

Technology Research Preparation

Pre-Work 1: Setting up for Assignment 2

Barry Jay

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The Skeleton of your Literature-Based Report

Your task is to produce a *skeleton* of the literature-based report that you will produce for Assignment 2. That is, it will have all of the structure of the report (the bones) but almost no content (no flesh). The goal here is to produce a report of professional standard. There are quite a few small tasks to complete. By completing them now, you can focus on the content of your report later. The main things you have to do are:

1. choose a word-processor, e.g. Latex or Word
2. choose a style file or template for your report
3. pick a topic for your report (this may change)
4. fill in your name, the report title, and the submission date (check the subject outline)
5. write a paragraph explaining why you are interested in this topic.
6. pick one scholarly paper on this topic.
7. make a citation of this paper in a second paragraph.
8. create the bibliography for the report.
9. check that everything has compiled correctly.

An example in latex

The example below is done in latex. You are welcome to use Word if you prefer, in which case you probably want to use EndNote for your references. If you want to try out latex, you will need to make sure that it is installed on your machine. The document you are reading, pre-work1.pdf, was created from pre-work1.tex (available on UTSONline) by executing the following commands

```
pdflatex pre-work1
bibtex pre-work1
pdflatex pre-work1
pdflatex pre-work1
```

The first use of “pdflatex” does a first pass through the document. Most of the formatting is done on this pass, including production of a pdf file, but section numbers, reference numbers etc are represented by question marks, whose values will be determined in subsequent passes. Then “bibtex pre-work1” creates the bibliography from a specified bibliographic database, here called two_papers.bib. Two more passes get all the numbering and references settled. Now let us go through the steps.

1. I create a file pre-work1.tex, also available on UTS online.
2. I am using the article style, as indicated by the opening line

```
\documentclass{article}
```

3. My topic is pre-work1 for TRP.
4. The title, author and date are given by

```
\title{Technology Research Preparation \\\
Pre-Work 1: Setting up for Assignment 2 }
\author{Barry Jay}
\date{Autumn 2016}
```

5. The paragraphs you see are mainly straight typing but the `enumerate` environment is used to make a numbered list, and `verbatim` is used for quotation.
6. My scholarly paper is not actually about TRP. I wrote a book about the foundations of computing, about *pattern calculus* [1] which will do to illustrate.
7. In pre-work1.tex, the citation is given by

```
... about {\em pattern calculus} \cite{pcb} ...
```

All \ are used to indicate latex commands. The “em” is used for emphasis. The “cite” is used to indicate a citation, whose key is “pcb” (for pattern calculus book).

8. The bibliography is set up using

```
\bibliographystyle{plain}
\bibliography{two_papers}
```

The first line sets the bibliographic style. The second links to the bibliographic data in “two_papers.bib”. You will need to create such a database for your papers. That doesn’t mean that you should type the data by hand. Often, the publisher will do it for you. In this case Springer supplies the information but you need to do a lot of cut and paste. So here is another paper I wrote [2] whose publisher provides a bibtex citation that you can just drop into your bib file.

If this is your first time using latex then take a copy of pre-work1.tex and check that you can make it work for you.

References

- [1] Barry Jay. *Pattern Calculus: Computing with Functions and Structures*. Springer, 2009.
- [2] Barry Jay and Delia Kesner. First-class patterns. *Journal of Functional Programming*, 19(2):191–225, 2009.