Writing Resources

The Mayfield Handbook's discussion of design reports is a helpful reference:
https://web.mit.edu/21.guide/www/home.htm
The Design and Feasibility Reports section includes guidelines on the standard sections of design reports, such as abstracts and introductions/overviews. Your report may vary from this format, but students often find the explanations helpful.

IEEE in-text references (not footnotes) are preferred. Here is a helpful summary of the formats:
http://www.ieee.org/documents/ieeecitationref.pdf

Gopen and Swan's "The Science of Scientific Writing" has an interesting discussion of how to write for readers without sacrificing technical content:
http://www.americanscientist.org/issues/pub/the-science-of-scientific-writing/1

Where to Start? A Roadmap

1. Illustrations: Figures, diagrams, and other graphics should be machine-drawn. Be sure to label important details *Figures must be numbered and given captions. Please credit the author of the figure in parentheses at the end of the caption*.
2. Descriptions of features: List and explain the features you actually implemented. If you want to discuss the various ways you tried to implement a feature and how you settled on the final design, you can include a discussion section later in the paper. Readers are interested in first learning what you actually did and what the current system looks like.
3. Discussion and conclusions: Use this section to discuss any technical issues you encountered and lessons learned about the system. Interesting conclusions often include a concise paragraph on future directions or modifications.
4. Introduction: You will find it easiest to write the introduction after the rest of the body of the paper is in place.
5. Abstract. Update this when you write the full report. (You may find it interesting to see what has changed.) An abstract is a digest of the whole report and is written to be read *separately* from the body of the paper. An abstract is not an introduction. Instead, it encapsulates the main points: technical problem, your solution, design methodology, and resulting design.

Suggested Outline for Design Report

- **Title Page** Describe the subject and scope of your design in less than 15 words. Include the date, title, and team members' names. The **Abstract** can be included on the title page.
- **Table of Contents**
- **List of Figures**
- **Introduction and Overview**
- **Design Description** Divide this into subsections and be sure to list the author of each section.
- **Discussion** Can be combined with the conclusion. If you have a detailed discussion, you may want to make this a separate section.
- **Conclusion** Provide a short conclusion that summarizes your accomplishments and (optionally) suggests directions for future research.
- **Acknowledgements** If you received help or advice, be sure to mention it here.