

Execution Time

Write a user program `exectime.c` to present the real time (also called clock time) spent on executing a shell command. Print the start time and completion time in terms of the ticks.

- It should be executed within `xv6`.
- In `xv6`, only `Makefile` can be changed.
- It is ok if the output contains some other information.
- The number of command line arguments for `exectime` should not be fixed.

Use `xv6` system calls: `uptime`, `fork`, `exec`, `wait`. Pay attention to their syntax (could be different from Unix).

Sample run (the output of the `ls` command could be different):

```
$ exectime
usage: exectime command argument-list
$ exectime ls
uptime: 1355
.          1 1 1024
..         1 1 1024
README    2 2 2305
cat       2 3 41632
echo      2 4 40512
forktest  2 5 16000
grep      2 6 45064
init      2 7 40968
kill      2 8 40424
ln        2 9 40240
ls        2 10 43576
mkdir     2 11 40488
rm        2 12 40472
sh        2 13 63048
stressfs  2 14 41352
usertests 2 15 189104
grind     2 16 56240
wc        2 17 42552
zombie    2 18 39848
uname     2 19 39976
vaddr     2 20 40232
exectime  2 21 40680
midterm   2 22 40048
stdiotest1 2 23 41304
stdiotest2 2 24 40344
stdiotest3 2 25 40400
mem       2 26 40648
pstate    2 27 39712
ps        2 28 39696
set       2 29 40192
pi        2 30 40496
console   3 31 0
uptime: 1357
$
```

Submission: a zipped file named `firstname_lastname.zip` containing `exectime.c` and `Makefile`.