Report for C1 Research Computing Coursework

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0.1 Short Introduction

In this report, an overview of the developping process of a python sudoku solver is given. The aim is to detail the software development of the solver, delving into the experimentation as well as how the code was improved, beyond it functioning as intended. The solver relies on a non-naïve backtracking algorithm. First covered, will be a rational of the choice of solving algorithm and the prototyping of said solver. Then, a larger section will describe the actual development of the code, what issues were encountered and how they were solved. This will include profiling, after the solver is finished to deal with any performance bottlenecks. Beyond the development of the solver, the report will also cover the validation and unit testing of the code, which ensures the code is robust. Finally, the report will cover the packaging of the code and the usability of the solver.

0.2 Selection of Solution Algorithm and Prototyping

0.3 Development, Experimentation and Profiling

0.4 Validation, Unit Tests and CI set up

0.5 Packaging and Usability

0.6 Summary