

# A Report Template for Stat3622 DataViz Project

*Your Name(s)*

*The University of Hong Kong*

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## **Abstract**

This is a template for writing a scientific report of PDF format in R markdown. You may start with the problem statement in one or two lines. To solve this problem, describe the data and visualization techniques under consideration. Then, summarize your results and interesting findings. The whole abstract is best written by a paragraph of four or five lines. You may directly modify this template to make your own report.

## **1 Introduction**

Introduce the background of the project, including: 1) what motivated you to choose this topic? why is it important or interesting to the general public, a particular field, or just yourself? 2) what has been done by others? and what is lacking so far? cite the references. 3) what is new in this project? and why this study is important? 4) the organization of this report (e.g. Section 2 is about data, Section 3 is about visualization methodology, etc). Thus, you may have at least four paragraphs in the first section.

## **2 Data**

Describe the data used for this project, including: 1) what is unique about the data? 2) the data source, e.g. the website or the certain organization that hosts the data; 3) the data format and volume, and how you extracted/transformed/loaded the data?

You may conduct some *initial* data analysis, including some simple statistics or very basic charts. They may help you describe the problem and define the scientific study through what you will propose in what follows.

## **3 Methodology**

Describe the new methodology you propose through use of data visualization. You need to explain: 1) what is novel, i.e. not done by others; 2) what makes it interesting to the particular data under consideration? 3) what new results are expected to be found?

## **4 Results**

You may either include R chunks to generate static, dynamic or interactive plots and display them directly along with the report, or refer to external site that hosts your Shiny app. In the later case, you may include the screenshot of your app, and explain what and how is being visualized.

Write about your interesting findings through DataViz justifications. This is the key part of your project!

## **5 Conclusion**

Summarize your work with emphasis on your findings. List unsolved/extensive problems as future works.

## 6 Acknowledgement

This project is to fulfill a requirement of Stat3622 Data Visualization course in the University of Hong Kong.  
We would thank ... for ....

## 7 References

1. List the relevant articles if cited above
2. List the website(s) of the data, or tools