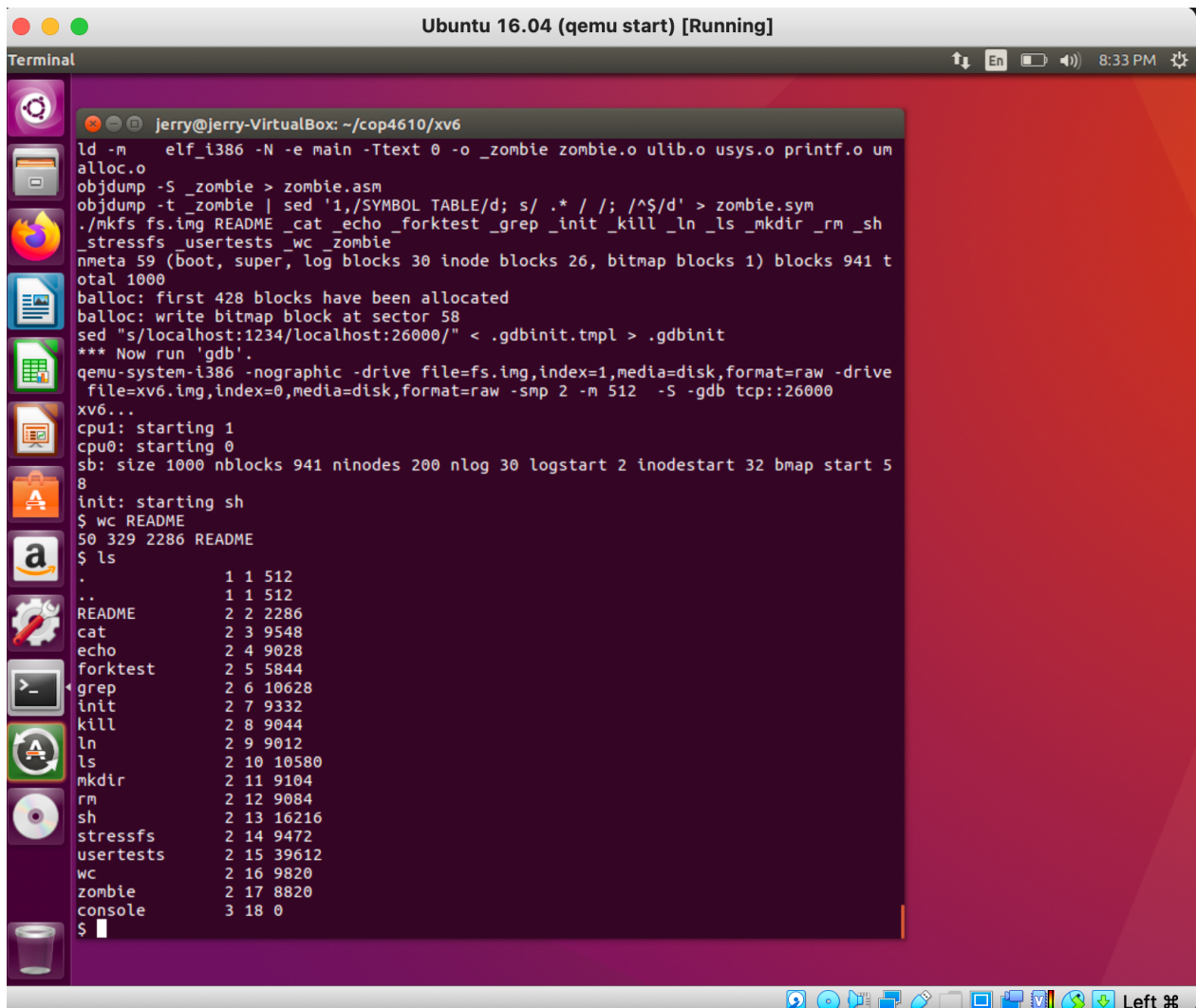


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Assignment 2

Part 1: Xv6 on QEMU

Testing ls command on xv6 running on ubuntu 16.04 virtual machine



The screenshot shows a terminal window titled "Ubuntu 16.04 (qemu start) [Running]". The user is in a directory named ~/cop4610/xv6. The terminal output shows the compilation of xv6 using the ld linker, the creation of a disk image fs.img, and the execution of the xv6 kernel on a QEMU virtual machine. The kernel boots up and the user runs the ls command, which lists the contents of the current directory.

```
jerry@jerry-VirtualBox: ~/cop4610/xv6
ld -m elf_i386 -N -e main -Ttext 0 -o _zombie zombie.o ulib.o usys.o printf.o um
alloc.o
objdump -S _zombie > zombie.asm
objdump -t _zombie | sed '1, /SYMBOL TABLE/d; s/ .* / /; /^$/d' > zombie.sym
./mkfs fs.img README_cat_echo_forktest_grep_init_kill_ln_ls_mkdir_rm_sh
_stressfs_usertests_wc_zombie
nmeta 59 (boot, super, log blocks 30 inode blocks 26, bitmap blocks 1) blocks 941 t
otal 1000
ballocc: first 428 blocks have been allocated
ballocc: write bitmap block at sector 58
sed "s/localhost:1234/localhost:26000/" < .gdbinit.tmpl > .gdbinit
*** Now run 'gdb'.
qemu-system-i386 -nographic -drive file=fs.img,index=1,media=disk,format=raw -drive
file=xv6.img,index=0,media=disk,format=raw -smp 2 -m 512 -S -gdb tcp::26000
xv6...
cpu1: starting 1
cpu0: starting 0
sb: size 1000 nblocks 941 ninodes 200 nlog 30 logstart 2 inodestart 32 bmap start 5
8
init: starting sh
$ wc README
50 329 2286 README
$ ls
.                1 1 512
..               1 1 512
README          2 2 2286
cat              2 3 9548
echo            2 4 9028
forktest        2 5 5844
grep             2 6 10628
init            2 7 9332
kill            2 8 9044
ln              2 9 9012
ls              2 10 10580
mkdir           2 11 9104
rm              2 12 9084
sh              2 13 16216
stressfs        2 14 9472
usertests       2 15 39612
wc              2 16 9820
zombie          2 17 8820
console         3 18 0
$
```