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Lab4-CS470

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* Instructions for Running a C Program in Ubuntu.

Create a file with gedit <filename>.c   
Compile the code with gcc <filename>.c -o <process name>  
and run the file with ./<process name>

* In C, how can I make a thread?

Libraries such as POSIX can be implemented to create threads.  
1. Define a function to run in the new thread.

2. Create pthread\_t to store the thread ID.

3. Call pthread\_create() function, passing in:

- pthread\_t address

- thread attributes (default is NULL)

- function to run in thread

- any args to pass to function

4. Continue running code in main

5. pthread\_join() after everything

* In Linux, How Do You Create Hard Links and Soft Links?

Hard Links:  
1. Open a terminal window.  
2. Navigate to the directory where the source file is located.  
3. Use ln <file>.txt <hardlinkname>.txt  
4. Verify link with ls

Soft Links:  
1. Open a terminal window.  
2. Navigate to the directory where the source file is located.  
3. Use ln -s <file>.txt <hardlinkname>.txt

* Linux System Calls for Using Files and Directories.
* Explanation of open(), read(), write(), and close() system calls

Open(): Open a file, returns a file descriptor. Takes two args: file name and flags

Read(): Read a file.

Write(): Write data to a file. Takes three args (file descriptor, buffer with write data, number of bytes to write)

Close(): Close a file.





