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Team 06

Section 021

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Lab Writeup #1

File Changed

- **proc.h**
 - Added on a data variable status inside the process struct
- **user.h**
 - Modified function def exit() and wait() by adding parameters of status and status pointer respectively
 - Added function def for waitpid() and its needed parameters of pid, status pointer, and options
- **defs.h**
 - Added status parameter for exit function
 - Introduced status pointer parameter for wait function
 - Defined waitpid and its corresponding three parameters
- **syscall.h**
 - Defined waitpid and added an additional call “#define SYS_waitpid 22”
- **sysproc.c**
 - Modified system call for exit function by adding “argint(0, &status);” to check for validity, instantiated a status variable, and added argument for exit call
 - Modified system call for wait function by instantiating the status pointer and adding “argptr(0, (char**)&s, sizeof(int*));” for making sure pointer is proper
 - Added the system call for processes to function waitpid(), and defined the parameters waitpid asks for and do checks to make sure they are proper. Finally returning the waitpid call with proper arguments
- **syscall.c**
 - Defined waitpid to system call and added in to the system call array
- **proc.c**
 - Modified exit function and added parameter along with a line of code in writing the status into the process struct member
 - Modified wait function and added an if statement to check if the passed in status is null or valid. If it is null we just ignore it. If it is a valid value, then we set the process value to the passed in status value.
 - Modified waitpid function and added parameter pidmatch to look for a specific pid. If the pid matches, then the function will act like wait(). If the pid does not match, then it is being terminated and returned -1.
 - Added if statements to check the value of options. If the passed in option is 1 and the status value is valid, then it calls the WNOHANG and returns the status number immediately.
- **usys.S**
 - Added SYSCALL(waitpid) as the bottom of the file
- **Makefile**
 - Added _lab1_test\ to make file for the given test file

- 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, uc.c, zombie.c
 - Modified function call from exit(); to exit(0);
- sh.c, stressfs.c, usertests.c, forktest.c, init.c
 - Modified function call from wait(); to wait(0);
- alias.txt
 - Added in the proper file for turn in