Diane Shan - dshan017
Brent Sakihara - bsaki001
Team #16

# Lab 3 - Writeup

Files Changed

- proc.h
  - Added int pages to keep track of the number of pages in the stack
- syscall.c
  - Changed sz to KERNBASE - 1 in fetchint, fetchstr, and argptr
- proc.c
  - Changed fork function to copy pages from parent to child
- exec.c
  - Change the parameters for call to allocuvm into allocuvm(pgdir, (KERNBASE - 1) - PGSIZE, KERNBASE - 1) so that the stack now has room to grow
  - Initialize stack pointer (sp) to KERNBASE - 1 which is the address of the top word of the stack so sp = KERNBASE - 1
  - Initialize curproc->pages = 1 so stack starts out with one page
- vm.c
  - Added another loop in copyuvm to iterate over the stack pages and read the page table to get the PTE for the page, allocate new physical frames, copies the page from parent memory to the new page, and maps this new copy to the child address space by adding a PTE to its page table
- trap.c
  - Added case for T_PGFLT which accounts for if there is a page fault so that we can check the address that caused the page fault when a page fault occurs
- Makefile
  - Added “lab3” to UPROGS commands so it could be executed from inside the shell of xv6
- lab3.c
  - Added given lab 3 test file to test changing the memory layout and growing the stack