A number of blue Raspberry PI computers Model 3 B+ are located at workstations around the lab room. We use these computers strictly for our software development. Do not open them nor connect to their GPIO ports. Each time you come to lab for project 1 use a station and computer that is not occupied. Bring a flash drive to plug into the computer to save and backup your project work, do not leave any of your work on the computer.

The keyboard layout for these computers must be United States US English otherwise you get characters you do not want when you program which cause syntax errors.

An active Ethernet cable is available at the front of the lab room between the two Whiteboards, use this connection with the Raspberry PI computer to install code editors and programming tools and to update and upgrade the Raspbian OS and or any installed apps, whenever you deem necessary. Please share this Ethernet connection. This station is also reserved for the teaching assistant.

Research http://infocenter.arm.com/help/index.jsp for help with the ARM processor.
Research https://www.raspberrypi.org for help with the Raspberry PI computer.
Research https://gcc.gnu.org/onlinedocs/ for helpful GCC manuals.
Research ftp://ftp.gnu.org/old-gnu/Manuals/gas/html_node/as_toc.html when using GNU Assembler.
Research https://www.gnu.org/software/gdb/ when using the GNU Debugger.

Work and demo Project 1 individually.

Each student needs to write a formal report for Project 1 and use the given formal report template .odt file.

The formal report .odt template is written using the LibreOffice word processor.

Simply fill in the given report template .odt file with your lab work, proof the .odt file for correctness then convert to a .pdf file, proof read the .pdf file for correctness then submit via BlackBoard under Assignments.

Look at the given ‘Report Template.pdf’, this will help show you how the report should look excluding your work.

My submitted project 1 file would be named as RockeyP1.pdf so name your file in the same manner ‘*lastname*P1.pdf’

I use LibreOffice and OpenOffice so feel free to use these Office apps for your lab work too.

When writing the formal report, follow the report do’s and don’t document.

The Raspbian OS installs with the GNU C Compiler, GNU Assembler or GAS, and the GNU Debugger or GDB. Research and use GCC, GAS, and GDB to complete Project 1 and its Demo.

If any lab equipment stops working then email me right away, let me know.

All things in the lab stay in the lab, do not remove anything from the lab.

No food allowed in the lab but a drink with a no-spill or twist on cap is allowed.