

A Latex Document Outline

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Go to overleaf.com and log on (register first if you are not already registered). Create a "New" and "Blank" project. Call it Workshop2. Download the 8 files from Nuku and upload them into your project. To see the output of a file, simply select the file and click recompile.

File: latex_480_1.tex

- Look through the file and see the basic structure of a latex document. Try to understand the function of all the commands.
- Now try and break the file and see what happens. For example, change "end{abstract}" to "end{abstract)". Also, try changing "\label{NumRes}" to "label{NumRes}".

File: latex_480_2.tex

- Look through the file and see how the itemize command works and how sections are labelled.
- Add an extra bullet to the list in latex_480_2.tex.
- Add an extra section to latex_480_2.tex and refer to it in the text.

File: latex_480_3.tex

- Look through the file and see how the equations are structured. also see how inline mathematics is written.
- See what happens with errors in the maths. Change "\beta" to "beta". Also - remove the curly brackets around "i=1" in the summation command.
- Add the following text after Equation (3):

The sample variance is

$$s^2 = \frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2, \quad (1)$$

where \bar{x} is the sample mean.

File: latex_480_4.tex

- Run the latex file, latex_480_4.tex. See the change in layout that a class file can produce.

File: latex_480_5.tex

- Go through the file, focussing on the included package, the table and the figure.
- See what happens if you remove the amsmath included package.
- Add an extra row to the table.
- Copy the graphics commands and insert them in latex_480_1.tex. Run the edited file and see how the graphics look in that style.

File: latex_480_6.tex

- Look through latex_480_6.tex and see how citations are made in the text.
- Look through sample_bibliography.bib and see how references are arranged in a bib file.
- Locate the bibtex entries for the following references and copy them into the bib file. Then cite them in latex_480_6.tex:

Journal article: Bryan, Kurt & Leise, Tanya. (2006). The \$25,000,000,000 Eigenvector: The Linear Algebra behind Google. Siam Review - SIAM REV. 48. 569-581.

Conference paper: H. Q. Ngo, E. G. Larsson and T. L. Marzetta, "Aspects of favorable propagation in Massive MIMO," 2014 22nd European Signal Processing Conference (EUSIPCO), Lisbon, 2014, pp. 76-80.

Book: Cox, D. R.; Oakes, D.: Analysis of Survival Data. Chapman and Hall, London – New York 1984.