

# Document Structure

Long documents are easier to use if they are divided into subparts like chapters and sections. L<sup>A</sup>T<sub>E</sub>X provides commands for doing just this. Exactly what the subparts of a document are depends on the kind of document – that is, the kind of document specified in the `\documentclass` command. For instance, the `article` class allows for sections and sub-sections. These are typeset with the `\section{}` and `\subsection{}` commands; the argument to these commands (in the curly braces) is the title of the section or subsection.

## 1 Title of the first section

L<sup>A</sup>T<sub>E</sub>X automatically handles spacing between sections. Note that the first paragraph in a section is not indented (by default). This is because the purpose of indentation is to visually denote the beginning of a new paragraph – and this purpose is served by the section title itself.

### 1.1 Title of first subsection of first section

### 1.2 Title of second subsection of first section

## 2 Title of the second section

### 2.1 Title of first subsection of second section

### 2.2 Title of second subsection of second section

Other document classes may have different sectioning levels. The `book` class, for example, also has `chapters` and `parts`.

## 3 Tables of Contents

We could, with not too much difficulty, make our own custom section and subsection titles. But if we structure our document using the built in sectioning commands, L<sup>A</sup>T<sub>E</sub>X can build a table of contents for us, using the `\tableofcontents` command. In a real document the table of contents goes at the beginning, after the title and before the actual content.

**NOTE:** in order for the table of contents to be visible, we have to run L<sup>A</sup>T<sub>E</sub>X *twice*. This is because the table of contents needs to know what page each section starts on, but at the time the table is being built L<sup>A</sup>T<sub>E</sub>X does not have this information. Instead, as the document is being processed, it saves the information about page numbers (and other things) in a `toc` file. You may notice this file in the directory where your `tex` file is stored. On the first pass, L<sup>A</sup>T<sub>E</sub>X stores page numbers in the `toc` file, and on second pass uses these numbers to build the table of contents.

## Contents

<b>1</b>	<b>Title of the first section</b>	<b>1</b>
1.1	Title of first subsection of first section . . . . .	1
1.2	Title of second subsection of first section . . . . .	1
<b>2</b>	<b>Title of the second section</b>	<b>1</b>
2.1	Title of first subsection of second section . . . . .	1
2.2	Title of second subsection of second section . . . . .	1
<b>3</b>	<b>Tables of Contents</b>	<b>1</b>