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Operating Systems- Assignment 1

Process creation and termination system calls

The header files i have used in the c file are;
1.stdio.h
2.stdlib
3.unistd.h
4.sys/types.h
5.sys/stst.hg
6.sys/wait.h
7.fcntl.h
8.string.h
We can use different kind of system calls to parse a CSV file which containing dummy grades for the students randomly given 2 sections. Here we can use fork system call to create a child process that computes the average for the section A students and also receives both child process and parent process. The parent process waits till the child process to exit and start calculating average for section B students. Here we can use open,close,read and write system calls.
In the main method using fork system call spawned a child process which used to open call to open student_record.csv file which is given to parse.

System calls used:

A. fork()
   This is used to spawn a child's process running at the same time as the parent process. This fork system call takes no parameters and returns an integer value which indicates the error when it is negative, indicates subprocess when zero and indicates parent process when positive.

B. waitpid()

This suspends the execution of the current process until a specified child has different state. This accepts a pid as arguments.

C. exit()

This system call used to terminate a process. This Exit the child process after execution with value zero in which if shown error we use exit(1)

D. open()

This is used to open a file to read and write or both which accepts only string as path flags .This makes a new entry in the table and returns it.

E.write()

This is used to write on a successfully opened file which is present at the moment in entry table.

F.read()

This is used to read a file which is opened successfully and [resent in the table.

G.close()

Thus is used toclose the file by destroying the file table and setting the entry to null.