

## Introduction to Computer Science E15 – Lab – Week 37

Meet in IMADA's terminal room with your login information. Work in groups of size 2 (maybe some of size 3). This lab is about  $\LaTeX$ . Look at the notes written by Torben Nielsen and Arun Vadiveal on  $\LaTeX$  on the homepage for the course: <http://imada.sdu.dk/~joan/intro/latexbook.pdf> There are also other useful links about  $\LaTeX$  available on the course's homepage.

Do the exercises in the notes by Torben Nielsen and Arun Vadiveal. Create a document. Make sure you include something in math mode, such as  $b^{\log_b(x)} = x$  and some table, such as:

111	3
110	2
101	1
100	0
011	-1
010	-2
001	-3
000	-4

Include the  $\LaTeX$  code for the document in the document. Also include some PDF file in the final document.

To include the  $\LaTeX$  code for your document, you can use the statement `\include{copy}`. Then copy your  $\LaTeX$  code to the file, `copy.tex`, put `\begin{verbatim}` at the beginning of that file and `\end{verbatim}` at the end. Check in your output that long lines are broken so they appear correctly. PDF files can be included either by using the package `graphicx` or `pdfpages`. If you have included the package `pdfpages`, you can include, for example, pages 1 and 2 of the file `file.pdf` using the following:

```
\includepdf [pages={1,2}] {file.pdf}.
```

The  $\text{T}_{\text{E}}\text{X}/\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  system is included in the standard installation with Ubuntu, but needs to be installed under Windows (see MiKTeX) and Mac (see MacTeX, or install TeXShop). You should be able to install  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  at IMADA's install party, but the computers in IMADA's terminal room run Linux and already have it installed.

There are editors which will offer the WYSIWYG experience, but this will give you less experience in working with  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  commands, which you will need to do anyway, except for with very simple documents. You can use ordinary editors such as `gedit` (Linux) or Wordpad (Windows), or more effective editors such as Kile (all platforms), `emacs` with `auctex` (all platforms), or TeXShop (Mac).

```

\documentclass[12pt]{article}
\usepackage{hyperref}
\begin{document}
\parindent 0em
\parskip .5ex
\itemsep -0.5ex
\parsep 0em

\begin{tabular}{@{}l}
Institut for Matematik og Datalogi \\
Syddansk Universitet
\end{tabular}
\hfill
\begin{tabular}{r@{}}
\today{} \\
JFB
\end{tabular}

\vspace{2ex}
\begin{center}{\LARGE Introduction to Computer Science\ E15 -- Lab -- Week 37}
\end{center}

\vspace{1ex}

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There are also other useful links about \LaTeX available on the course's
homepage.

Create a document. Make sure you include something in math mode,
such as  $b^{\log_b(x)}=x$  and some table, such as:
$$
\begin{array}{|c|c|}
\hline

```

```

111 & 3 \\
110 & 2 \\
101 & 1 \\
100 & 0 \\
  011 & -1 \\
  010 & -2 \\
  001 & -3 \\
  000 & -4 \\
\hline
\end{array}.
$$

```

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```

\begin{center}
\texttt{\textbackslash includepdf[pages=\{1,2\}]\{file.pdf\}}.
\end{center}

```

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```