

# CSC 350 Project 2 Proposal

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## Group Members

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The topic of our project will be the emulation of the Intel 4004 microprocessor. We intend to write emulation software for this architecture that will run any valid assembled program. We will also write three to four assembly programs that showcase the abilities of the emulator by performing interesting tasks involving arithmetic and memory manipulation. The emulator will be written in C and will feature a command line interface that allows a pre-assembled program to be executed and the resulting memory to be dumped to a file for inspection and interpretation. The demo programs will be written in the 4004 instruction set and assembled using existing assemblers available online. The deliverables will be the full source code for the emulator, a user guide that includes instructions and examples, three to four example assembly programs and their assembled binaries, and a report detailing the design and implementation of the emulator. Trevor Harness and Akash Charitar will develop the emulator, Erik Yu will write the demo assembly programs, and Alwien Dippenaar will write the project report.