

1. Output of the back trace code:

```
moslimscientist@TheMoslimScientist: ~/Desktop/operating_...  
kernel/entry.o kernel/kalloc.o kernel/string.o kernel/main.o kernel/vm.o kernel/  
proc.o kernel/swtch.o kernel/trampoline.o kernel/trap.o kernel/syscall.o kernel/  
sysproc.o kernel/bio.o kernel/fs.o kernel/log.o kernel/sleeplock.o kernel/file.o  
kernel/pipe.o kernel/exec.o kernel/sysfile.o kernel/kernelvec.o kernel/plic.o k  
ernel/virtio_disk.o kernel/start.o kernel/console.o kernel/printf.o kernel/uart.  
o kernel/spinlock.o  
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  
qemu-system-riscv64 -machine virt -bios none -kernel kernel/kernel -m 128M -smp  
3 -nographic -drive file=fs.img,if=none,format=raw,id=x0 -device virtio-blk-devi  
ce,drive=x0,bus=virtio-mmio-bus.0  
  
xv6 kernel is booting  
  
hart 1 starting  
hart 2 starting  
init: starting sh  
$ bttest  
backtrace:  
0x0000000008000214a  
0x00000000080001fac  
0x00000000080001c96  
$
```