

## Individual Project

### Aims

- Develop an understanding of how software engineers operate in industry;
- Develop an understanding of the tools used to develop large scale software;
- Develop an understanding of the software development life-cycle.

### Learning Outcomes

- Gain experience of the software development processes typically used within industry;
- Be familiar with the main tools and technologies used to support the development and management of software systems;
- Understand the key components involved in designing, building and testing a software system.

### Brief

This is a project to deliver a report on the development of a piece of software. The student should write the report on the project that they'll be doing for their dissertation over the summer. It is expected that the user will describe how they will gather requirements, design the software, then develop and test it. The project will be implemented during the summer, but it would be expected that the student would prototype pieces of the software in order to better flesh-out the requirements and design.

### Submission

If the student submits late, a late penalty may be applied to the mark. If the submission is not completed properly then this will be considered a late submission until a correct submission is made.

Each student must submit a written report covering the following topics:

- Introduction and background
- Requirements
- Design
- Construction
- Testing
- Project Management and Lifecycle

### Marking Criteria

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|--|-----|
| • Introduction and background                                  | 5%  |
| • Requirements   | 20% |
| • Design   | 20% |
| • Construction   | 15% |
| • Testing  | 20% |
| • Methodologies & tools for the software development lifecycle | 15% |
| • Structure and layout of final report                         | 5%  |

### Contribution to the overall mark

This assignment constitutes 50% of the marks for this module.

## Dates

Submission due date: 12:00 noon, Friday March 29<sup>th</sup>, 2019

Note that this project can be submitted as late as 12:00 noon, Monday April 15<sup>th</sup>, 2019 (at the end of the Spring vacation) without a late penalty being applied.