

## Introduction

In this project you have to implement a UNIX shell using C. Your shell will be able to run basic linux commands, I/O redirections and handle errors.

## Specifications

The shell must implement the following core features:

1. Display a command prompt (e.g., `sh>` ) and read user input.
2. Parse and execute system commands.  
For example, running `pwd` will output the absolute path of the directory that your shell is working on.  
Hint: Use `fork` and `exec` system call
3. Support input (`<`) and output (`>` and `>>`) redirection.  
Hint: Use `dup` and `dup2`
4. Support command piping (`|`). Your shell should support any number of piping.  
For example, `command1 | command2 | command3 | command4` should work
5. Support multiple commands in-line separated by semicolon (`;`)
6. Support multiple command in sequence using (`&&`)
7. Support history of executed commands
8. Support signal handling. Pressing `CTRL+C` should terminate the currently running command inside your shell, not your shell.  
Hint: Use `signal` and `sigaction`