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Team 06

Lab Writeup #1

Files Changed

- `proc.h`
 - Added on a data variable status inside the process struct
- `user.h`
 - Modified function `exit()` and `wait()` by adding new parameters
 - Added function `waitpid()` and its 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 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()`. Otherwise, it is being terminated and returns -1. We also 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