## Sample LaTeX Document

Hello Collabyte

June 28, 2024

#### Abstract

Duis vel lobortis ante. Nam consequat cursus metus, ut consectetur dolor hendrerit at. Etiam quis purus tincidunt, eleifend eros id, efficitur leo. Ut hendrerit vitae mi ac porta. Donec iaculis nulla sit amet risus mattis, non pharetra leo porttitor. Curabitur posuere lobortis dolor, sit amet faucibus libero eleifend quis. Maecenas sed ligula et ante interdum pulvinar. Nulla eleifend dui vel efficitur facilisis. Duis faucibus condimentum varius. Donec et magna leo. Morbi eros felis, ultricies nec urna at, pharetra tempus mauris. Donec cursus, ex placerat venenatis tempor, turpis massa vestibulum ex, at vestibulum diam ex in diam. Vestibulum ultrices justo vitae lacinia porttitor. Integer nec laoreet urna, at ultrices leo. Sed scelerisque orci eget purus lobortis, nec feugiat nisl lobortis. Suspendisse maximus laoreet augue, quis dictum erat sollicitudin vitae. Etiam ultricies est nibh, vel dignissim mauris hendrerit sit amet. Aliquam blandit ante vitae nisl placerat dignissim. Phasellus bibendum semper dolor. Vivamus ut volutpat massa, in maximus dolor. Vivamus ac elit odio. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia curae; Donec sed arcu ut velit semper finibus a et magna. Praesent nulla ligula, bibendum non iaculis vel, consequat lacinia nunc. Nullam ut egestas ante. Morbi scelerisque ac ligula in accumsan. Nunc nec elit urna. Donec molestie ac purus eget lobortis. Ut at elit ex. Phasellus interdum, neque rhoncus viverra sollicitudin, justo nisl pulvinar sapien, sed aliquet ante ligula at velit. Morbi vitae condimentum magna. Praesent eget fermentum tellus.

# Contents

| $\mathbf{A}$ | Abstract             |                                |   |
|--------------|----------------------|--------------------------------|---|
| 1            | For                  | matting Text                   | 1 |
|              | 1.1                  | Section 1                      | 1 |
|              |                      | 1.1.1 Sub section 1            | 1 |
|              | Unn                  | numbered Section               | 1 |
|              | 1.2                  | Font Styles                    | 1 |
|              | 1.3                  | Lists                          | 2 |
|              |                      | 1.3.1 Itemize                  | 2 |
|              |                      | 1.3.2 Enumerate                | 2 |
| 2            | Tab                  | ole, Image, Caption, Label     | 3 |
|              | 2.1                  | Inserting table                | 3 |
|              | 2.2                  | Inserting Image                | 4 |
|              | 2.3                  | Labels                         | 4 |
|              | 2.4                  | Writing Mathematical Functions | 5 |
| 3            | $\operatorname{Cre}$ | eating Charts                  | 6 |
|              | 3.1                  | Bar Chart                      | 6 |
|              | 3.2                  | Gantt Chart                    | 7 |
| 4            | Cita                 | ations and Bibliography        | 8 |
|              | 4.1                  | Bibliography Management        | 8 |

# List of Figures

| 2.1 | Sample image      | 4 |
|-----|-------------------|---|
| 3.1 | Example Bar Chart | 6 |
| 3.2 | Gantt Chart       | 7 |

## List of Tables

| 2.1 | A sample table               | 3 |
|-----|------------------------------|---|
| 2.2 | Different positioning values | 3 |
| 2.3 | LATEX Units                  | 4 |

## Formatting Text

#### 1.1 Section 1

This is a section.

#### 1.1.1 Sub section 1

This is a sub section.

#### **Unnumbered Section**

#### Unnumbered subsection

Unnumbered subsubsection

#### 1.2 Font Styles

This is a normal sized text. This is tiny text.

This is scriptsize text.

This is footnotesize text.

This is small text.

This is normal size text.

This is large text.

This is Large text.

This is LARGE text. This is huge text. This is Huge text.

### 1.3 Lists

#### 1.3.1 Itemize

- First item
- Second item
- Third item

#### 1.3.2 Enumerate

- 1. First item
- 2. Second item
- 3. Third item

## Table, Image, Caption, Label

### 2.1 Inserting table

| Column 1 | Column 2 | Column 3 |
|----------|----------|----------|
| Value 1  | Value 2  | Value 3  |
| Value 4  | Value 5  | Value 6  |

Table 2.1: A sample table

| Parameter | Position   |
|-----------|--|
| h         | Place the float here, i.e., approximately at the same    |
|           | point it occurs in the source text (however, not exactly |
|           | at the spot)   |
| t         | Position at the top of the page.                         |
| b         | Position at the bottom of the page.                      |
| p         | Put on a special page for floats only.                   |
| !         | Override internal parameters LaTeX uses for determin-    |
|           | ing "good" float positions.                              |
| Н         | Places the float at precisely the location in the LaTeX  |
|           | code. Requires the float package, though may cause       |
|           | problems occasionally. This is somewhat equivalent to    |
|           | h!.  |

Table 2.2: Different positioning values

| Abbreviation | Value   |
|--------------|---|
| pt           | a point is approximately $1/72.27$ inch, that means about |
|              | 0.0138 inch or 0.3515 mm (exactly point is defined as     |
|              | 1/864 of American printer's foot that is 249/250 of En-   |
|              | glish foot)   |
| mm           | a millimeter  |
| cm           | a centimeter  |
| in           | inch  |
| ex           | roughly the height of an 'x' (lowercase) in the current   |
|              | font (it depends on the font used)                        |
| em           | roughly the width of an 'M' (uppercase) in the current    |
|              | font (it depends on the font used)                        |
| mu           | math unit equal to 1/18 em, where em is taken from the    |
|              | math symbols family                                       |
| sp           | so-called "special points", a low-level unit of measure   |
|              | where 65536sp=1pt   |

Table 2.3: LATEX Units

### 2.2 Inserting Image



Figure 2.1: Sample image

### 2.3 Labels

Referencing Figure 2.1. Referencing Table 2.1.

Referencing Positioning Values 2.2.

### 2.4 Writing Mathematical Functions

$$f(x) = ax^2 + bx + c$$

Where a, b, and c are constants.

Inline:  $E = mc^2$  or  $E = mc^2$  or  $E = mc^2$ 

Display Math Mode (Unnumbered):

$$E = mc^2$$

or

$$E = mc^2$$

Display Math Mode (Equation Number):

$$E = mc^2 (2.1)$$

$$F = G \frac{m_1 m_2}{r^2} (2.2)$$

where:

- F is the force between two masses  $m_1$  and  $m_2$ ,
- G is the gravitational constant,
- r is the distance between the masses.

Referencing equation relativity: 2.1 Referencing equation gravitation: 2.2

# **Creating Charts**

### 3.1 Bar Chart

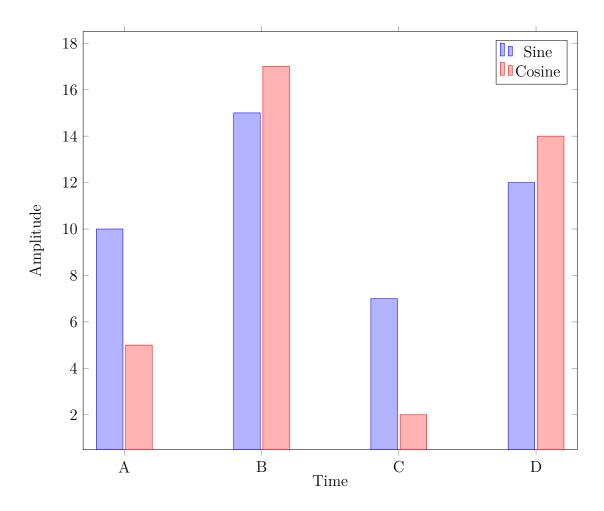


Figure 3.1: Example Bar Chart

### 3.2 Gantt Chart

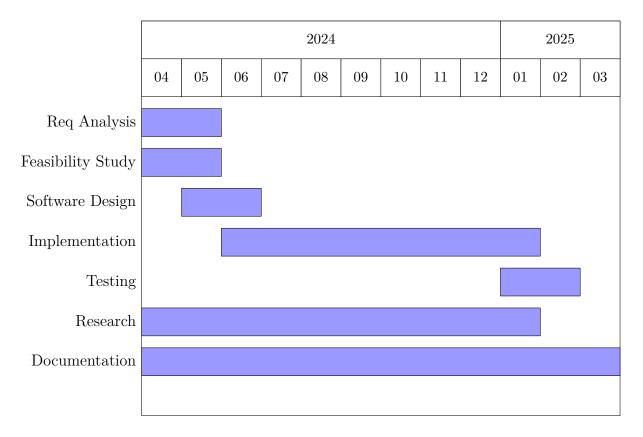


Figure 3.2: Gantt Chart

## Citations and Bibliography

#### 4.1 Bibliography Management

LaTeX is widely used in academia for the communication and publication of scientific documents and technical note-taking in many fields, owing partially to its support for complex mathematical notation.[1]

It also has a prominent role in the preparation and publication of books and articles that contain complex multilingual materials, such as Arabic and Greek.[2] LaTeX uses the TeX typesetting program for formatting its output, and is itself written in the TeX macro language.[3]

## **Bibliography**

- [1] Wikipedia contributors. Latex Wikipedia, the free encyclopedia, 2024. [Online; accessed 27-June-2024].
- [2] collabyte. Latex Wikipedia, the free encyclopedia, 2024. [Online; accessed 27-June-2024].
- [3] Me. Latex Wikipedia, the free encyclopedia, 2024. [Online; accessed 27-June-2024].