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CH2 Project1

jiffies

Design a kernel module that creates a /proc file named /proc/jiffies that reports the current value of jiffies when the /proc/jiffies file is read, such as with the command:

```
cat /proc/jiffies
```

Be sure to remove /proc/jiffies when the module is removed.

install

```
make MODULE_NAME=jiffies sudo insmod jiffies.ko
```

exec

```
cat /proc/jiffies
```

uninstall

```
sudo rmmod jiffies
make clean
```

screenshot

```
huhuhu ~/code/112-2-0S/jiffies main 
$ sudo insmod jiffies.ko
huhuhu ~/code/112-2-OS/jiffies main 
$ cat /proc/jiffies

JIFFIES: 4294942154
huhuhu ~/code/112-2-OS/jiffies main 
$ sudo rmmod jiffies
huhuhu ~/code/112-2-OS/jiffies main 
$ sudo dmesg -W

[ 209.066980] /proc/jiffies created
[ 216.305113] ahhhh you read me!!!
[ 233.625298] Removing /proc/jiffies
huhuhu ~/code/112-2-OS/jiffies main 
$ sudo dmesg -W

[ 209.066980] /proc/jiffies created
[ 216.305113] ahhhh you read me!!!

[ 233.625298] Removing /proc/jiffies

| Authority |
```

seconds

Design a kernel module that creates a proc file named /proc/seconds that reports the number of elapsed seconds since the kernel module was loaded.

This will involve using the value of jiffies as well as the HZ rate.

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When a user enters the command cat /proc/seconds your kernel module will report the number of seconds that have elapsed since the kernel module was first loaded.

Be sure to remove /proc/seconds when the module is removed.

install

```
make MODULE_NAME=seconds sudo insmod seconds.ko
```

exec

```
cat /proc/seconds
```

uninstall

```
sudo rmmod seconds
make clean
```

screenshot

```
huhuhu ~/code/112-2-0S/jiffies main 
$ sudo insmod seconds.ko
huhuhu ~/code/112-2-0S/jiffies main 
$ cat /proc/seconds
Time elapsed: 8 seconds
huhuhu ~/code/112-2-0S/jiffies main 
$ sudo rmmod seconds
huhuhu ~/code/112-2-0S/jiffies main
```