Guide for Projects

STAT394

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T2-2025

1 Map

Follow these steps:

1. Read the article by Andonie and Dzitac (2010). Mandatory sections: 1, 4 and 5; the rest is relevant, albeit optional.
2. Read the rest of this document
3. Grab your project
4. Acquire the data you will have to work with
5. Meet and discuss with your team the tasks distribution
6. Create a Git repository and store the data and the documents (report, slides, lab notebook, etc.); you may use the structure proposed by Frery, Gomez, and Medeiros (2020).
7. Gather frequently
8. Start writing as soon as possible.
9. Deadline for submission of the group report: 10 October 2025 at 18:00.

2 Introduction

Part of the course assessment is a project. Projects have two components:

- The presentation (7 marks)
- The report (8 marks)

Presentations must be made by all team members. The presentation mark will take into consideration the distribution of topics, the time spent by each member (should be evenly distributed), the ability to answer questions, and the quality (completeness, correctness, visual quality) of the material presented.

3 Topics and Presentation Order

I run the following reproducible code to assign projects 2 to 7 to groups 1 to 6, and to assign a presentation slot (column "Sequence").

```
set.seed(123456789, kind="Mersenne-Twister")

Group <- 1:6
Project <- sample(2:7)
Sequence <- sample(1:6)

Association <- data.frame(Group, Project, Sequence)
knitr::kable(Association, row.names=FALSE, format = "markdown")
```

Group	Project	Sequence
1	5	6
2	3	4
3	4	5
4	7	3
5	6	1
6	2	2

The first group to present (Sequence 1) is Group 5, and they will work on Project 6.

It is highly recommended to produce your slides using LaTeX, RMarkdown or Quarto.

4 Report

Prepare your report using LaTeX, RMarkdown or Quarto (this is mandatory), and submit the PDF. Using BibTeX for the references is highly recommended because I will check their formatting. The references must be complete and, whenever adequate, to indexed journals and books available in our university's library.

Each project has a set of questions. Do your best to answer them, and try to go beyond.

Only show code that you will discuss.

Make your report visually consistent.

Organise your report as a scientific article, i.e., typically in four sections:

1. Introduction
2. Methodology
3. Results
4. Discussion

Remember that the most valuable component of a report is the interpretation.

Hint: Write a colleague's part. This will help you understand the whole instead of focusing only on the part that you developed. Also, it will help you communicate effectively what you did.

References

Andonie, R., and I. Dzitac. 2010. "How to Write a Good Paper in Computer Science and How Will It Be Measured by ISI Web of Knowledge." *International Journal of Computers, Communications & Control* V (4): 432–44. https://doi.org/10.15837/ijccc.2010.4.2493.

Frery, A. C., L. Gomez, and A. C. Medeiros. 2020. "A Badging System for Reproducibility and Replicability in Remote Sensing Research." *IEEE Journal of Selected Topics on Applied Earth Observations and Remote Sensing* 13: 4988–95. https://doi.org/10.1109/JSTARS.2020.3019418.