Coursework

INF4000 Data Visualisation 2024 - 2025

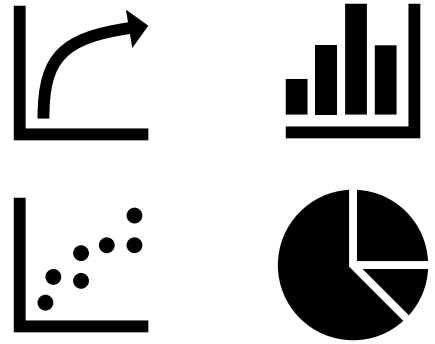
Coursework Overview

- Pass mark: 50
- 3000 word long with 10% allowance either way
  - If more or less, marks will be deducted
- Deadline: 21th January 2024, 2:00 PM
  - Submission at 2:00:01 PM will be treated as 1 day delay
  - 5% deduction for every day delayed
- Centred around a composite visualisation that you have created
  - All discussions will be around this visualisation
  - Composite visualisation is a visualisation that integrates multiple charts
  - For your coursework, you must integrate at least 4 charts
  - Charts belonging to the same broad topic

Report Format

Page 1: course code, word count, reg number etc

Then: The composite visualisation (at least 4 charts)



This will be marked

See details in the coursework brief on blackboard

You are recommended to upload your code to GitHub (not marked)

After this, you will need to write **5 sections**:

1 - Knowledge Building

2 - Theoretical Frameworks

3 - Accessibility

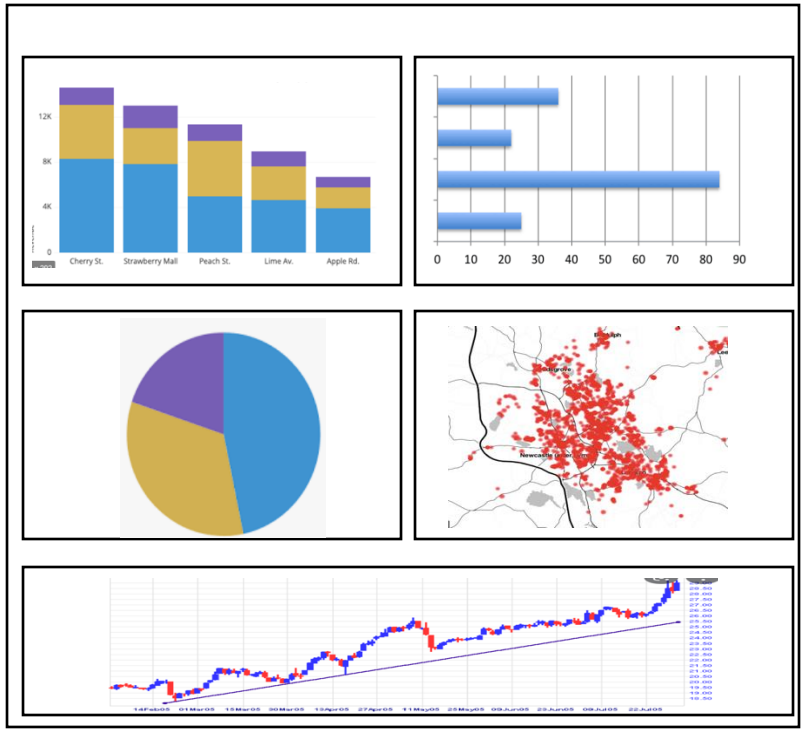
4 - Visualisation choice

5 - Implications and Improvements

Reference

Composite visualisation

- Charts in the visualisation will belong to the same broad topic
  - Example of topics: economy, health, education, gender equality
- Charts will need to complement each other
  - So, do not use two different charts to show the same data (e.g., pie chart and bar chart to show the same distribution of GDP)
- Remember the value of annotations, labels, axes, legends etc.
- Present the visualisation right after the cover page



Datasets

- You must use the same dataset as your INF6027 assignment, selected from the approved data sources
  - World Bank Open Data
  - Our World in Data
  - Office for National Statistics
  - ...
  - See appendix in either INF4000 or INF6027 coursework brief

Sections

- All sections are equally important

1. Knowledge Building
2. Theoretical Frameworks
3. Accessibility
4. Visualisation Choice
5. Implications and Improvements

1. Knowledge Building

- Clearly state the topic and explain why the topic is important
- Explain what the visualisation is showing and what new knowledge it provides about the topic
- Appropriate literature sources
- Sufficient discussion

2. Theoretical Frameworks

- Clearly state the question to answer
- Detailed description for each of the six stages in the ASSERT framework
- Discussion using grammar of graphics (multiple occasions), explaining the different elements of grammar of graphics
- Appropriate literature sources – academic references have more priority

3. Accessibility

- Describe what accessibility means in visualisation
- Discussion on whether the visualisation is accessible and what design choices you made helped or hindered accessibility
- Appropriate literature sources
- Sufficient discussion

4. Visualisation Choice

- Justify why you chose the type of visualisation
- Discuss possible alternatives (at least two items)
- Appropriate literature sources
- Sufficient discussion related to the goal of the visualisation

5. Implications and Improvements

- Discussion and reflection on visualisations in the topic you choose
- References to examples or discussions (news, literature)
- Propose improvements on the visualisation you created

Focus of each section

- Section 1 should cover the whole composite visualisation
  1. Knowledge Building

- Sections 2-5 should each mainly focus on a different visualisation
  2. Theoretical Frameworks
  3. Accessibility
  4. Visualisation Choice
  5. Implications and Improvements

Engage with the literature – all sections

- Knowledge Building – engage with domain literature
- Other sections – engage with relevant literature e.g. accessibility, visualisation choice, improvements, risks/ethical issues etc.
- Synthesis of the literature – NOT summaries of papers

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In general, however, it is understood that smart cities make use of information and communication technology (ICT) extensively to help cities to build their competitive advantages (**Yigitcanlar and Baum 2008**; **Caragliu et al. 2011**), or that it is a conceptual model where urban development is achieved through the use of human, collective and technological capital (**Angelidou 2014**). The term smart city is, therefore, an umbrella concept that contains a number of subthemes such as smart urbanism, smart economy, sustainable and smart environment, smart technology, smart energy, smart mobility, smart health, and so on (**Gudes et al.2010**; **Cocchia 2014**; **Lara et al. 2016**).

Questions?