ModelSim Simulating and Lessons Learned

1. **Download and install ModelSim** for Students (free). During installation (Windows) there will be a prompt about adding ModelSim to your **PATH variable**, make sure that box is checked and continue. For best results, **install ModelSim in a path that does not contain spaces**. Open ModelSim for the first time, then **register** with an email to receive a **product key** that activates ModelSim.
2. Using the command line, navigate to the directory of a simulator. The path of the simulator should not have any spaces in it either!
   1. You could use ModelSim GUI to edit, compile, and simulate the files but the output is not able to be piped to a text file, making it very difficult to copy for analysis
3. ***vlib work*** to create the work design library for the first time. This step needs to be done any time the simulator directory is copied or moved.
4. ***vlog -mfcu <globals.sv> \*.sv*** to compile. In our lab, globals.sv is typically named “names\_IX.sv”, where X is a number between 1 and 5. This file contains global variable definitions.
5. ***vsim -c -do "run -all" work.top > output.txt*** to run the simulation and pipe the data to a text output file. This output file is the one that gets parsed by the python parser so that it may be imported into Excel.