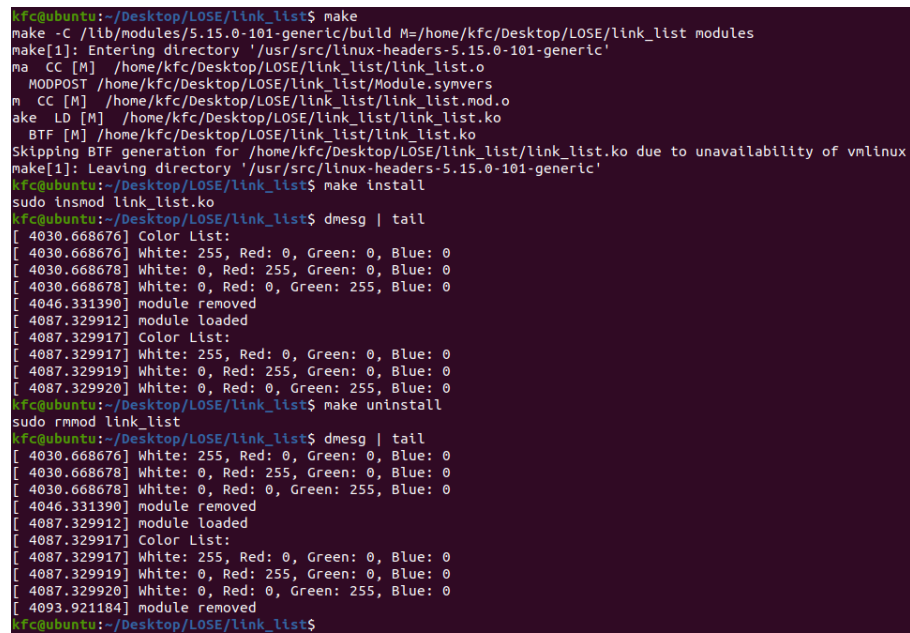# How to use

1. Run `make` to compile the kernel module.
2. Run `make install` to insert the module.
3. Run `make mls` to see if the module is loaded.
4. Run `dmesg` to see the output.
5. Run `make rm` to remove the module.
6. Run `dmesg` to see the output.

Description

As the screenshot shows, the kernel module prints the data in the link list. `dmesg` command is used to verify the information.

Screenshot


```
kfc@ubuntu:~/Desktop/LOSE/link_list$ make
make -C /lib/modules/5.15.0-101-generic/build M=/home/kfc/Desktop/LOSE/link_list modules
make[1]: Entering directory '/usr/src/linux-headers-5.15.0-101-generic'
ma  CC [M]  /home/kfc/Desktop/LOSE/link_list/link_list.o
  MODPOST /home/kfc/Desktop/LOSE/link_list/Module.symvers
m  CC [M]  /home/kfc/Desktop/LOSE/link_list/link_list.mod.o
ake  LD [M]  /home/kfc/Desktop/LOSE/link_list/link_list.ko
  BTF [M] /home/kfc/Desktop/LOSE/link_list/link_list.ko
Skipping BTF generation for /home/kfc/Desktop/LOSE/link_list/link_list.ko due to unavailability of vmlinux
make[1]: Leaving directory '/usr/src/linux-headers-5.15.0-101-generic'
kfc@ubuntu:~/Desktop/LOSE/link_list$ make install
sudo insmod link_list.ko
kfc@ubuntu:~/Desktop/LOSE/link_list$ dmesg | tail
[ 4030.668676] Color List:
[ 4030.668676] White: 255, Red: 0, Green: 0, Blue: 0
[ 4030.668678] White: 0, Red: 255, Green: 0, Blue: 0
[ 4030.668678] White: 0, Red: 0, Green: 255, Blue: 0
[ 4046.331390] module removed
[ 4087.329912] module loaded
[ 4087.329917] Color List:
[ 4087.329917] White: 255, Red: 0, Green: 0, Blue: 0
[ 4087.329919] White: 0, Red: 255, Green: 0, Blue: 0
[ 4087.329920] White: 0, Red: 0, Green: 255, Blue: 0
kfc@ubuntu:~/Desktop/LOSE/link_list$ make uninstall
sudo rmmod link_list
kfc@ubuntu:~/Desktop/LOSE/link_list$ dmesg | tail
[ 4030.668676] White: 255, Red: 0, Green: 0, Blue: 0
[ 4030.668678] White: 0, Red: 255, Green: 0, Blue: 0
[ 4030.668678] White: 0, Red: 0, Green: 255, Blue: 0
[ 4046.331390] module removed
[ 4087.329912] module loaded
[ 4087.329917] Color List:
[ 4087.329917] White: 255, Red: 0, Green: 0, Blue: 0
[ 4087.329919] White: 0, Red: 255, Green: 0, Blue: 0
[ 4087.329920] White: 0, Red: 0, Green: 255, Blue: 0
[ 4093.921184] module removed
kfc@ubuntu:~/Desktop/LOSE/link_list$
```

Figure 1: Screenshot