
The Art of Computer Programming – A difficult book to understand

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Final Year Project

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About this project

Abstract A brief description of what the project is, in about two-hundred and fifty words.

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Chapter 1

Introduction

The main objective for this project was to create a project that displayed the skills that we have developed throughout our the four years we have spent here at GMIT. For this project I hope to create a web application that helps the user find basic gym exercises based on the sports they play. For example if the user were to select rugby exercises, the application will display a list of exercises focused on the upper body.

I decided to spend a lot of time thinking about which technologies would be suitable to create this project. During this time, I conducted research on using technologies such as Java and HTML for the front-end. The reasoning behind this would be that I had used these technologies throughout my time in GMIT and that I was very familiar with them. I also thought of using a mySQL database. The reasoning for this is that I had used this in many projects , especially my previous year in college. I chose not to use these technologies as I wanted to test myself and use technologies that I was not familiar with and see how I would get on.

The technologies that I have chosen to develop this project are React for the front-end, MongoDB to store all of the exercises and the Meteor Platform for developing the web application. I will go into greater detail, regarding the technologies used later in the 'Technology Review' section of this dissertation.

Chapter 2

Context

- Provide a context for your project.
- Set out the objectives of the project
- Briefly list each chapter / section and provide a 1-2 line description of what each section contains.
- List the resource URL (GitHub address) for the project and provide a brief list of the main elements at the URL.

2.1 Filler

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Chapter 3

Methodology

About one to two pages. Describe the way you went about your project:

- Agile / incremental and iterative approach to development. Planning, meetings.
- What about validation and testing? Junit or some other framework.
- If team based, did you use GitHub during the development process.
- Selection criteria for algorithms, languages, platforms and technologies.

Check out the nice graphs in Figure 3.2, and the nice diagram in Figure ??.

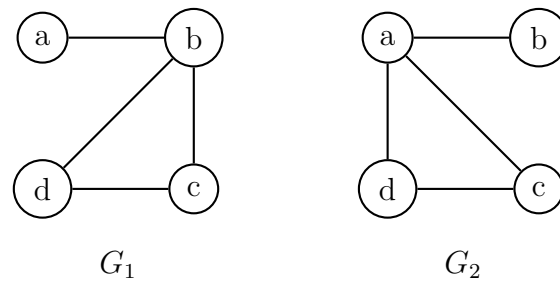


Figure 3.1: Nice pictures



Figure 3.2: Nice pictures

Chapter 4

Technology Review

About seven to ten pages.

- Describe each of the technologies you used at a conceptual level. Standards, Database Model (e.g. MongoDB, CouchDB), XML, WSDL, JSON, JAXP.
- Use references (IEEE format, e.g. [1]), Books, Papers, URLs (timestamp) – sources should be authoritative.

4.1 XML

Here's some nicely formatted XML:

```
<this>
  <looks lookswat="good">
    Good
  </looks>
</this>
```

Chapter 5

System Design

As many pages as needed.

- Architecture, UML etc. An overview of the different components of the system. Diagrams etc... Screen shots etc.

Column 1	Column 2
Rows 2.1	Row 2.2

Table 5.1: A table.

Chapter 6

System Evaluation

As many pages as needed.

- Prove that your software is robust. How? Testing etc.
- Use performance benchmarks (space and time) if algorithmic.
- Measure the outcomes / outputs of your system / software against the objectives from the Introduction.
- Highlight any limitations or opportunities in your approach or technologies used.

Chapter 7

Conclusion

About three pages.

- Briefly summarise your context and objectives (a few lines).
- Highlight your findings from the evaluation section / chapter and any opportunities identified.

Bibliography