

Laboratory Environment

- ✓ This course will use Ubuntu distribution of Linux as the Operating System for all the exercises
- ✓ The tool chain used will be GNU 'gcc' suite of tools
- ✓ Editor recommended is 'gedit' which is available in these systems
- ✓ 'terminal' program is used to run 'gcc' and the executable code

Basic Instructions to use the tools

1. If the system is not powered on, please turn the system ON by pressing the power button on the PC.
2. Check if the monitor needs to be turned on as well
3. If presented with a boot time option, please select 'Ubuntu' in the list
4. Once Ubuntu has booted up, click on the program selection icon on the bottom left of the screen (a small square with dots).
5. Type 'terminal' in the search bar at the top
6. The icon for the 'terminal' program will appear below, and click the same to start the terminal program
7. The terminal program will typically be a black coloured window with a prompt to type commands.
8. Type 'gedit <prog_name.c>' on the terminal window.
9. This will open the gedit window, which can be used to type the program. Note that the name of the file you specified (prog_name.c) will appear on the top of the window. If there is a '*' character before the file name, it indicates that the file has not been saved yet. Please remember to save the file once you have finished typing the program.
10. You can close the 'gedit' window to get back to the terminal prompt.
11. Type 'gcc <prog_name.c>' and press enter.

12. If there are no errors/warnings, you will see the command prompt again. Else, 'gcc' will print the errors and warnings with line numbers to help you fix the errors.

13. If there are errors/warnings, fix them and re-run 'gcc' till you get a clean compile.

14. 'gcc' by default will save the executable code in a file by name 'a.out'.

15. To run your program and check the output, please type './a.out' and press enter. This will make the OS run the code and you can check the output.

16. If the code does not give the desired output, or fails with some errors, repeat the edit-compile-test cycle by going back and editing the program using 'gedit'.

For example, if you want to name the file as lab1.c, the following are the commands

```
geditlab1.c
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gcc lab1.c
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./a.out
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