



ISM Honours 2021 Development Project Block Individual Assignment

Introduction and Submission Requirements

This assignment targets the Development Block and is intended to allow students to demonstrate their individual knowledge of programming separate from the group assignment where the contributions of individual students are less clear. This assignment is broken into two parts, a development portion and a written portion which should be completed together and submitted together.

For the written portion, You should submit only a single well formatted PDF file, using the below guidelines for the layout and format. Your PDF file should be included at the top level of your ZIP file for your development portion (documented below) when you submit that.

Format your document with 2.5cm margins all round, with the body text written in a serif font (Times New Roman or similar) in a 11pt font size. You should use 1.5 line spacing. Do not add a cover page, or a table of contents. Additionally, do not place your name on the document, but add your student number to the top-right header field, so that it appears on each page.

For your final submission, you should submit a single ZIP file to SUNLearn comprising your PDF and your Go application source code. Do not include a binary copy of your application, but ensure that it builds correctly before your submission. NB, please submit only a ZIP file, no RAR, 7ZIP, TAR or other files.

Specification

You should write any application of your choosing to solve a problem that is of interest to you. The only requirement is that it should have a minimum number of lines of code (see below) and should be written using the Go programming language (you may use features in all versions up to and including the current version - 1.17 - but do not include features from the upcoming 1.18 version.) Your program should demonstrate knowledge of some (or all) of the topics discussed during the two week classwork portion of the block.

The application you write can cover any topic. It could be terminal based, GUI based, web based, or even mobile. It could be a game, a simple tool such as a calculator, or even a business application. The options are endless. If you wish to run your idea past the lecturer or get suggestions on how to solve a specific problem you'd like to tackle, feel free to consult with the lecturer.

Alongside your application, you should write a document which explains the decisions taken while writing the application and how you tackled the task provided. This document is a casual submission, but should demonstrate (from reading) that you understand the code that you have written. You should not document the code line-by-line, but you could refer back to the code if so desired. Your written submission should also describe accurately what the problem is you are trying to solve.

Grading and Grading Requirements

Your application meet one of the following requirements, and code length should be estimated using the provided tool (see below): your code should be at least 300 lines (in which case the code will be worth 40% of the grade, with the written being 60%); or, your code should be at least 600 lines (in which case the code will be worth 50% of the grade, with the written being 50%); or, your code should be at least 1000 lines (in which case the code will be worth 60% of the grade, with the written being 40%).

For the purpose of this assignment, a line of code is considered any line that contains code and is not a line with only a brace on it. Blank lines, comments and lines with only braces should not be counted. A small tool will be provided to count an estimated number of lines.

The code portion of the submission will be evaluated on how well it solves the problem (IE, is the application usable), how well written the code is (including comments), and how creative it is, at a ratio of 3:2:1 of the marks. The written portion will be evaluated on how well it explains the code, and how well it describes the task being completed, at a ratio of 2:1 of the mark. Only a single overall mark out of 100 will be given for each portion, which will then be added together using the percentages above. Written feedback explaining the grade will be provided, and students will be given an opportunity to rebut their mark.

The submission deadline is 23:59 on Friday 8 October 2021, but late submissions will be accepted without penalty until 23:59 on 24 October 2021.