

File Actions Edit View Help

user@user-virtualbox: ~/CS-U...erating-Systems/homework/hw3

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```
user@user-virtualbox:~/CS-UY-3224-Operating-Systems/homework/hw3$ ls
cr.sh lab3_1.c lab3_2a.c lab3_2b.c Makefile
user@user-virtualbox:~/CS-UY-3224-Operating-Systems/homework/hw3$ cat cr.sh
#!/bin/bash
make
dmesg --clear
sudo insmod *.ko
sudo rmmod *.ko
dmesg
user@user-virtualbox:~/CS-UY-3224-Operating-Systems/homework/hw3$ sudo ./cr.sh
make -C /lib/modules/6.8.0-45-generic/build M=/home/user/CS-UY-3224-Operating-Systems/homework/hw3 modules
make[1]: Entering directory '/usr/src/linux-headers-6.8.0-45-generic'
warning: the compiler differs from the one used to build the kernel
The kernel was built by: x86_64-linux-gnu-gcc-12 (Ubuntu 12.3.0-1ubuntu1~22.04) 12.3.0
You are using: gcc-12 (Ubuntu 12.3.0-1ubuntu1~22.04) 12.3.0
CC [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_1.o
MODPOST /home/user/CS-UY-3224-Operating-Systems/homework/hw3/Module.symvers
CC [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_1.mod.o
LD [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_1.ko
BTF [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_1.ko
Skipping BTF generation for /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_1.ko due to unavailability of vmlinux
make[1]: Leaving directory '/usr/src/linux-headers-6.8.0-45-generic'
[ 5929.326941] Hello, world
1
user@user-virtualbox:~/CS-UY-3224-Operating-Systems/homework/hw3$
```



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cr.sh lab3\_1.c lab3\_2a.c lab3\_2b.c Makefile

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#!/bin/bash

make

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sudo insmod \*.ko

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CC [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3\_2a.o

MODPOST /home/user/CS-UY-3224-Operating-Systems/homework/hw3/Module.symvers

CC [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3\_2a.mod.o

LD [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3\_2a.ko

BTF [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3\_2a.ko

Skipping BTF generation for /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3\_2a.ko due to unavailability of vmlinux

make[1]: Leaving directory '/usr/src/linux-headers-6.8.0-45-generic'

[ 6122.756052] 25

user@user-virtualbox:~/CS-UY-3224-Operating-Systems/homework/hw3\$



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You are using: gcc-12 (Ubuntu 12.3.0-1ubuntu1~22.04) 12.3.0
CC [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_2b.o
MODPOST /home/user/CS-UY-3224-Operating-Systems/homework/hw3/Module.symvers
CC [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_2b.mod.o
LD [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_2b.ko
BTF [M] /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_2b.ko
Skipping BTF generation for /home/user/CS-UY-3224-Operating-Systems/homework/hw3/lab3_2b.ko due to unavailability of vmlinux
make[1]: Leaving directory '/usr/src/linux-headers-6.8.0-45-generic'
[ 6181.376789] 25640744
user@user-virtualbox:~/CS-UY-3224-Operating-Systems/homework/hw3$
```