OS lab 1

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1. ## Sleep

which does the same.

2. ## Sixfive

3. MEMDUMP

```
qemu-system-riscv64 -machine virt -bios none -kernel kernel/kernel -m 128M -smp 3 -nographic -global virtio-mmio.force-l
egacy=false -drive file=fs.img,if=none,format=raw,id=x0 -device virtio-blk-device,drive=x0,bus=virtio-mmio-bus.0

xv6 kernel is booting

hart 1 starting
hart 2 starting
init: starting sh
$ memdump
Example 1:
61810
2025
Example 2:
a string
Example 3:
another
Example 4:
B50
1819438967
100
z
xyzzy
Example 5:
hello
w
o
r
l
d
$
```

Now make should succeed and the autograder will accept your memdump outputs

4. FIND

```
nmeta 47 (boot, super, log blocks 31, inode blocks 13, bi
balloc: first 1102 blocks have been allocated
balloc: write bitmap block at sector 46
qemu-system-riscv64 -machine virt -bios none -kernel kern
egacy=false -drive file=fs.img,if=none,format=raw,id=x0 -

xv6 kernel is booting

hart 2 starting
hart 1 starting
init: starting sh
$ sleep 10
$ sleep 20
$ sixfive
usage: sixfive file1 [file2 ...]
$ sixfive sixfive.txt
5
100
18
6
$ echo > b
$ mkdir a
$ echo > a/b
$ mkdir a/aa
$ echo > a/aa/b
$ find . b
./b
./a/b
./a/aa/b
$
```

5. Exec

```
balloc: write bitmap block at sector 46
qemu-system-riscv64 -machine virt -bios none
egacy=false -drive file=fs.img,if=none,forma

xv6 kernel is booting

hart 2 starting
hart 1 starting
init: starting sh
$ sleep 10
$ sleep 20
$ sixfive
usage: sixfive file1 [file2 ...]
$ sixfive sixfive.txt
5
100
18
6
$ echo > b
$ mkdir a
$ echo > a/b
$ mkdir a/aa
$ echo > a/aa/b
$ find . b
./b
./a/b
./a/aa/b
$ find . wc -exec echo hi
hi ./wc
$
```

- kernel/param.h declares MAXARG, which
To test your solution for find, run the shell sc

**MAKE GRADE

```
riscv64-linux-gnu-objdump -S kernel/kernel > kernel/kernel.asm
riscv64-linux-gnu-objdump -t kernel/kernel | sed '1,/SYMBOL TABLE/d; s/ .* / /; /^$/d' > kernel/kernel.sym
make[1]: Leaving directory '/home/areeeesha/xv6-labs-2025'
== Test sleep, no arguments ==
$ make qemu-gdb
sleep, no arguments: OK (4.9s)
== Test sleep, returns ==
$ make qemu-gdb
sleep, returns: OK (1.6s)
== Test sleep, makes syscall ==
$ make qemu-gdb
sleep, makes syscall: OK (1.0s)
== Test sixfive_test ==
$ make qemu-gdb
sixfive_test: OK (1.2s)
== Test sixfive_readme ==
$ make qemu-gdb
sixfive_readme: OK (1.7s)
== Test sixfive_all ==
$ make qemu-gdb
sixfive_all: OK (1.3s)
== Test memdump, examples ==
$ make qemu-gdb
memdump, examples: OK (1.1s)
    (Old xv6.out.memdump_examples failure log removed)
== Test memdump, format ii, S, p ==
$ make qemu-gdb
memdump, format ii, S, p: OK (1.8s)
== Test find, in current directory ==
$ make qemu-gdb
find, in current directory: OK (1.2s)
== Test find, in sub-directory ==
$ make qemu-gdb
find, in sub-directory: OK (1.2s)
== Test find, recursive ==
$ make qemu-gdb
find, recursive: OK (1.5s)
== Test exec ==
$ make qemu-gdb
exec: OK (1.3s)
```

```
areeeesha@XYZ: ~/xv6-labs-2025
$ make qemu-gdb
find, in sub-directory: OK (1.2s)
== Test find, recursive ==
$ make qemu-gdb
find, recursive: OK (1.5s)
== Test exec ==
$ make qemu-gdb
exec: OK (1.3s)
== Test exec, multiple args ==
$ make qemu-gdb
exec, multiple args: OK (2.0s)
== Test exec, recursive find ==
$ make qemu-gdb
exec, recursive find: OK (1.7s)
== Test time ==
time: FAIL
    Cannot read time.txt
Score: 130/131
make: *** [Makefile:361: grade] Error 1
areeeesha@XYZ:~/xv6-labs-2025$
```