

Student 1 - kmitt006

Student 2 - zwen012

Lab 1 Writeup

- `usys.S`
 - Added a `SYSCALL(waitpid)` as that's a new system call
- `syscall.h`
 - Added a `SYS_waitpid` with a call number of 22 as it's a new system call
- `syscall.c`
 - Created a `sys_waitpid` function call that is called with there's a system call to `waitpid`
 - Set up the `sys_waitpid` function to be called with `SYS_waitpid` is called
- `sysproc.c`
 - Changed `sys_exit` so it calls our updated `exit` function, in addition `sys_exit` now has some argument cleaning(checks for invalid arguments)
 - Changed `sys_wait` so it calls our updated `wait` function, in addition `sys_wait` now has some argument cleaning(checks for invalid arguments)
 - Created the definition of `sys_waitpid` which calls our new `waitpid` function, and has argument cleaning(checks for invalid arguments)
- `proc.c`
 - Adjusted the `exit` function so that when `status` is passed in, the current process's status is set to the passed in parameter
 - Adjusted the `wait` function so that when `status` is passed in, it checks to see if the pointer passed in exists, if so, it assigns the process's status(which is the child process) to the argument passed in.
 - Created the `waitpid` function, which does the same thing as `wait`, except now, we have to check to see if the process that is passed in, is the process we're looking for, this means that now, we need to check to see if the process we find in the table is the process we're looking for, if so we should just stop. In addition, we have a semi-implemented `WNOHANG` working.
- `proc.h`
 - Had to add a `status` variable to the `proc` object so I could do stuff with `status` in `exit`, `wait`, and `waitpid`
- `defs.h`
 - Modified the declaration for the updated `exit` and `wait` function
 - Added a declaration for the `waitpid` function
- `user.h`
 - Modified the declaration for the updated `exit` and `wait` function
 - Added a declaration for the `waitpid` function
- `test_lab1.c`
 - This is just the TA test code
- Additional Notes:
 - We modified every single call of `exit()` and `wait()` to `exit(0)` and `wait(0)` when necessary