# CS236-Lab 2024-2 Lab 1 Instructions

## Instructions to open Terminal:

#### Method 1: Using a Keyboard Shortcut

1. Press Ctrl + Alt + T on your keyboard to open a terminal window.

#### **Method 2: Using the Application Menu**

- 1. Click the "Activities" button or press the Windows key to open the search bar.
- 2. Type "Terminal" in the search bar.
- 3. Click on the "Terminal" icon from the search results to open it.

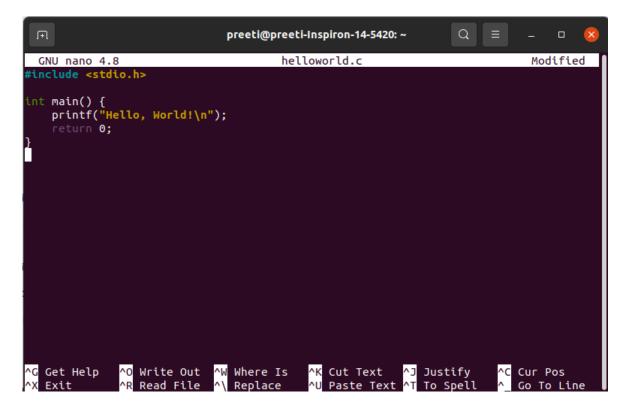
#### Method 3: Using the Right-Click Menu

- 1. **Right-click** on the desktop or inside any folder.
- 2. Select "Open Terminal" or "Open in Terminal" from the menu.

### • Instructions to write, compile, and run a C program:

#### **Step 1: Write Your C Program**

- 1. Open your terminal.
- 2. Use a text editor like **nano**, **vim**, or **gedit** to create a new C file using the command: "nano helloworld.c" or "vim helloworld.c" or "gedit helloworld.c"
- 3. Write your C code in the file and save it. For example:



4. Save and exit the editor (Ctrl + X in nano or :wq in vim).

#### **Step 2: Compile the C Program**

- 1. In the terminal, use the **gcc** compiler to compile the C program using the command: "gcc helloworld.c -o helloworld" where, gcc is the GNU C Compiler, -o helloworld specifies the output file name (you can change it) and helloworld.c is the name of your source file.
- 2. You can also save the compiled executable using its default name a.out by just compiling without the "-o" option: "gcc helloworld.c"

#### **Step 3: Run the Compiled Program**

- 1. To run the compiled program, type the command: "./helloworld"
- 2. If you use the default a.out as the executable name, type: "./a.out"

#### • Instructions to untar the compressed file:

- 1. Open your terminal.
- 2. Navigate to the directory where your .tar or .tar.gz file is located:
- 3. Use the following command to extract a .tar file: "tar -xzvf filename.tar.gz"

#### Instructions to use man pages:

**[man** (short for manual) pages provide detailed documentation for commands, functions, system calls, and other aspects of the Linux operating system.]

- 1. Open your terminal.
- 2. To view the man page for a specific command, type: "man command". Ex: man ls
- 3. **Scroll Down:** Press the **Spacebar** or **Down Arrow** key to scroll down one screen at a time
- 4. **Scroll Up:** Press the **Up Arrow** key to scroll up one line at a time, or press "b" to scroll up one screen.
- 5. **Search Within the Page:** Press "/" followed by the search term to find specific text within the **man** page. Press "n" to go to the next occurrence or "N" to go to the previous one.
- 6. Press "g" to go to the beginning of the page. Press "G" to go to the end of the page.
- 7. To exit the "man" page and return to the terminal, press "q".

# • Practice to use man pages to search the description (usage and different options available) of the following:

- 1. ps
- 2. top
- 3. cd
- 4. htop
- 5. pmap
- 6. pstree
- 7. proc
- 8. ls
- 9. strace
- 10. fork
- 11. wait
- 12. exec