Project Title

Name I, First Name I Name II, First Name II
Name III, First Name III

2024-10-31

This is the abstract of the report. It should be a short summary of the project, the data, the analysis and the results. It should be concise and to the point. It should not be longer than 250 words.

Table of contents

How to include sections separately

- You can use `{include X}` to include different sections of your report as separate `.qmd` files. This is also well documented in the Quarto documentation: https://quarto.org/docs/authoring/includes
- As mentioned in the documentation, we have used (_) prefix for the included files (e.g., `_introduction.qmd` and `_data.qmd`). You should always use an underscore prefix with included files so that they are automatically ignored (i.e. not treated as standalone files) by a quarto render of a project (not absolutely necessary in your case, but highly recommended).
- Rendering only `report.qmd` will render also all the other files.

Introduction

Project Goals

Describe the main goals of the project, including the motivation behind the research and the key questions you aim to answer.

Research Questions

- Question 1: ...
- Question 2: ...
- (Add as necessary)

Adjustments or Refinements

Discuss any changes or refinements to the project scope or questions based on initial findings or data constraints.

Data

Sources

Describe the sources of your data, such as public datasets, API collections, or scraped data.

Description

Summarize the main features of the dataset, including the types of variables, their formats, and any relevant metadata.

Wrangling/Cleaning

Document the data preprocessing steps taken so far, including cleaning, transformation, and any merging of datasets.

Spotting Mistakes and Missing Data

Discuss any identified mistakes or issues with missing data and describe your approach to handling them.

Listing Anomalies and Outliers

Identify any anomalies or outliers discovered so far, along with your approach to assessing their impact.

```
# Example of a code block for data cleaning

# load data
# Example loading and cleaning steps
data <- read.csv(here::here("data/raw/data_raw.csv"))

# Example cleaning steps (we already loaded `tidyverse` in the report setup
 ↪  chunk)
data_clean <- data %>%
  filter(!is.na(behavior) & !is.na(performance)) %>%  # filter out NAs in
   ↪  both relevant columns
  mutate(
    behavior = as.factor(behavior),    # convert behavior to factor
```

```
    TA = as.factor(TA)                  # also convert TA to factor since it's
     ↪  categorical
  )

knitr::kable(data_clean)
```

TA	behavior	performance
Ilia	top	1
Leo	excellent	1
Elwin	exemplary	1

```
# Write the cleaned data to a new file
# e.g.
# write.csv(data_clean, "data/clean/data_processed.csv", row.names = FALSE)
```

Exploratory Data Analysis (EDA)

Initial Visualizations

Present initial visualizations to help understand data distributions and relationships between variables.

```
# Example code block for EDA visualization: Histogram of a numeric variable
 ↪  (once again, we already loaded `ggplot2` in the setup chunk)
ggplot(data_clean, aes(x = numeric_variable)) +
  geom_histogram(binwidth = 5) +
  labs(title = "Distribution of Numeric Variable")
```

Summary Statistics

Provide summary statistics for key variables to give an overview of the data.

```
# Summary statistics example
summary(data_clean)
```

Key Findings or Patterns

Summarize any preliminary patterns or insights observed in the data so far.

Analysis

Methods

Outline the preliminary statistical methods or models selected, along with the rationale for their selection.

Goals for Each Method

Describe what each method aims to achieve or uncover in the data.

```
# Example code block for model setup
# Setting up a linear model
model <- lm(outcome_variable ~ predictor_variable, data = data_clean)
summary(model)
```

Preliminary Results

Provide any preliminary results or observations from applying these methods.

Conclusion

Progress Summary

Summarize what has been achieved so far, including key insights or takeaways from the analysis and EDA.

Next Steps

Outline the next steps planned for completing the project, such as refining analyses, adding new methods, or addressing outstanding data issues.

Final Thoughts

Briefly reflect on any challenges or limitations encountered so far and how these might be addressed in the final report.