Lab Assignment 1: System Calls Writeup

defs.h

- Modified exit definition in line 107 to take in int parameter
- Modified wait definition in line 120 to take in *int_parameter
- Added waitpid definition in line 123 that takes in int and *int parameters

proc.c

- Modified exit system call signature to void exit(int status)
 - Assigned curpoc->status = status in line 264 (status from PCB)
- Modified wait system call signature to int wait(int *status)
 - Checked if PBC status was nonzero then assigned the status pointer in line 292
- Added waitpid system call as int waitpid(int pid, int *status, int options)
 - Process is similar to wait but makes sure process pid != given pid to continue (line 331)
 - Implemented WNOHANG option to waitpid in line 352

sysproc.c

- Modified system call functions for sys_exit to take in status argument
- Modified system call function for sys wait to take in *status argument
- Added system call function for sys_waitpid to take in pid, *status & option

proc.h

Added int status variable in process control block in line 52

user.h

- Modified exit system call to take in int parameter (line 6)
- Modified wait system call to take in int* parameter (line 7)
- Added waitpid system call to take in int and int* parameters (line 8)

• lab1_test.c

New file added for testing exit, wait, and waitpid

Makefile

- Added -gdwarf-2 to line 79 and commented out some UPROGS tests for smoother testing
- Added the lab1 test\ executable to allow testing for our functions to line 183

• syscall.c, syscall.h, usys.S

- Added waitpid system call declarations
- cat.c, echo.c, forktest.c, grep.c, init.c, kill.c, ln.c, ls.c, mkdir.c, rm.c, sh.c, stressfs.c, trap.c, usertests.c, wc.c, zombie.c
 - Modified the original exit(); to take in int parameter 0 => exit(0);