CO327: Operating Systems
Simple Shell

Aim: The aim of this laboratory is to use system calls and create a simple shell application.

Task: Your task is to implement a simple shell program that would;

- prompt the user to enter a command
- *process the command (make sure to skip white spaces etc)*
- find out if the command is there in /bin
- if so, execute it as a child process
- wait for the next command

Removing white spaces etc. from the user input is not a requirement, but would get you additional marks. We will test the shell with simple well written commands.

Before running the command, the shell should test if the command (the executable with that name) is available in /bin. If so, the shell should *fork* itself and the child should replace its execution image with the said command. Shell should only ask for the next input only when the child exits.

Useful System Calls: you may find the following system calls to be useful. You can type $ man 2 <system call>, on a Linux shell to get details about the system call.

- *fork*
- *exec*
- *waitpid*
- *access*

What to submit: *Submit your code, as a single file to LMS. If you have more than one file submit a zip file which contains all. Deadline 02/07/2021 @2300hr*