Advanced Data Structures and System Programming Lab

Lab Assignment Week #1.2

1. Write a program in C to demonstrate the basic usage of fork() system call. In the parent process display its process id, its child's process id and its owner id and in the child process display its process id and its parent's process id. Use wait() system call in parent process's block to wait for the child process to exit.

2. Write a C program to create a child process using fork() system call. Also use wait() system call in parent process such that it gets the return status of its child, return status must be printed on console.
    Hint: Use (i) WIFEXITED
       (ii) WEXITSTATUS
       (iii) WIFSIGNALED
    POSIX macros to print the exit status of child process.

3. Use fork-exec combination to create a child process. The child process invoke a new program "firefox" using "exec" while parent process continue to exectute *ls* command with command-line argument *-l* in current directory.