

Exercise 6 – January 7th, 2016 **Patterns, Build Systems, Debugging**

Part 1 – UI patterns (2 pt)

For 2 different UI patterns (either from the lecture or the book), find two examples each from modern software (e.g. mobile apps, web applications, ...). Create a PDF file with screenshots and a brief comment on the pattern.

Part 2 – CMake (2 pt)

Create a CMake build file for your converter project. Take care to also include tests. Some tutorial resources to get you started:

- <http://derekmolloy.ie/hello-world-introductions-to-cmake/> (a CMake tutorial covering multi-directory projects)
- <https://www.johnlamp.net/cmake-tutorial-1-getting-started.html> (a CMake tutorial covering the built-in test facilities)

Part 3 – Debugging (4 pt)

A C++ program implementing a linked list is provided in Moodle (`debug_me.cc`). Compile this program with debug information (e.g. using the `-ggdb` switch for `gcc`) and test it. Locate and fix four bugs in this program using a debugger. Write a short document describing the bugs and the process you used to find them.

Deliverable

Submit the CMake file for part 2 via GitHub, and a PDF file with the results of parts 1 and 3 via Moodle by Thursday, January 21st, 2016, 23:55. Include the following information:

- Full name and student number of each member
- Number of the exercise