Write a clear and informative project title here

MATH 3570 Intro to Data Science Spring 2026

Your Team Name

2026-04-23

Replace all bracketed text with your own writing. Delete any instructional notes that are not part of your final report.

1 Introduction

[In 1 to 3 paragraphs, introduce the topic, explain why it matters, and state the main goal of the project.]

1.1 Research Question

[State your one main question clearly. Keep the project focused.]

2 Data Description

2.1 Data Source

[Explain where the data came from. Include the source name, website, organization, or publication if applicable.]

2.2 Observational Units

[Explain what one row of the data represents. For example, one person, one house, one song, one county, and so on.]

2.3 Key Variables

[Briefly describe the most important variables used in your project. You do not need to list every variable in the full dataset, only the variables that matter for your analysis.]

2.4 Data Limitations or Quality Concerns

[Briefly discuss any important issues in the dataset, such as missing values, measurement problems, unclear definitions, limited scope, or possible bias.]

3 Data Preparation

[Explain how you prepared the data for analysis. Write this as a clear narrative, not only as code.]

Possible items to describe if relevant:

- handling missing values
- filtering observations
- recoding variables
- reshaping data
- joining datasets
- creating new variables

3.1 Summary of Data Preparation

[Write 1 short paragraph summarizing the most important preparation steps and why they were necessary.]

4 Exploratory Analysis

[Use this section to help the reader understand the data before you apply a method. Each figure or table should have a clear purpose and should be discussed in words.]

4.1 Summary Table

[Insert at least 1 summary table here. Introduce it in words and explain what the reader should notice.]

4.2 Figure 1

[Insert Figure 1 here. Then explain what the figure shows and why it matters for your project question.]

4.3 Figure 2

[Insert Figure 2 here. Then explain what the figure shows and why it matters for your project question.]

4.4 Figure 3

[Insert Figure 3 here. Then explain what the figure shows and why it matters for your project question.]

[Add more figures if they are useful, but do not include plots only to fill space.]

5 Method

[Explain the method or methods you used. Use clear language. The goal is to show that you understand what the method does and why it is appropriate for your question.]

5.1 Chosen Method

[Name the method here, such as multiple linear regression, logistic regression, decision tree, k-nearest neighbors, principal component analysis, or k-means clustering.]

5.2 Why This Method Was Used

[Explain why this method fits your project question and your data.]

5.3 Important Details

[Briefly explain any key choices you made, such as predictor variables, training and testing split, tuning choices, selected number of clusters, or principal components interpreted.]

6 Results

[Present the main findings from your method. Focus on the results that help answer your question.]

6.1 Main Findings

[Explain the most important results in plain language.]

6.2 Interpretation

[Interpret the results carefully in context. Avoid overstating what the analysis shows. Be especially careful about prediction versus explanation and association versus causation.]

7 Limitations

[Discuss important limitations of the data, method, and conclusions. This section should be honest and thoughtful.]

Possible ideas to discuss if relevant:

- missing information
- possible bias
- model assumptions
- measurement error
- limited generalizability
- small sample size
- uncertainty in the conclusions

8 Conclusion

[Write a short conclusion that answers the main project question as clearly as possible. Summarize the most important takeaway in plain language.]

9 References

[List any sources you used, such as the dataset source, articles, documentation, or other references.]

10 Appendix A. AI Use Statement

Our team used the following AI tool or tools: [name of tool or tools].

AI was used for the following tasks:

- [example: brainstorming possible project questions]
- [example: helping explain code errors]
- [example: improving wording or editing sentences]
- [example: suggesting visualization ideas]

To check and revise the AI output, our team:

- [example: verified results using our own code and analysis]
- [example: corrected inaccurate or vague explanations]
- [example: rewrote parts of the text in our own words]
- [example: compared suggestions against course materials and dataset documentation]

Final responsibility for the accuracy and clarity of the report remained with our team.

11 Appendix B. Team Contribution Statement

Use the format below and revise it to match your project honestly.

- **Team Member 1 Name:** [main contributions]
- **Team Member 2 Name:** [main contributions]
- **Team Member 3 Name:** [main contributions]

[Add 1 to 2 sentences describing how your team divided the work, communicated, and reviewed the final report together. If contributions were not fully equal, state that professionally and honestly.]