

# UNIX Shell and History Feature

**Programming Project #2**

**Due Date: Sunday 13/3/2018**

## Objectives

The objectives of this programming assignment are:

- 1- To give the students the basic knowledge required to construct a basic shell in an OS.
- 2- To let the students be familiar with the concepts of process creation, and the relationship between the parent process and the child process.

## Project Description

The project is divided into two parts. The first part of the project consists of designing a C program that serves as a shell interface. The main purpose of this shell interface is to accept user commands and then execute each command in a separate process. In the second part, you will modify the shell interface program so that it provides a history feature. Such step allows the user to retrieve the most recent commands and execute them instead of rewriting them.

The actual description of the project and the steps you need to follow are located on page 157 through page 159 in the book under the name “Project 1—UNIX Shell and History Feature”

## To Do

You should follow the instructions in the project description carefully. Report everything you are doing. You could ask your instructor or your teaching assistant for help.

## Tips

You need to have an active installation of Linux on your system to be able to complete the project. You could use any distribution of Linux. The most popular distributions are Debian, Ubuntu and Fedora. In addition, you can install Linux inside a virtual machine instead of your actual computer. For creating and running the virtual machine, you could use VirtualBox or VMWare Player.

## Project Report

A project report is due on 13/3/2018. Make sure to include in your report your steps, screen shots of the required outputs, and key points you learned from the project.

## Submission

On 13/3/2018, the final code that you wrote and the report mentioned earlier should be submitted. Follow the following instructions carefully, otherwise your submission will not be accepted:

- Put everything including the report in a zip file and name it "CSE325\_SP18\_Proj2\_YOURNAME.zip", where YOURNAME is your name.
- Attach the zip file into an email message which have the subject "CSE325 SP18 Project2" exactly.
- In the body of the message include your full name and bench number. You could also add any notes or special instructions.
- Send the message to the email address of your teaching assistant [s.khalil9191@gmail.com](mailto:s.khalil9191@gmail.com)

## Important Notes:

This project must be done individually; any act of plagiarism will be penalized and reported.