University of Glasgow | School of Computing Science

How to Produce a Level 4 Project Report

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Abstract

Robots, distributed systems, and middleware.

Education Use Consent

I hereby give my permission for this project to be shown to other University of Glasgow students and to be distributed in an electronic format. **Please note that you are under no obligation to sign this declaration, but doing so would help future students.**

Name: _____ Signature: _____

Contents

Chapter 1

Introduction

The first page, abstract and table of contents are numbered using Roman numerals. From now on pages are numbered using Arabic numerals. Therefore, immediately after the first call to \chapter we need the call \pagenumbering{arabic} and this should be called once only in the document.

The first Chapter should then be on page 1. You are allowed 50 pages for a 30 credit project and 35 pages for a 20 credit report. This includes everything up to but excluding the appendices and bibliograph, i.e. this is a limit on the body of the report.

You are not allowed to alter text size (it is currently 11pt) neither are you allowed to alter the margins.

Note that in this example, and some of the others, you need to execute the following commands the first time you process the files. Multiple calls to pdflatex are required to resolve references to labels and citations. The file bib.bib is the bibliography file.

```
> pdflatex example0
> bibtex example0
> pdflatex example0
> pdflatex example0
```

1.1 First Section in Chapter

The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog [1]. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog.

1.2 The Fox Jumps Over

The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog.

Chapter 2

Background

Chapter 3

Running the Programs

An example of running from the command line is as follows:

```
> java MaxClique BBMC1 brock200_1.clq 14400
```

This will apply $BBMC$ with $style = 1$ to the first brock200 DIMACS instance allowing 14400 seconds of cpu time.

Chapter 4

Generating Random Graphs

We generate Erdós-Rënyi random graphs $G(n, p)$ where n is the number of vertices and each edge is included in the graph with probability p independent from every other edge. It produces a random graph in DIMACS format with vertices numbered 1 to n inclusive. It can be run from the command line as follows to produce a clq file

```
> java RandomGraph 100 0.9 > 100-90-00.clq
```

Bibliography

[1] DIMACS clique benchmark instances. ftp://dimacs.rutgers.edu/pub/challenge/graph/benchmarks/clique.