Week 1 Solutions

Semester 1, 2025

In this activity I want you to use the Assignment template to create a report that you could submit as this week's. The aim is to to demonstrate that you understand how to use LaTeX and BibTeX (or equivalent), even if you choose not to use them on other occasions.

1. (a) Download LaTeX.zip from the LMS and expand the archive (if that doesn't happen automatically). Inside the folder that is created is another folder called 'Assignment Template', which contains a file called assignment.tex. Open this file in a text editor. (Specifically, do not use Word or any other editor that will insert hidden material in the file. A plain text editor like Notebook (on Windows) or TextEdit (on a Mac), or better still a LaTeX-aware editor of some description.)

   (b) Having opened assignment.tex you will see that there is a set of places where you need to insert indformation about yourself, your subject, and the task at hand, e.g. Exercise 1. Enter these details into your file and then save it with a name other than assignment.tex. It is helpful to use names that allow you to discern what is inside the file without opening it. For example, ECOM3-Ex1.tex might work for me. You use whatever name you wish.

   (c) From the Library catalogue, obtain the BibTeX entry corresponding to Abadir (1999). Also, manually create the BibTeX entry for Rao (1973). Add both entries to a .bib file and include the contents of the .bib file in your report. (You may want to explore the use of the `listings` package to do this.)

   (d) Do a web search for knitr. (Yes, that is how it is spelt.). If you end up at the Wikipedia page then follow the link to https://github.com/yihui/knitr-examples/blob/master/002-minimal.Rnw to see a very basic example of it's use. Convince yourself that you can run your favourite regression in R and incorporate the results using knitr. (There is a knitr manual in the Handouts folder.)

   Solution:
   I can't possibly know what your favourite regression is, but for a really helpful introduction to knitr, have a look at http://edrub.in/ARE212/latexKnitr.html. For everything else, take a look at the solution to 2.

2. Use LaTeX, strictly pdfLaTeX, to re-create the pdf document containing this Exercise. You must create a .bib file for the references and include the text of that file in your report. (You may want to explore the use of the `listings` package to do this.). If using BibTeX then you probably need to read the documentation for the `natbib`

package to see how to cite material. You may also need to use the `url` package to add the URL or the `hyperref` package.

Solution:
See the files source.tex, source.pdf, and E3_Preamble.tex.

References

Abadir, K. M. (1999). An introduction to hypergeometric functions for economists. *Econometric Reviews* 18(3), 287–330. 1

Rao, C. R. (1973). *Linear Statistical Inference and Its Applications* (2nd edition). John Wiley & Sons, Inc., New York. 1