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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 child process is still running, then it calls the WNOHANG and returns 0 for the pid.
- 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