

DOCUMENT TITLE

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Abstract

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1 Format

This project is hosted on GitHub and serves as a template for creating \LaTeX documents. The theorem-like environments are inspired by the template (sleepymalc, 2022). For detail implementation, refer to the GitHub repository (Chang, 2025).

1.1 Page Layout

1.2 Header and Footer

1.3 Hyperlinks

1.4 Footnotes

1.5 Citations

1.6 References

2 Environment

An *environment* in \LaTeX is a section of the document that is formatted in a specific way. This document demonstrates various environments, including the use of scripts, tables, figures, algorithms, and framed environments. The basic usage of an environment is shown below.

```
\begin{environment}  
  some content included in the environment  
\end{environment}
```

Here are some common environments used in \LaTeX including `enumerate`, `itemize`, and `displayquote`.

1. First item in an enumerated list.	<code>\begin{enumerate}</code>
2. Second item in the same list.	<code>\item First item in an enumerated list.</code>
	<code>\item Second item in the same list.</code>
3. Third item and more ...	<code>\item Third item and more ...</code>
	<code>\end{enumerate}</code>

• First item in an unordered list.	<code>\begin{itemize}</code>
• Second item in the same list.	<code>\item First item in an unordered list.</code>
	<code>\item Second item in the same list.</code>
• Third item and more ...	<code>\item Third item and more ...</code>
	<code>\end{itemize}</code>

This is a quote, which uses the `csquotes` package with customization set inside the `document.sty` file.

```
\begin{displayquote}  
  This is a quote, which uses the  
  ↪ \texttt{csquotes} package with  
  ↪ customization set inside the  
  ↪ \texttt{document.sty} file.  
\end{displayquote}
```

2.1 Scripts

To include scripts in your document, the `minted` package is used. Here is an example of a `python` script:

```
def hello_world():
    print("Hello, World!")
hello_world()
```

```
\begin{minted}{python}
def hello_world():
    print("Hello, World!")
hello_world()
\end{minted}
```

2.2 Tables

Use the package `booktabs` for better table formatting.

2.3 Figures

2.4 Algorithms

2.5 Frames

This document demonstrates the usage of the custom theorem-like environments defined in the `document.sty` package.

Definition 2.1 (Sample Definition). This is an example of a definition environment.

Assumption 2.1 (Sample Assumption). This is an example of an assumption environment.

Conjecture 2.1 (Sample Conjecture). This is an example of a conjecture environment.

Lemma 2.1 (Sample Lemma). This is an example of a lemma. It shares the same style as the theorem environment.

Proof. This is an example of a proof environment. It is used to provide a proof for the lemma. ■

Theorem 2.1 (Sample Theorem). This is an example of a theorem environment.

Proof. This is an example of a proof for the theorem. ■

Corollary 2.1 (Sample Corollary). This is an example of a corollary. It also shares the same style as the theorem environment.

Proof. This is an example of a proof for the corollary. ■

Proposition 2.1 (Sample Proposition). This is an example of a proposition. It also shares the same style as the theorem environment.

Proof. This is an example of a proof for the proposition. ■

Remark 2.1 (Sample Remark). This is an example of a remark environment.

Example 2.1 (Sample Example). This is an example of an example environment.

Solution 2.1. This is an example of an solution environment. □

Problem 2.1 (Sample Problem). This is an example of a problem environment.

These environments are designed to enhance the readability and organization of mathematical documents. Each environment has a specific purpose and style, making it easier for readers to follow the logical flow of the content.

Appendices

References

Chang, H.-S. (2025). L^AT_EX document template.
sleepymalc. (2022). Latex template.