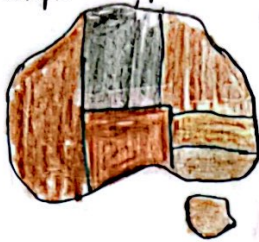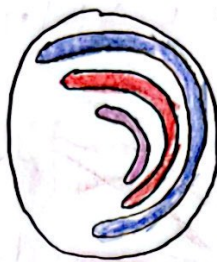# IDEAS

→ Choropleth Map

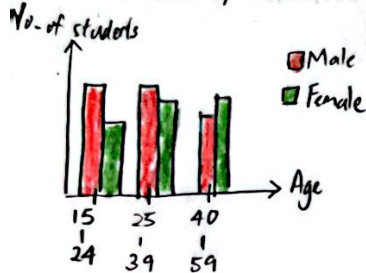- Current number of students by STATE / TERRITORY
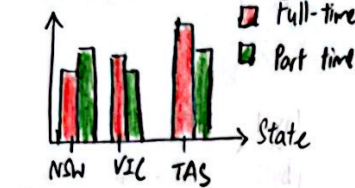
→ Radial Bar Chart

- Level of education to labour force status
- Field of trade of apprenticeship

→ Grouped Bar Chart

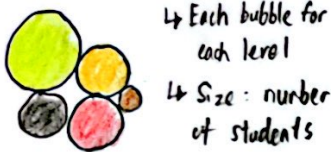- Current number of students in non-school by AGE & SEX

No. of students

■ Male
■ Female

Age

15   25   40
| | |
24   39   59

- Current number of students in non-school by state & enrollment type

No. of students

■ Full-time
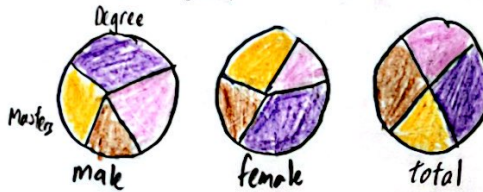■ Part time

State

NSW   VIC   TAS

→ Bubble chart

- Current number of students in non-schools by LEVEL

↳ Each bubble for each level
↳ Size: number of students

→ Pie chart
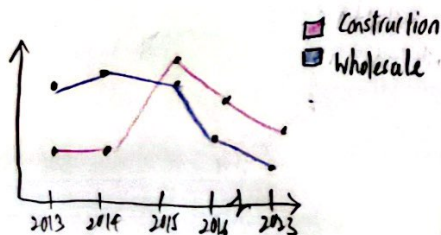
- Number of students by LEVEL & Gender for each chart
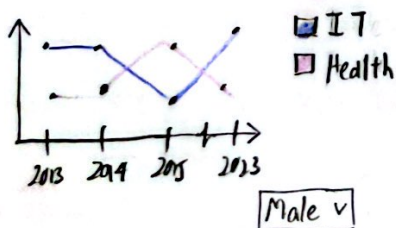
Degree

Masters

male   female   total

- Number of students by field of study

IT

Health

Education

→ Line chart

- Apprentice and trainees from 2013 to 2023, by industry

■ Construction
■ Wholesale

2013 2014 2015 2016 2023

- Main field of study from 2013 to 2023, by gender

■ IT
■ Health

2013 2014 2015 2023

Male v

FILTER

→ 2 bar charts
↳ By state & enrollment type
  - More data being shown

■ FT
■ PT

NSW   VIC   TAS   State
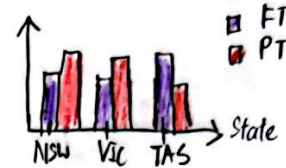
→ 2 pie charts
↳ by field of study
  - shows the proportion for field of study

IT

Education

CATEGORIZE

Number of students by state

↓

Level & field of study for students

↓

Labour force & trainees
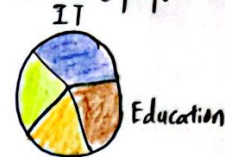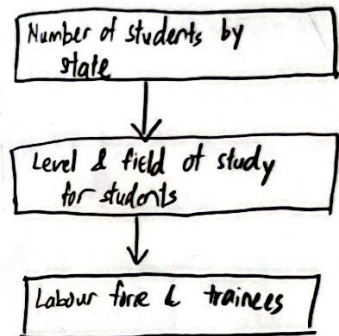
COMBINE & REFINE

→ Number of students by LEVEL

Bubble chart   Pie chart for each gender

+

⇩

Bubble chart + Filter for gender
TOTAL

v Total

QUESTIONS

- Are these implementations possible

- Does it visualizes the entire data

- Does it have a clear story?

Title : Number of Tertiary Education
Students in Australia
Author : Brandon Lim
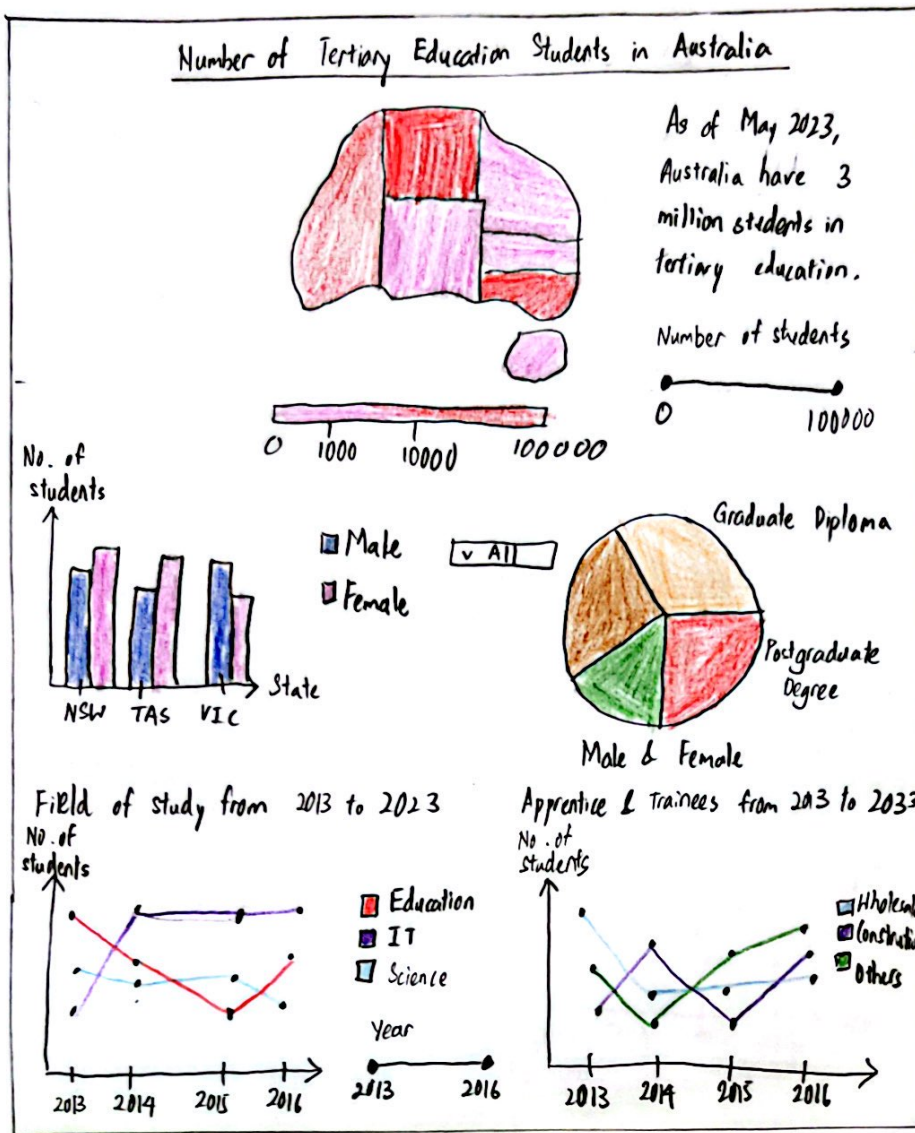Date: 1/10/2024
Sheet : 2
Task: Generalized Dashboard

LAYOUT

Number of Tertiary Education Students in Australia

As of May 2023, Australia have 3 million students in tertiary education.

Number of students

0 ——————— 100000

No. of students

Number of students: 0 1000 10000 100000

☐ Male
☐ Female

v All

No. of students

NSW TAS VIC State

Graduate Diploma

Postgraduate Degree

Male & Female

Field of study from 2013 to 2023
No. of students

☐ Education
☐ IT
☐ Science

Year

2013 2014 2015 2016   2013   2016

Apprentice & Trainees from 2013 to 2033
No. of students

☐ Wholesale
☐ Construction
☐ Others

2013 2014 2015 2016

FOCUS

⤷ All charts are equally important

⤷ All charts uses similiar proportion, allow users to have a good overall view on all idioms

⤷ Legends used to allow users to understand easily

⤷ Colours will be used efficiently to differentiate between elements

⤷ Sliders and dropdown tools for users to filter data that will be displayed

OPERATIONS

⤷ There are sliders for both the map to filter the number of students, and the line charts to select the time frame from 2013 to 2023

2013 ——— 2023   →   2017 ——— 2022

After filtering, the idioms will changed accordingly

⤷ Hover over each state to see values of each state

⤷ Hover over each bar to see exact values of students in each state, differ by gender

⤷ Hover over each section in the pie chart for values

⤷ A dropdown tool is used to allow users to select genders for bar chart and piechart.

DISCUSSIONS

Pros
⤷ The visualisation is well-structed and concise

⤷ Contains all available information

⤷ Contains legends that improves readibility

Cons
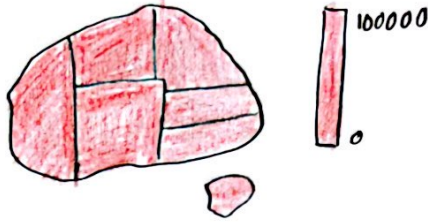⤷ Title is too simple
⤷ Layout does not have nice story flow
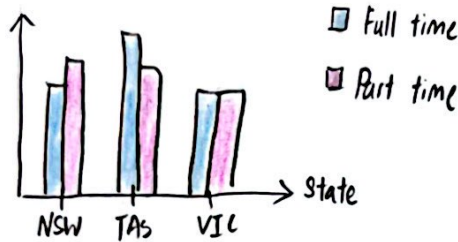
⤷ Difficult to highlight any charts

LAYOUT

Life after Secondary School: Education Choices of Students in Australia

As of May 2023,
- - - - - -
. . . .

100000

0

Zoom level : ====● 5

Enrollment type of students

☐ Full time
☐ Part time

State

NSW TAS VIC

Level of study

■ Postgraduate
■ Bachelor
■ Advanced Diploma
■ Diploma

Main field of study from 2013 to 2023

No. of students

■ IT
■ Health

2013 2014 2015 2016 Year

Filter

Year

Field of trade of apprenticeship

To gain experience,
- - - .
- - - .

47%
20%
60%

[✓ All]

OPERATIONS

↳ There are sliders to zoom in and out of the map

Zoom Level: ====● 5

↳ When a state is clicked on the map, the bar chart showing the enrollment type will change, showing the clicked state.

↳ Hover over each bubble to view the exact value of number of students for each level

↳ Users can filter the time frame for displaying the main field of study

↳ Users can select field of trade of apprenticeship using the dropdown menu

DISCUSSIONS

Pros
↳ Focused on the map, where some idioms is based on it

↳ Interactive visualisations such as the line charts

↳ Title is interesting

Cons
↳ Shows only basic information

↳ Too much white space

FOCUS

↳ Size of each bubble represents the number of students for each level.

  >

↳ Colours used for the map will be colour saturation, to show the increase or decrease in value

↳ Legends used to allow users to understand easily

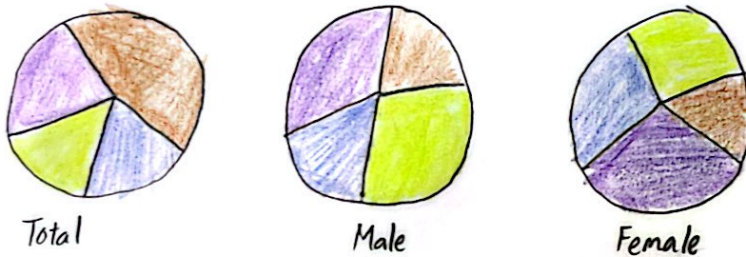↳ sliders and dropdown tools for users to filter data to display

LAYOUT

Life after Secondary School : Education Choices of Students in Australia

Current number of students by State

There are 2 million students . . .

☐ Male
☐ Female

[∨ All]
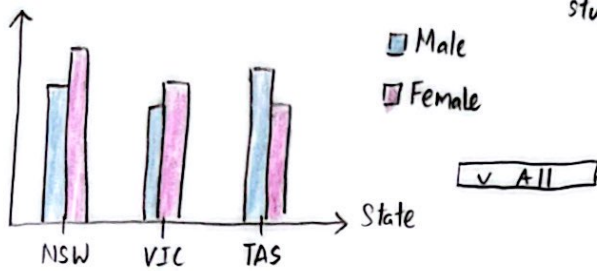
Number of students by level of education

Total   Male   Female

Main field of study from 2013 to 2023

■ IT
☐ Health
☐ Education
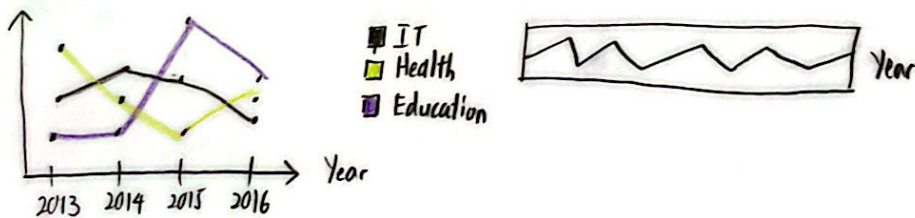
Labour force status of students of each level of education

☐ Full-time
☐ Part-time
☐ Unemployed

[∨ All]

FOCUS

↳ The 3 pie charts provide different values for each gender

↳ Colours will be used efficiently to enhance interpretability

↳ Legends used to allow users to understand easily

↳ Sliders and dropdown tools for users to filter data to display

OPERATIONS

↳ There are dropdown tools for the grouped bar chart and radial bar chart to select states or level of education

↳ There is slider available to filter the time frame of the line chart

↳ Hover over each bar in the bar charts to view exact values

↳ Hover over each section in the pie chart to view exact values

DISCUSSIONS

Pros

↳ Focused on more detailed data such as level of education and main field of study
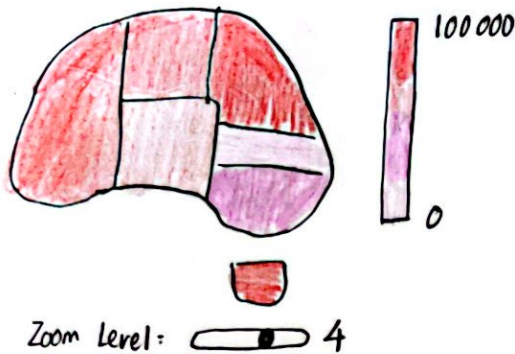
Cons

↳ No clear story flow
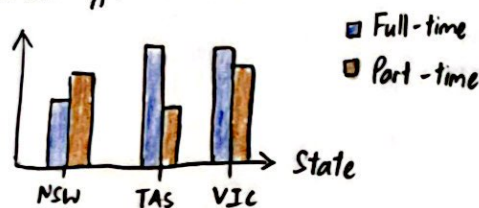
↳ Less interaction for users

LAYOUT

Same as Sheet 3

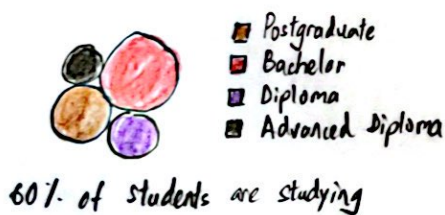## Life after Secondary School: Education Choices of Students in Australia
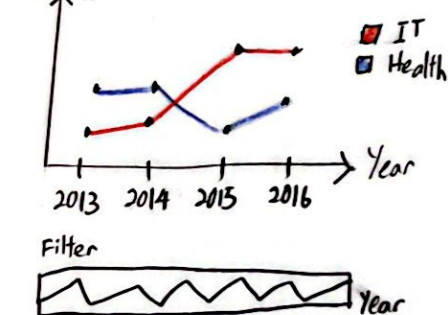
As of May 2023,
. . . .

100 000

0

Zoom Level: ⬤4

Enrollment type of students

- Full-time
- Part-time

State

NSW   TAS   VIC

Number of students by level of study

- Postgraduate
- Bachelor
- Diploma
- Advanced Diploma

60% of students are studying
. . . . .

Main field of study from 2013 to 2023

No. of students

- IT
- Health

2013   2014   2015   2016   Year

Filter

Year

Field of trade of apprenticeship

To gain experience,
. . . . .

60%
20%
5%

- Communication
- Construction
- Medical

⌄ All

FOCUS

- Size of each bubble represents the number of students for each level

  ⬤ > ○

- Colours used for the map will be colour saturation, to show the increase or decrease in value

- Legends used to allow users to understand easily

- Sliders and dropdown tools for users to filter data to display

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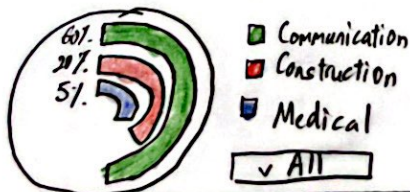
OPERATIONS

- There are sliders to zoom in and out of the map

  Zoom Level: ⬤4

- When a state is clicked on the map, the bar chart showing the enrollment type will change, showing the clicked state.

- Hover over each bubble to view the exact value of number of students for each level

- Users can filter the time frame for displaying the main field of study

- Users can select field of trade of apprenticeship using the dropdown menu

DETAIL

- Dependencies: Using Vega-Lite and HTML to produce visualisation after data clearing using Excel & R.

- Estimated time:
  - 2 days to find and understand data
  - 3 days to generate ideas and build layouts
  - 1 day to finalize design