

Table 1: Lab 1 procedures

Why?	What?	How?
To protect our real computer from being altered we do labwork in a virtual machine	QEMU (you could other virtualizers such as Virtual Box)	Windows: double-click debianVM.bat file Other host OS: see notes in Piazza
Manage the virtual computer resources (memory, hard drive, CPU, mouse, keyboard, monitor)	Linux (Debian) Operating System (OS)	OS is booted up by QEMU
Send commands to Linux	BASH (Bourne Again SHell	Use (fluxbox) window manager context menu (right click on desktop) and select Applications/XTerm
Template of a working program with correct syntax	FC (function creator perl script)	run <code>/home/debian/fc</code> at command prompt in the working directory (lab1)
Edit source code and documentation files	geany	Type geany & at prompt
compile/link code	g++	fc will do first one for us automatically
Build program (manage compiling/linking)	Make	Put commands in Makefile (then run make from geany build menu or directly on command line
Document program	pdflatex	from geany build menu (Latex → PDF
Graph the function	gnuplot	Use gnuplottex package
Download PDF and TGZ files to host	tar and host browser	tar zcvf lab1.tgz lab1 from the home directory use address localhost:8080 in host browser to see/download files
Submit to Canvas	Canvas	Upload files to lab1 assignment then submit them

Table 2: Useful BASH commands

Why?	What?	How?
List files and directories	ls	ls -l
Create a new directory	mkdir	mkdir <i>lab1</i>
Change to a new working directory	cd	cd <i>lab1</i>
Finding a file (e.g. <i>fc</i>)	find	sudo find / - name <i>fc</i>
Run the <i>fc</i> script	<i>fc</i>	/home/debian/ <i>fc</i>