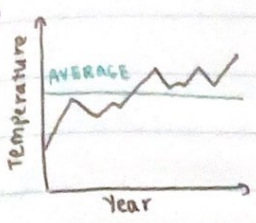
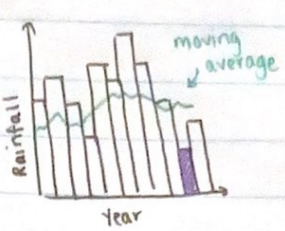
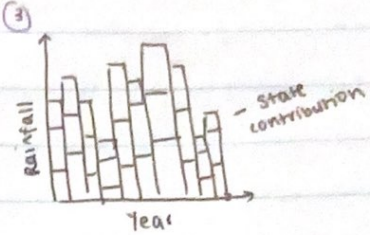
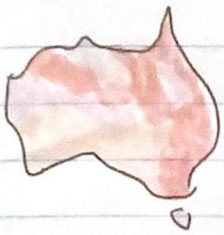
IDEAS

① 

② 

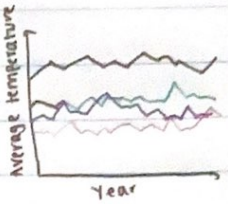
③ 

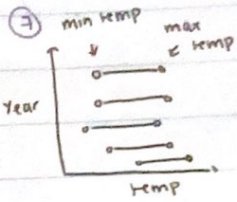
④ 

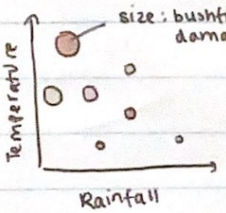
temperature 2019

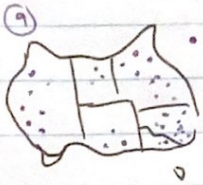
⑤

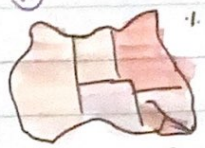
rainfall 2019

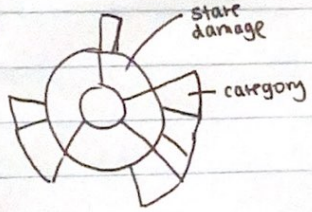
⑥ 

⑦ 

⑧ 

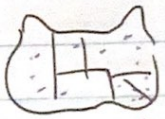
⑨ 

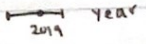
⑩ 

⑪ 

⑫

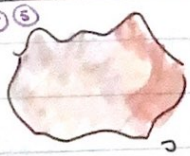
COMBINE & REFINE



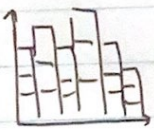


vs multiple views

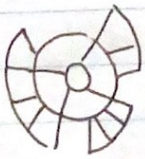
FILTER

④ ⑤ 

- doesn't seem feasible
- technically challenging
- no appropriate data available

③ 

- interactive filter might work better instead

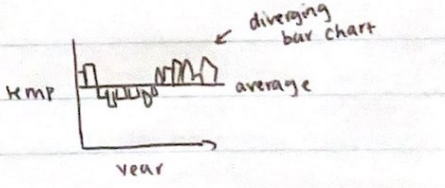
⑪ 

- technically challenging

CATEGORISE

temperature
① , ⑥ , ⑦
↓
rainfall
②
↓
fire
⑨
↓
impact
⑩ , ⑫

> ⑧

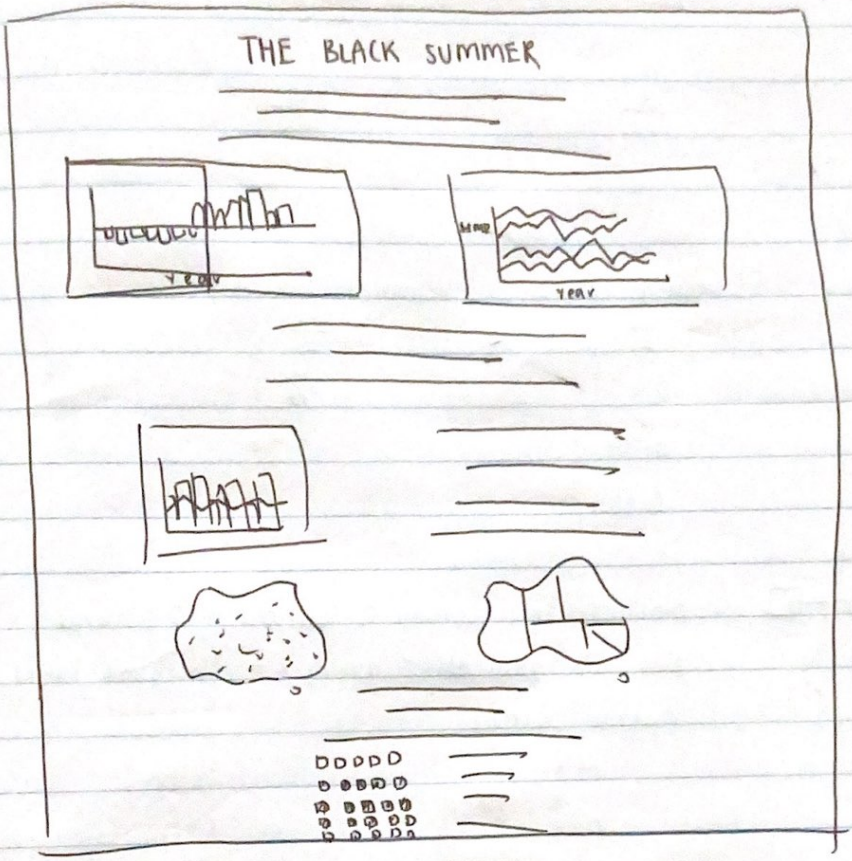


QUESTIONS

- Will the bubble plot showing correlation be redundant information?
- will bubble plot and dot density graph look good or will some area be too sparse / not enough points for bubble plot?

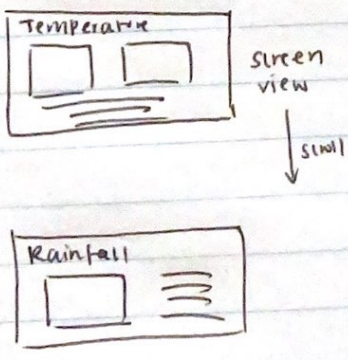
Choose ⑥ over ⑦ because too many temperature charts
↳ ⑥ provides better overview as ⑦ would have to have state filter (look at one state at a time)

LAYOUT



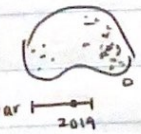
FOCUS

- no main focus, layout is focused on story-telling with vertical scroll
- keep ~~one~~ each section (eg: 'temperature', 'rainfall') cleanly partitioned such that only one section is visible at a time



OPERATION

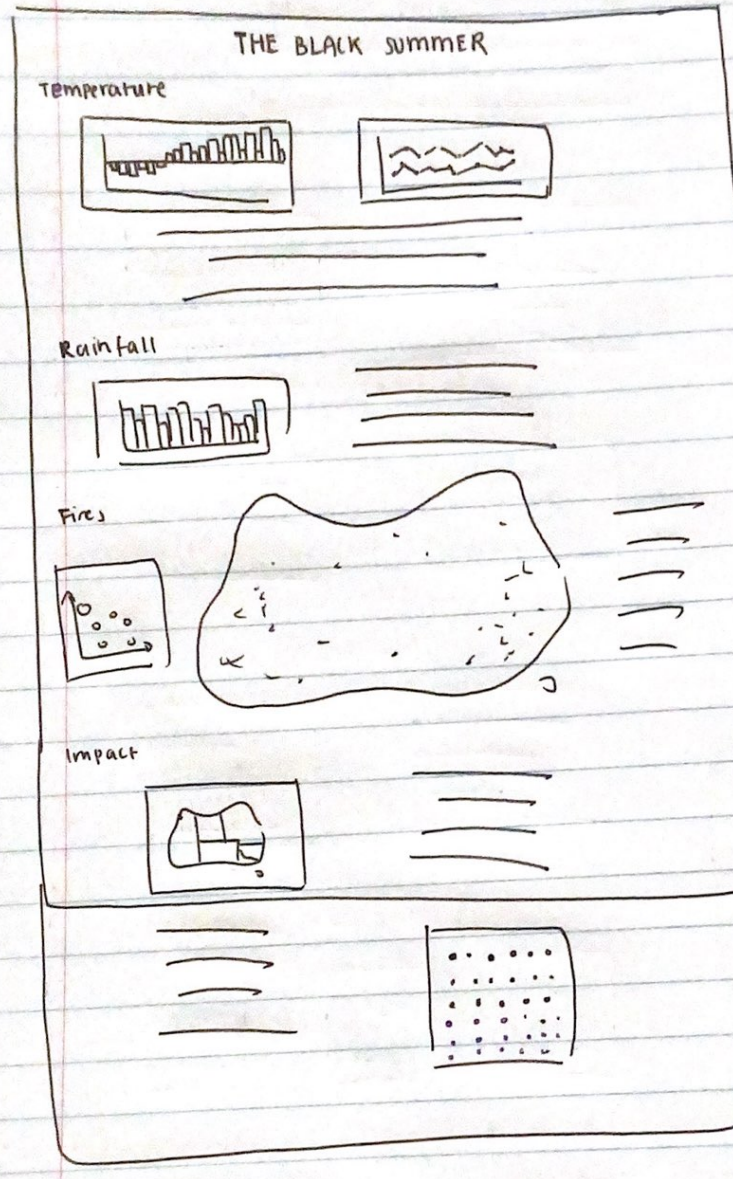
- a filter to highlight specific states on the ~~multiline~~ multi-series line chart
  - ↳ state: VIC, NSW, ...
- tooltips when hovering over marks
- year slider for dot density map



DISCUSSION

- layout is effective for story-telling
- operations/interactions are intuitive, easy to use
- balanced partition of charts: 2, 1, 2, 1
- having 2 maps about different things next to each other might be make the story disjointed
- more charts for 'impact' section?
- no main focus

LAYOUT

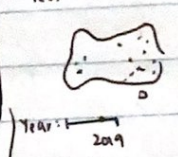


FOCUS

- keeping main storytelling layout but emphasing the dot density map (largest chart) as main focus
- factors leading up (temperature, rainfall) and aftermath (impact) are subsections to main focus — the 2019 bushfires

OPERATIONS

- multi-series line chart: click on legend to highight a state
  - ↳ keeps other state lines still visible but less opaque
- year slider for fire graph

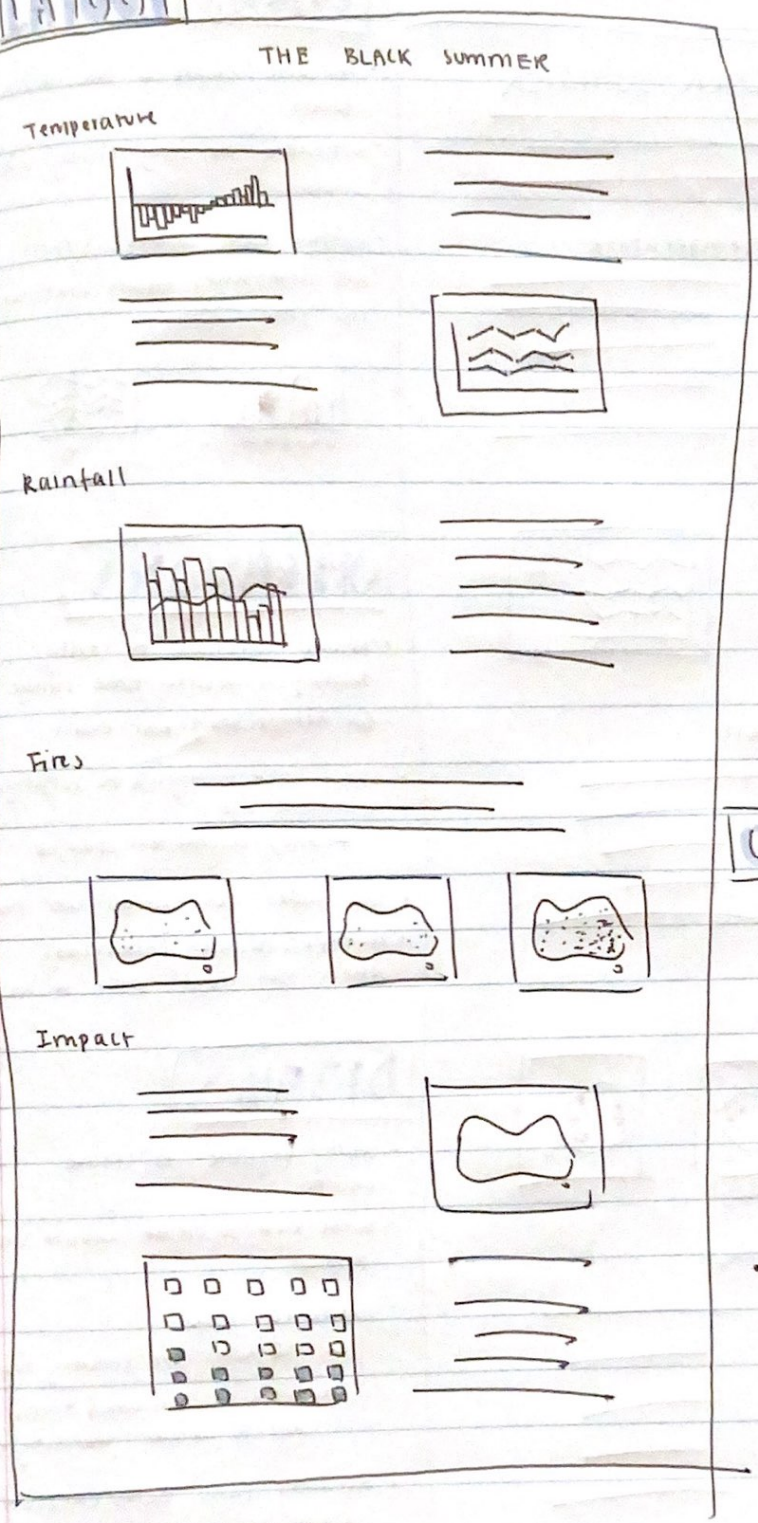


- Range sliders for temperature and rainfall bar charts to zoom in on a time-frame

DISCUSSION

- have a main focus chart now but not sure it works with scrolling storytelling — would work better if whole visualisation was viewable on one screen without scrolling
- sections are balanced ~~with~~ between factors leading up to bushfires and impact (adding choropleth to impact)
  - ↳ but the fire section might be too cluttered ~~[illegible]~~
- maybe the two temperature charts shouldn't be side by side as information not directly comparable

LAYOUT



FOCUS

- no main focus
- emphasising story-telling; all charts are equally important
- In the time-series charts eg; temperature and rainfall, make sure to highlight the year 2019
  - ↳ make bars different colour to highlight
  - ↳ make circles on line chart brighter colour for 2019
- small-multiples for fires
  - ↳ highlight 2019 with different background colour?

OPERATIONS

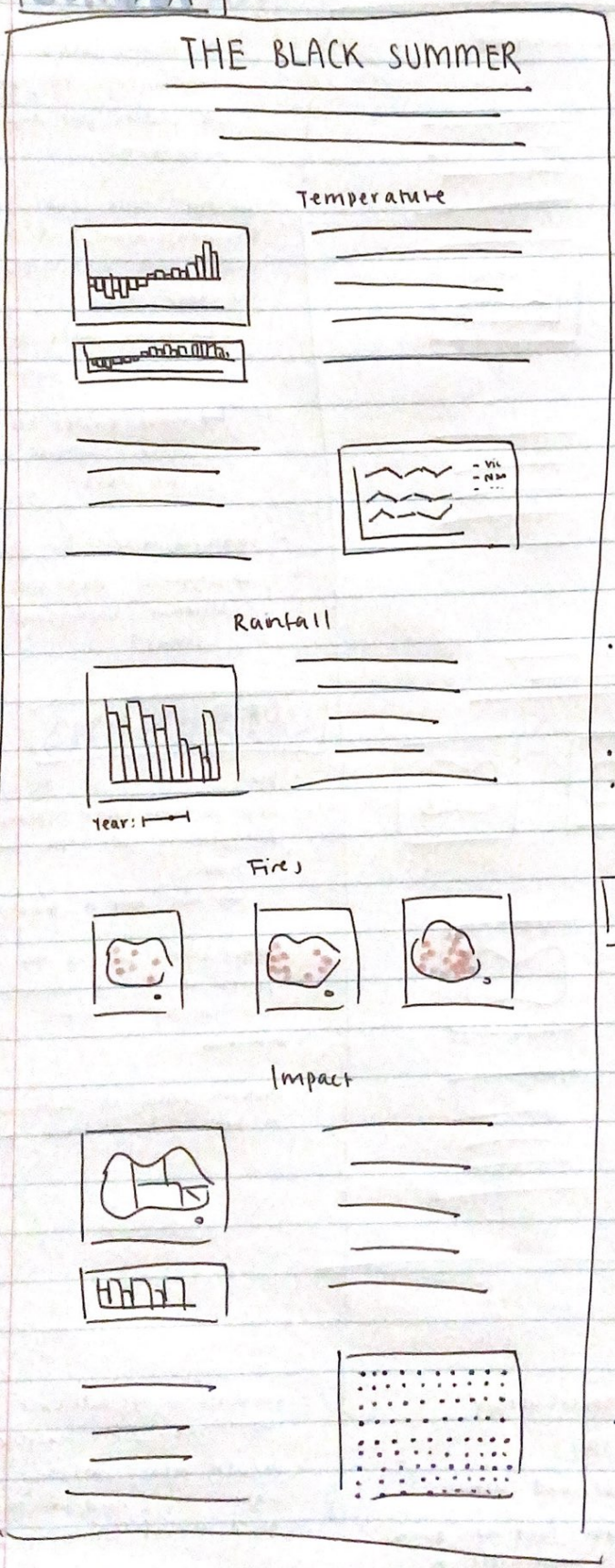
- play animation for dot density map to show fires appearing and disappearing over the entire summer
  - ↳ not sure if feasible
- range slider at the top that applies to all 3 temperature and rainfall charts
- click on legend of multi-line chart to highlight a state line

DISCUSSION

- no interactivity in 'impact section'.
- 'Fires' section is more full
- clear story with well-defined sections
- ~~time~~ available year data may not align for the three charts to implement a universal year range slider
- animation is difficult
  - ↳ probably not feasible
- layout relies on clear sight lines, need to ensure good use of white space.

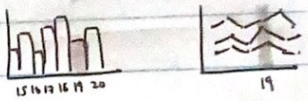
REALISATION

LAYOUT



FOCUS

- no one chart is the main focus
- emphasis on story-telling with scrolling
- within each section, if there are time-series charts, emphasise the year 2019



OPERATIONS

- brush selection to only display a specific time range for temperature bar chart
- select state in legend to highlight associated line
  - ↳ others become less opaque
- year slider for rainfall bar chart
- tooltips, display information when you hover over a mark

DETAILS

- using vegalite to create charts
- html + css to create website and format
- estimated time:
  - ↳ ~10 hours for creating charts
  - ↳ ~ 8 hours for html + css due to steeper learning curve
- datasets from BOM (weather), NASA (fire spots)
- extra research for written information
- need to ensure visualisation scales well depending on screen dimension