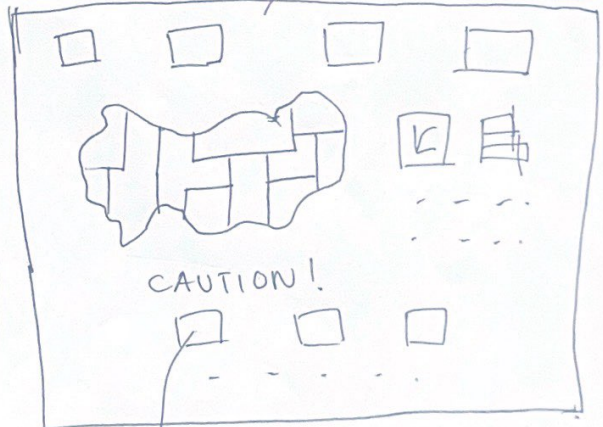
CAUTION!

OPERATION

click to filter!

when click the ⊕, highlight!

the 4 top text boxes also change
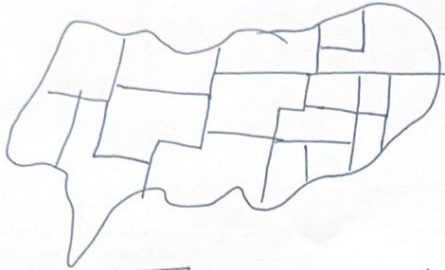when choose location.

FOCUS

→ first section!

CAUTION!

second section!

DICUSSION.

more ~~the~~ intersting, as we can access everything in one glance,
the disadvantage ~~btgh~~ is due to the ~~htghli~~ highlighted
text that make poor data toink ratio.

LAYOUT.

ROAD CRASH IN
AUSTRALIA

In . [X X X], the- road
crash are shown : .

most likely to
happen..., because
. . . .

the trend
also...
....

where [...%] are type of
. . . and [...%]

HOW TO BE CAUTIOUS!

> when you around
the ...

> when (holiday)
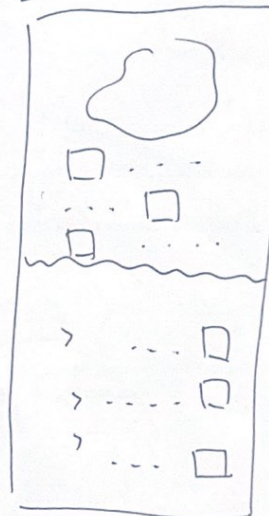season, as . . .

> and during
weekend, night-
Because . . .

OPERATION

when click the map,
the [xxx], and graphs
before ~ how to be
more cautious' can
change based on the
location.

FOCUS .

→ first section
abt everything
that can be
filtered by
location.

second section
→ information
about pre
caution w/
the visualization
and highlight
the key measure.

DETAIL.

- database using csv.
- use vegalite, css, java,
  html.
- html for ~~overall~~ key
  structure.
- java, css for design.
- vegalite for graph.
- vegalite > html > java, css
  > put vegalite inside!
- 2 weeks? or 3 to complete.