Monash University Faculty of Information Technology

FIT5147 Data Exploration and Visualisation

Assignment 2 | DataVis Design Exercise

Please carefully review all the requirements below to ensure you have a good understanding of what is required for your assessment.

- 1. Due Date
- 2. Instructions & Brief
- 3. Assessment Resources
- 4. Assessment Criteria
 - 1. Grading Criteria
 - 2. Word Count (& Penalties)
- 5. How to Submit
- 6. Late Submissions and Special Consideration

1. Due Date

11:55pm Monday 30th March 2020

2. Instructions & Brief

In this assignment, you are assumed to be given some data and required to come up with alternate ways of visualising the data and to critique these. This is a **group** assignment: you should work together in **pairs** or **triples** and each member of the group will receive the **same** mark. It is worth **10%** of your total mark for FIT5147.

*** Please post information about your group members on your private discussion forum by Friday 5pm AEDT week 2. If no information is sent by then, we will assume that you will do this assignment on your own. However, you are highly encouraged to do it in a group. ***

Relevant learning outcomes for FIT5147:

- 3. critically evaluate and interpret a data visualisation;
- 4. distinguish standard visualisations for qualitative, quantitative, temporal and spatial data:
- 5. choose an appropriate data visualisation

Brief

You are to come up with visualisations to help understand a data set collected by the Australian Government, who is investigating the changes of population and migrant movements over time.

Assume that the collected data set consists of records of population and migrations for each Australian state/territory (NSW, VIC, QLD, SA, TAS, NT, ACT, WA) for the last 20 years. For **each** state/territory and **each** year, assume you will be given the following data:

- **Population**: the total number of residents in the state/territory.
- **In-Migrants**: the number of migrants moved in. You will have access to the composition of the in-migrant population, including:
 - The portion of internal and external in-migrants:
 - The number of internal in-migrants: refers to the number of migrants moving into the state/territory in that year, from another Australian state/territory. Assume that you will also have access to the detailed breakdowns of the migrant numbers according to different previous states of residence.
 - The number of external in-migrants: refers to the number of migrants moving into the state/territory in that year from another country.
 Assume that you will also have access to the detailed breakdowns of the in-migrant number according to different previous countries of residence.
- **Out-Migrants**: the number of migrants moved out. You will have access to the composition of the out-migrant population, including:
 - The portion of internal and external out-migrants:
 - The number of internal out-migrants: refers to the number of migrants moving out from the state/territory in that year, to another Australian state/territory. Assume that you will also have access to the detailed breakdowns of the out-migrant number according to different destination states.
 - The number of external out-migrants: refers to the number of migrants moving out from the state/territory in that year to another country. Assume that you will also have access to the detailed breakdowns of the out-migrant number according to different destination countries.

Your job is to:

1. Using the Five Design Sheet methodology, design and mock-up a way of visualising the data and explain the reason for your design, any user interaction it supports and any alternatives you considered. Note that the data does not need to be shown in a single view. If you like you can use multiple views in which case you should describe how they are linked and what interaction links them.

2. Submit the mock-ups and short critiques as a **Powerpoint or PDF** presentation of **5-10 slides.** You can create the mock-up using any technology you like including PowerPoint or pencil and paper. Note that in the slides, you will need to demonstrate a proper use of five design sheet methodology during the design process.

Selected groups will be asked to present their designs in the meet-up sessions in week 6. You will be notified before the session if you are to present.

3. Assessment Resources

You will need the following resources in order to complete this assessment item.

• You may need to review the <u>FIT citation style</u> tutorial to make sure you're familiar with appropriate citing and referencing for this assessment. Also review the <u>demystifying citing and referencing</u> for help.

4. Assessment Criteria

The following outlines the criteria which you will be assessed against.

4.1 Grading criteria

- Appropriate use of Five Design Sheet methodology
- Quality, suitability, novelty and scalability of design
- Quality of critique of design and consideration of design alternatives
- Quality of presentation slides

4.2 Word Count & Penalties

Max of 10 presentation slides.

5. How to Submit

Once you have completed your work, take the following steps to submit your work.

- 1. On Moodle, **upload** your work as a **PDF** or **ppt** file via a Turnitin submission link.
- 2. Please ensure you name the file correctly using the following format:

LastName_StudentNumber_Assessment#

e.g., Finn_21872187_Assessment2.pdf

3. Click the **Submit** button to submit your assignment.

If you are in a group, only one member needs to submit the work. Name the file using the following format:

LastName1LastName2_Assessment#

e.g., FinnDameron_Assessment2.pdf

6. Late Submissions and Special Considerations

Extensions and other individual alterations to the assessment regime will only be considered using the Faculty Special Consideration Policy. Students should carefully read the Special Consideration website, especially the details about what formal documentation is required. You should also contact Monash Online Student Services at MonashOnline.StudentSuccess@monash.edu to obtain the special consideration form and information about the necessary documentation you have to submit to support your application.

You need to apply no later than two days after the due date. You should submit your complete application to < <u>MonashOnline.StudentSuccess@monash.edu</u>>.

A late submission **penalty** applies (5% per day). Submissions with more than **4 days delay** will not be marked. No distinction is made between weekdays and weekends