Lab s1 2023.

For this lab, you will be writing a functional simulator of a subset of MIPS.
Please see the lab handout for details.

/* Files */

1. "src/" subdirectory

- The shell: "shell.h", "shell.c" (DO NOT MODIFY)
- The simulator skeleton: "sim.c" (MODIFY)

2. "inputs/" subdirectory

- Test inputs for the simulator (MIPS assembly code): "*.s"
- MIPS assembler/hexdump (assembly code -> machine code -> hexdump): "asm2hex"

/* Instructions */

1. Modify "sim.c" to implement the MIPS instruction set specified in the lab
   handout. Run "make" to compile the simulator.

$ cd src/
$ make

You should now have an executable file named "sim".

2. Use "asm2hex" to convert the test inputs (".*s")* into hexdumps of assembled
   machine code (".x").

$ cd inputs/
$ ./asm2hex addiu.s

You should now have a hexdump of the assembled machine code "addiu.x". Repeat
this step for the rest of the test inputs.

3. Run the hexdump in the simulator.

$ src/sim inputs/addiu.x

> MIPS Simulator
>
> Read 7 words from program into memory.
>
> MIPS-SIM> go
>
> Simulating...

Right now, the simulator will become unresponsive because it has not been
implemented yet (that is your job!). Press Control+C to exit the simulator.