Getting nice tables in the text

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Contents

Tables is usually the most difficult thing to do *properly* in LaTeX. It is because there is a number of ways to compose your text inside a cell and the basic functionality, which is provided by LaTeX does not always suit the requirements. It is very hard to cover everything needed to get nice tables in your document, so if you feel, that this tutorial have not answered your questions, please refer to this book[1].

1 Simple table usage

In this section you can find two simple tables, which are made using slightly different methods — the table 1 is made using the internal LaTeX commands, while the table 2 is made using the `booktabs`, which seems to provide better looking tables.

Table 1. A table with default separators.

First column	Second column	3rd column
1	2	3
1	2	3

Table 2. The same table, just using booktabs package and the separators, which are provided by this package.

First column	Second column	3rd column
1	2	3
1	2	3

As you can see, the table 2 looks far better, because of different spacing and line widths. The tables were produced using the code shown bellow:

[1] The URL is https://secure.wikimedia.org/wikibooks/en/wiki/LaTeX/Tables#The_table_environment_-_captioning_etc

```latex
\begin{table}[h]
    \centering
    \caption{A table with default separators.}
    \begin{tabular}{ccc}
        \hline
        First column & Second column & $\mathrm{3^{rd}}$ column
        \tabularnewline\hline
        1 & 2 & 3
        \tabularnewline
        1 & 2 & 3
        \tabularnewline\hline
    \end{tabular}
    \label{tab:table1}
\end{table}
```

```latex
\begin{table}[h]
    \centering
    \caption{The same table, just using booktabs package and the
        separators, which are provided by this package.}
    \begin{tabular}{ccc}
        \toprule
        First column & Second column & $\mathrm{3^{rd}}$ column
        \tabularnewline\midrule
        1 & 2 & 3
        \tabularnewline
        1 & 2 & 3
        \tabularnewline\bottomrule
    \end{tabular}
    \label{tab:table2}
\end{table}
```

2 Multiple lines in table cells

The basic method of constructing tables which was covered in the previous section is good only if you do not need to specify the width of the columns and you do not need to break the text inside a cell. Suppose we add one more column into our table and make use of the ability in provided by the `array` package to get any environments working inside a cell. To get more information on this please refer to this book[2].

Table 3. Table which shows the usage of getting various environments working inside a column.

First column	Second column	3^{rd} column	4^{th} column
1	2	δ	4
1	2	ϵ	4

```latex
\begin{table}[h]
    \centering
```

[2] The URL is https://secure.wikimedia.org/wikibooks/en/wiki/LaTeX/Tables#The_table_environment_-_captioning_etc

```
    \caption{Table which shows the usage of getting various environments
        working inside a column.}
    \begin{tabular}{>{\centering}m{1.4cm} >{\centering}p{1.4cm}
        >{$}c<{$} c}
        \toprule
        First column & Second column & \mathrm{3^{rd}}\text{ column} &
            $\mathrm{4^{th}}$ column
        \tabularnewline\midrule
        1 & 2 & \delta & 4
        \tabularnewline
        1 & 2 & \epsilon & 4
        \tabularnewline\bottomrule
    \end{tabular}
    \label{tab:table4}
\end{table}
```

3 Tables in documents with more than one column

Usually scientific journals use two-columns text layout, which sometimes complicates float placement inside text. This is because not all figures can be made narrow enough to fit into one column of text and if it needs to be larger, then we get some nasty overlapping, which is the least we want.

The “trick” there is to use a ’stared’ version of the `\table` environment (i.e. `\table*`). However, this has some limitations as the table float then can be added only to the top of the page. A package `stfloats` seems to offer slightly more flexibility over the placement as it provides means to put the float on the bottom of the page, however, the float still can not be placed in the middle of the page. The package `floatrow` can even take care of the caption placement automatically and it supersedes the packages `stfloats`, `float`, which makes it a very powerful alternative.

In my opinion these options are the only one which look really good, so I do not see any limitations here, it is just it is slightly harder to deal with such floats than with simple floats. Because I need more text, I will insert some dummy text using a package `blindtext` and a command provided by this package — `blindtext`.

—-========—-

Dummy text start

Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language.

Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language.

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Hello, here is some text without a meaning.

Table 4. A table in table* environment to span over the whole page.

First column	Second column	3^{rd} column	4^{th} column
1	2	δ	4
1	2	ϵ	4

This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language.

Hello, here is some text without a meaning. This text should show, how a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like »Huardest gefburn«. Kjift – Never mind! A blind text like this gives you information about the selected font, how the letters are written and the impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for a special contents, but the length of words should match to the language.

Dummy text finish

—-========—-

The source code for the table 4 is shown bellow:

```
\begin{table*}[tpb]
    \centering
    \caption{A table in table* environment to span over the whole page.}
    \begin{tabular}{p{2cm} p{2cm} p{2cm} p{2cm}}
        \toprule
        First column & Second column & $\mathrm{3^{rd}}$ column &
            $\mathrm{4^{th}}$ column
        \tabularnewline\midrule
        1 & 2 & $\delta$   & 4
        \tabularnewline
        1 & 2 & $\epsilon$ & 4
        \tabularnewline\bottomrule
    \end{tabular}
    \label{tab:table5}
\end{table*}
```