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CS 392 HW 3

Answers to Questions:

a). Why are 'exit' and 'cd' handled as built-in commands and no child processes are forked? What would happen if you forked children for these commands?

- cd:

Forking and calling 'cd' on the child would have *its* directory changed but ***not the parent***.

Forking on the parent would have its directory changed as well as all inheriting children. Thus the purpose of 'cd'-ing the parent is so that all forked processes spawn with the current directory.

- exit

- on the child would kill the child instantly and nothing would happen to the parent

- on the parent would kill the parent process, as intended, actually ending the shell.

b). Why should you use killpg(getpid(), SIGTERM); before main() ends?

killpg sends the SIGTERM termination signal to the entire process group (hence pg). Therefore it prevents any potentially lingering processes from remaining after the spawning (parent) process terminates.