



Shell Lab Report

Operating Systems

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Overview

A shell is simply a program that conveniently allows you to run other programs. Here is a simple Unix-like shell program.

Overall Organization & Major Functions

1. `read_line()`: Read command line and add `'\0'` to convert it to C string.
2. `split_line(cmd_line)`: Split command line into arguments and check for background processes flag.
3. `execute_cmd(args)`: Executing command arguments by forking child process.

Sample Runs

```
>> ls
CMakeCache.txt  cmake_install.cmake  Makefile  shell.cbp
CMakeFiles  logger.log          shell
>> ls -l
total 72
-rw-rw-r-- 1 elsayed elsayed 23112 Nov  8 15:07 CMakeCache.txt
drwxrwxr-x 5 elsayed elsayed  4096 Nov  9 23:01 CMakeFiles
-rw-rw-r-- 1 elsayed elsayed  1535 Nov  8 15:07 cmake_install.cmake
-rw-rw-r-- 1 elsayed elsayed    0 Nov  9 23:01 logger.log
-rw-rw-r-- 1 elsayed elsayed  5282 Nov  8 15:07 Makefile
-rwxrwxr-x 1 elsayed elsayed 21368 Nov  9 22:26 shell
-rw-rw-r-- 1 elsayed elsayed  5104 Nov  8 15:07 shell.cbp
>> ls -r
shell.cbp  Makefile  cmake_install.cmake  CMakeCache.txt
shell      logger.log  CMakeFiles
>> |
```



