# Sample LATEXFile

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### Introduction

Your introduction goes here! Simply start writing your document and use the Recompile button to view the updated PDF preview. Examples of commonly used commands and features are listed below, to help you get started.

Once you're familiar with the editor, you can find various project setting in the Overleaf menu, accessed via the button in the very top left of the editor. To view tutorials, user guides, and further documentation, please visit our help library, or head to our plans page to choose your plan.

## Some examples to get started

#### How to create Sections and Subsections

Simply use the section and subsection commands, as in this example document! With Overleaf, all the formatting and numbering is handled automatically according to the template you've chosen. If you're using Rich Text mode, you can also create new section and subsections via the buttons in the editor toolbar.

## How to include Figures

First you have to upload the image file from your computer using the upload link in the file-tree menu. Then use the includegraphics command to include it in your document. Use the figure environment and the caption command to add a number and a caption to your figure. See the code for Figure 1 in this section for an example.

Note that your figure will automatically be placed in the most appropriate place for it, given the surrounding text and taking into account other figures or tables that may be close by.



Figure 1: This frog was uploaded via the file-tree menu.

Item	Quantity
Widgets	42
Gadgets	13

Table 1: An example table.

#### How to add Tables

Use the table and tabular environments for basic tables — see Table~??, for example. For more information, please see this help article on tables.

#### How to add Lists

You can make lists with automatic numbering ...

- 1. Like this,
- 2. and like this.

... or bullet points ...

- Like this,
- and like this.

#### How to write Mathematics

LATEX is great at typesetting mathematics. Let  $X_1, X_2, \ldots, X_n$  be a sequence of independent and identically distributed random variables with

$$\mathrm{E}[X_i] = \mu$$
 and  $\mathrm{Var}[X_i] = \sigma^2 < \infty$ , and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_{i=1}^{n} X_i$$

denote their mean. Then as n approaches infinity, the random variables  $\sqrt{n}(S_n - \mu)$  converge in distribution to a normal  $\mathcal{N}(0, \sigma^2)$ .

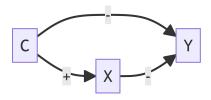
#### How to add Citations and a References List

You can simply upload a .bib file containing your BibTeX entries, created with a tool such as JabRef. You can then cite entries from it, like this: ?. Just remember to specify a bibliography style, as well as the filename of the .bib. You can find a video tutorial here to learn more about BibTeX.

If you have an upgraded account, you can also import your Mendeley or Zotero library directly as a .bib file, via the upload menu in the file-tree.

```
Error: object 'countries' not found
```

```
Error in `ggplot()`:
! `data` cannot be a function.
i Have you misspelled the `data` argument in `ggplot()`
```



## References