

1. На языке C (gcc) напишите программу с вечным циклом, выводящую каждые 5 секунд на экран вашу ФИО и номер группы. Имя программы (файла) - ваша фамилия.

```
C khisamov.c x
home > taiiga > c > C khisamov.c
1  #include <stdio.h>
2  #include <unistd.h>
3
4
5  int main(){
6      for(;;) {
7          printf("Khisamov Iskander Ravilevich 7281-11\n");
8          sleep(5);
9      }
10     return 0;
11 }
```

2. создать задание на запуск задание для вашей программы, минута, час, день месяца, месяц - последняя цифра в номере зачетки, показывать этот список, удалять из списка (скриншоты в отчет)

```
GNU nano 5.2 crontab
# /etc/crontab: system-wide crontab
# Unlike any other crontab you don't have to run the `crontab'
# command to install the new version when you edit this file
# and files in /etc/cron.d. These files also have username fields,
# that none of the other crontabs do.

SHELL=/bin/sh
PATH=/usr/local/sbin:/usr/local/bin:/sbin:/bin:/usr/sbin:/usr/bin

# Example of job definition:
# .----- minute (0 - 59)
# | .----- hour (0 - 23)
# | | .----- day of month (1 - 31)
# | | | .----- month (1 - 12) OR jan,feb,mar,apr ...
# | | | | .---- day of week (0 - 6) (Sunday=0 or 7) OR sun,mon,tue,wed,thu>
# | | | | |
# * * * * * user-name command to be executed
17 * * * * root cd / && run-parts --report /etc/cron.hourly
25 6 * * * root test -x /usr/sbin/anacron || ( cd / && run-parts --rep>
47 6 * * 7 root test -x /usr/sbin/anacron || ( cd / && run-parts --rep>
52 6 1 * * root test -x /usr/sbin/anacron || ( cd / && run-parts --rep>
9 9 9 9 * root ./home/taiiga/c/khisamov
```

3. прописать в crontab, задание на запуск задание для вашей программы, минута, час, день месяца, месяц - последняя цифра в

номере зачетки (скриншоты в отчет)

```
GNU nano 5.2 crontab
# /etc/crontab: system-wide crontab
# Unlike any other crontab you don't have to run the `crontab'
# command to install the new version when you edit this file
# and files in /etc/cron.d. These files also have username fields,
# that none of the other crontabs do.

SHELL=/bin/sh
PATH=/usr/local/sbin:/usr/local/bin:/sbin:/bin:/usr/sbin:/usr/bin

# Example of job definition:
# .----- minute (0 - 59)
# | .----- hour (0 - 23)
# | | .----- day of month (1 - 31)
# | | | .----- month (1 - 12) OR jan,feb,mar,apr ...
# | | | | .---- day of week (0 - 6) (Sunday=0 or 7) OR sun,mon,tue,wed,thu>
# | | | | |
# * * * * * user-name command to be executed
17 * * * * root cd / && run-parts --report /etc/cron.hourly
25 6 * * * root test -x /usr/sbin/anacron || ( cd / && run-parts --rep>
47 6 * * 7 root test -x /usr/sbin/anacron || ( cd / && run-parts --rep>
52 6 1 * * root test -x /usr/sbin/anacron || ( cd / && run-parts --rep>
9 9 9 9 * root ./home/taiiqa/c/khisamov
```

4. запустите свою программу

```
taiiiga@taiiiga-VirtualBox:~/c$ gcc khisamov.c -o khisamov
taiiiga@taiiiga-VirtualBox:~/c$ sudo ./khisamov
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
^C
```

5. пошлите сигнал на прекращение процесса вашей программы по ID и по имени (скриншоты в отчет)

```
taiiiga@taiiiga-VirtualBox:~/c$ ps aux | grep khisamov
taiiiga      2059  0.0  0.0   2480    732 pts/1    S+   21:38   0:00  ./khisamov
taiiiga      2062  0.0  0.0  17664    860 pts/0    S+   21:38   0:00  grep --color
=auto khisamov
taiiiga@taiiiga-VirtualBox:~/c$ kill 2059
taiiiga@taiiiga-VirtualBox:~/c$ ps aux | grep khisamov
taiiiga      2065  0.0  0.0  17664    876 pts/0    R+   21:39   0:00  grep --color
=auto khisamov
```

[illegible]

6. запустите процесс вашей программы с конкретным приоритетом (скриншоты в отчет)

```
taiiiga@taiiiga-VirtualBox:~/c$ sudo nice -n 9 ./khisamov
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
```

7. измените приоритет процесса вашей программы (скриншоты в отчет)

```
taiiiga@taiiiga-VirtualBox:~/c$ ps aux | grep khisamov
root          2069  0.0  0.1 21052  5132 pts/1    S+   21:42   0:00 sudo nice -n
9 ./khisamov
root          2070  0.0  0.0   2480    728 pts/1    SN+  21:42   0:00 ./khisamov
taiiiga       2080  0.0  0.0 17664    812 pts/0    S+   21:43   0:00 grep --color
=auto khisamov
taiiiga@taiiiga-VirtualBox:~/c$ sudo renice +4 2070
2070 (process ID) old priority 4, new priority 4
```

8. выведите информацию о работающих процессах (ps) (скриншоты в отчет)

```

tailiga@tailiga-VirtualBox:~/c$ ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.3 103272 12084 ?        Ss   21:12   0:02 /sbin/init s
root           2  0.0  0.0      0      0 ?        S    21:12   0:00 [kthreadd]
root           3  0.0  0.0      0      0 ?        I<   21:12   0:00 [rcu_gp]
root           4  0.0  0.0      0      0 ?        I<   21:12   0:00 [rcu_par_gp]
root           6  0.0  0.0      0      0 ?        I<   21:12   0:00 [kworker/0:0
root           7  0.0  0.0      0      0 ?        R    21:12   0:00 [kworker/u4:
root           8  0.0  0.0      0      0 ?        I<   21:12   0:00 [mm_percpu_w
root           9  0.0  0.0      0      0 ?        S    21:12   0:00 [ksoftirqd/0
root          10  0.0  0.0      0      0 ?        I    21:12   0:00 [rcu_sched]
root          11  0.0  0.0      0      0 ?        S    21:12   0:00 [migration/0
root          12  0.0  0.0      0      0 ?        S    21:12   0:00 [idle_inject
root          14  0.0  0.0      0      0 ?        S    21:12   0:00 [cpuhp/0]
root          15  0.0  0.0      0      0 ?        S    21:12   0:00 [cpuhp/1]
root          16  0.0  0.0      0      0 ?        S    21:12   0:00 [idle_inject
root          17  0.0  0.0      0      0 ?        S    21:12   0:01 [migration/1
root          18  0.0  0.0      0      0 ?        S    21:12   0:00 [ksoftirqd/1
root          20  0.0  0.0      0      0 ?        I<   21:12   0:00 [kworker/1:0
root          21  0.0  0.0      0      0 ?        S    21:12   0:00 [kdevtmpfs]
root          22  0.0  0.0      0      0 ?        I<   21:12   0:00 [netns]
root          23  0.0  0.0      0      0 ?        S    21:12   0:00 [rcu_tasks_k
root          24  0.0  0.0      0      0 ?        S    21:12   0:00 [rcu_tasks_r
root          25  0.0  0.0      0      0 ?        S    21:12   0:00 [rcu_tasks_t
root          26  0.0  0.0      0      0 ?        S    21:12   0:00 [kauditd]
root          27  0.0  0.0      0      0 ?        S    21:12   0:00 [khungtaskd]
root          28  0.0  0.0      0      0 ?        S    21:12   0:00 [oom_reaper]

tailiga       1196  0.0  0.1 232052  6016 ?        Sl   21:13   0:00 /usr/libexec
tailiga       1205  0.0  0.1 171352  7192 ?        Sl   21:13   0:00 /usr/libexec
tailiga       1296  0.0  0.1 156200  5536 ?        Sl   21:13   0:00 /usr/libexec
tailiga       1305  0.0  0.3 351972 15356 ?        Sl   21:13   0:00 /usr/libexec
colord        1306  0.0  0.3 255820 14936 ?        Ssl  21:13   0:00 /usr/libexec
tailiga       1307  0.0  0.7 756332 30164 ?        Ssl  21:13   0:00 /usr/libexec
tailiga       1315  0.3  4.8 1319884 194088 ?        Sl   21:13   0:06 /snap/snap-s
tailiga       1333  0.0  0.1 540040  6764 ?        Ssl  21:13   0:00 /usr/libexec
root          1337  0.0  0.0   2588  1856 ?        Ss   21:13   0:00 fusermount -
root          1447  0.0  0.5 387236 24044 ?        Ssl  21:13   0:00 /usr/libexec
tailiga       1738  0.0  1.0 740660 43524 ?        Sl   21:14   0:00 update-notif
tailiga       1916  0.2  1.8 1412136 76400 ?        Sl   21:17   0:05 /usr/bin/nau
root          1941  0.0  0.0      0      0 ?        I    21:17   0:00 [kworker/1:5
root          1984  0.0  0.0      0      0 ?        I    21:27   0:00 [kworker/1:0
root          1987  0.0  0.0      0      0 ?        I    21:27   0:00 [kworker/0:3
tailiga       1990  0.0  0.4  44944 19388 ?        S    21:27   0:00 /usr/bin/pyt
tailiga       1993  0.0  0.7 316828 29316 ?        Sl   21:27   0:00 /usr/bin/gno
tailiga       1996  0.4  1.2 824332 49528 ?        Ssl  21:27   0:05 /usr/libexec
tailiga       2005  0.0  0.1  19352  5060 pts/0    Ss   21:27   0:00 bash
root          2036  0.0  0.0      0      0 ?        I    21:33   0:00 [kworker/0:0
tailiga       2053  0.0  0.1  19356  5016 pts/1    Ss   21:38   0:00 bash
root          2063  0.0  0.0      0      0 ?        I    21:38   0:00 [kworker/u4:
root          2069  0.0  0.1  21052  5132 pts/1    S+   21:42   0:00 sudo nice -n
root          2070  0.0  0.0   2480   728 pts/1    SN+  21:42   0:00 ./khisamov
tailiga       2086  0.0  0.0  20996  3632 pts/0    R+   21:49   0:00 ps aux
tailiga@tailiga-VirtualBox:~/c$

```

9. запустите процесс вашей программы в фоновом режиме, выведите из фонового режима (скриншоты в отчет)

```
taiiiga@taiiiga-VirtualBox:~/c$ ./khisamov &
[1] 2088
taiiiga@taiiiga-VirtualBox:~/c$ Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
fKhisamov Iskander Ravilevich 7281-11
g
./khisamov
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
```

10. запустите процесс вашей программы в интерактивном режиме, переведите в спящий режим, переведите в фоновый режим, выведите из фонового режима (скриншоты в отчет)

```
taiiiga@taiiiga-VirtualBox:~/c$ ./khisamov
Khisamov Iskander Ravilevich 7281-11
^Z
[6]+  Stopped                  ./khisamov
taiiiga@taiiiga-VirtualBox:~/c$ bg
[6]+ ./khisamov &
taiiiga@taiiiga-VirtualBox:~/c$ Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
fg
./khisamov
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
^C
taiiiga@taiiiga-VirtualBox:~/c$
```

11. передайте выходной поток другой программе (поток ps) (скриншоты в отчет)

```
taiiiga@taiiiga-VirtualBox:~/c$ ps -ax | ./khisamov
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
Khisamov Iskander Ravilevich 7281-11
```

12.запишите выходной поток процесса (поток ps) в файл (скриншоты в отчет)

```
taiiiga@taiiiga-VirtualBox:~/c$ ps -ax > process
taiiiga@taiiiga-VirtualBox:~/c$ cat process
```

| PID | TTY | STAT | TIME | COMMAND |
|-----|-----|------|------|------------------------|
| 1 | ? | Ss | 0:02 | /sbin/init splash |
| 2 | ? | S | 0:00 | [kthreadd] |
| 3 | ? | I< | 0:00 | [rcu_gp] |
| 4 | ? | I< | 0:00 | [rcu_par_gp] |
| 6 | ? | I< | 0:00 | [kworker/0:0H-kblockd] |
| 8 | ? | I< | 0:00 | [mm_percpu_wq] |
| 9 | ? | S | 0:00 | [ksoftirqd/0] |
| 10 | ? | I | 0:00 | [rcu_sched] |
| 11 | ? | S | 0:00 | [migration/0] |
| 12 | ? | S | 0:00 | [idle_inject/0] |
| 14 | ? | S | 0:00 | [cpuhp/0] |
| 15 | ? | S | 0:00 | [cpuhp/1] |
| 16 | ? | S | 0:00 | [idle_inject/1] |
| 17 | ? | S | 0:01 | [migration/1] |
| 18 | ? | S | 0:00 | [ksoftirqd/1] |
| 20 | ? | I< | 0:00 | [kworker/1:0H-kblockd] |
| 21 | ? | S | 0:00 | [kdevtmpfs] |
| 22 | ? | I< | 0:00 | [netns] |
| 23 | ? | S | 0:00 | [rcu_tasks_kthre] |
| 24 | ? | S | 0:00 | [rcu_tasks_rude_] |
| 25 | ? | S | 0:00 | [rcu_tasks_trace] |
| 26 | ? | S | 0:00 | [kauditd] |
| 27 | ? | S | 0:00 | [khungtaskd] |
| 28 | ? | S | 0:00 | [oom_reaper] |

13.вывести информацию о работающих процессах, с различным количеством столбцов и процессов (ps) (скриншоты в отчет)


```
taiiiga@taiiiga-VirtualBox:~/c$ ps au
```

| USER | PID | %CPU | %MEM | VSZ | RSS | TTY | STAT | START | TIME | COMMAND |
|---------|------|------|------|--------|-------|-------|------|-------|------|--------------|
| taiiiga | 847 | 0.0 | 0.1 | 173524 | 6776 | tty2 | Ssl+ | 21:13 | 0:00 | /usr/libexec |
| taiiiga | 849 | 1.1 | 1.4 | 275680 | 57364 | tty2 | Sl+ | 21:13 | 0:42 | /usr/lib/xor |
| taiiiga | 947 | 0.0 | 0.3 | 198160 | 14228 | tty2 | Sl+ | 21:13 | 0:00 | /usr/libexec |
| taiiiga | 2005 | 0.0 | 0.1 | 19352 | 5068 | pts/0 | Ss | 21:27 | 0:00 | bash |
| taiiiga | 2088 | 0.0 | 0.0 | 2480 | 668 | pts/0 | T | 21:51 | 0:00 | ./khisamov |
| taiiiga | 2127 | 0.0 | 0.0 | 2480 | 664 | pts/0 | T | 21:58 | 0:00 | ./khisamov |
| taiiiga | 2158 | 0.0 | 0.0 | 2480 | 728 | pts/0 | T | 22:03 | 0:00 | ./khisamov |
| taiiiga | 2159 | 0.0 | 0.0 | 2480 | 732 | pts/0 | T | 22:04 | 0:00 | ./khisamov |
| taiiiga | 2182 | 0.0 | 0.0 | 2480 | 664 | pts/0 | T | 22:07 | 0:00 | ./khisamov |
| taiiiga | 2190 | 0.0 | 0.0 | 2480 | 728 | pts/0 | T | 22:11 | 0:00 | ./khisamov |
| taiiiga | 2211 | 0.0 | 0.0 | 20996 | 3580 | pts/0 | R+ | 22:16 | 0:00 | ps au |

```
taiiiga@taiiiga-VirtualBox:~/c$ ps -x
```

| PID | TTY | STAT | TIME | COMMAND |
|-----|------|------|------|--|
| 830 | ? | Ss | 0:00 | /lib/systemd/systemd --user |
| 831 | ? | S | 0:00 | (sd-pam) |
| 838 | ? | S<sl | 0:01 | /usr/bin/pulseaudio --daemonize=no --log-target=jo |
| 840 | ? | SNsl | 0:00 | /usr/libexec/tracker-miner-fs |
| 843 | ? | Sll | 0:00 | /usr/bin/gnome-keyring-daemon --daemonize --login |
| 847 | tty2 | Ssl+ | 0:00 | /usr/libexec/gdm-x-session --run-script env GNOME_ |
| 849 | tty2 | Sl+ | 0:42 | /usr/lib/xorg/Xorg vt2 -displayfd 3 -auth /run/use |
| 854 | ? | Ss | 0:00 | /usr/bin/dbus-daemon --session --address=systemd: |
| 861 | ? | Ssl | 0:00 | /usr/libexec/gvfsd |
| 876 | ? | Sl | 0:00 | /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o |
| 886 | ? | Ssl | 0:00 | /usr/libexec/gvfs-udisks2-volume-monitor |
| 891 | ? | Ssl | 0:00 | /usr/libexec/gvfs-mtp-volume-monitor |
| 896 | ? | Ssl | 0:00 | /usr/libexec/gvfs-gphoto2-volume-monitor |
| 900 | ? | Ssl | 0:00 | /usr/libexec/gvfs-afc-volume-monitor |

14. вывести динамическую информацию о процессах, сортировать эту информацию по столбцам, убирать и добавлять столбцы, менять приоритет процесса, уничтожать процесс. (top) (скриншоты в отчет)

```
top - 22:18:33 up 1:06, 1 user, load average: 0,00, 0,02, 0,00
Tasks: 189 total, 1 running, 180 sleeping, 8 stopped, 0 zombie
%Cpu(s): 1,4 us, 3,0 sy, 0,0 ni, 95,5 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MiB Mem : 3932,3 total, 2261,4 free, 751,3 used, 919,6 buff/cache
MiB Swap: 448,4 total, 448,4 free, 0,0 used. 2953,3 avail Mem
```

| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
|------|--------|-----|-----|---------|--------|--------|---|------|------|---------|---------|
| 849 | taiiga | 20 | 0 | 275680 | 57364 | 37472 | S | 8,6 | 1,4 | 0:43.82 | Xorg |
| 1072 | taiiga | 20 | 0 | 3735888 | 237644 | 100192 | S | 3,0 | 5,9 | 0:29.03 | gnome-+ |
| 1996 | taiiga | 20 | 0 | 824332 | 49668 | 38040 | S | 3,0 | 1,2 | 0:12.71 | gnome-+ |
| 2036 | root | 20 | 0 | 0 | 0 | 0 | I | 0,3 | 0,0 | 0:00.41 | kworke+ |
| 1 | root | 20 | 0 | 103272 | 12084 | 8816 | S | 0,0 | 0,3 | 0:02.21 | systemd |
| 2 | root | 20 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.01 | kthrea+ |
| 3 | root | 0 | -20 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.00 | rcu_gp |
| 4 | root | 0 | -20 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.00 | rcu_pa+ |
| 6 | root | 0 | -20 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.00 | kworke+ |
| 8 | root | 0 | -20 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.00 | mm_per+ |
| 9 | root | 20 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.13 | ksofti+ |
| 10 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.57 | rcu_sc+ |
| 11 | root | rt | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.01 | migrat+ |
| 12 | root | -51 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.00 | idle_i+ |
| 14 | root | 20 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.00 | cpuhp/0 |
| 15 | root | 20 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.00 | cpuhp/1 |
| 16 | root | -51 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.00 | idle_i+ |
| 17 | root | rt | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:01.50 | migrat+ |
| 18 | root | 20 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.13 | ksofti+ |
| 20 | root | 0 | -20 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.00 | kworke+ |
| 21 | root | 20 | 0 | 0 | 0 | 0 | S | 0,0 | 0,0 | 0:00.02 | kdevtm+ |
| 22 | root | 0 | -20 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.00 | netns |

сортировать эту информацию по столбцам

```
taiiga@taiiga-VirtualBox:~/c$ top -o USER
```



```
top - 22:20:14 up 1:07, 1 user, load average: 0,19, 0,06, 0,01
Tasks: 190 total, 1 running, 181 sleeping, 8 stopped, 0 zombie
%Cpu(s): 2,2 us, 6,0 sy, 0,0 ni, 91,9 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MiB Mem : 3932,3 total, 2261,6 free, 751,1 used, 919,6 buff/cache
MiB Swap: 448,4 total, 448,4 free, 0,0 used. 2953,6 avail Mem
```

| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
|------|----------|----|-----|---------|-------|-------|---|------|------|---------|---------|
| 685 | whoopsie | 20 | 0 | 254148 | 15744 | 13852 | S | 0,0 | 0,4 | 0:00.03 | whoops+ |
| 830 | taiiiga | 20 | 0 | 20436 | 11000 | 8516 | S | 0,0 | 0,3 | 0:00.59 | systemd |
| 831 | taiiiga | 20 | 0 | 105016 | 3708 | 20 | S | 0,0 | 0,1 | 0:00.00 | (sd-pa+ |
| 838 | taiiiga | 9 | -11 | 1942848 | 19724 | 15584 | S | 0,0 | 0,5 | 0:01.62 | pulsea+ |
| 840 | taiiiga | 39 | 19 | 520808 | 24684 | 16572 | S | 0,0 | 0,6 | 0:00.18 | tracke+ |
| 843 | taiiiga | 20 | 0 | 248848 | 7208 | 6224 | S | 0,0 | 0,2 | 0:00.04 | gnome-+ |
| 847 | taiiiga | 20 | 0 | 173524 | 6776 | 6124 | S | 0,0 | 0,2 | 0:00.01 | gdm-x-+ |
| 849 | taiiiga | 20 | 0 | 275680 | 57364 | 37472 | S | 13,7 | 1,4 | 0:46.65 | Xorg |
| 854 | taiiiga | 20 | 0 | 11020 | 7452 | 4196 | S | 0,0 | 0,2 | 0:00.59 | dbus-d+ |
| 861 | taiiiga | 20 | 0 | 248392 | 7864 | 6928 | S | 0,0 | 0,2 | 0:00.05 | gvfsd |
| 876 | taiiiga | 20 | 0 | 378344 | 6504 | 5856 | S | 0,0 | 0,2 | 0:00.02 | gvfsd-+ |
| 886 | taiiiga | 20 | 0 | 323668 | 9424 | 8000 | S | 0,0 | 0,2 | 0:00.08 | gvfs-u+ |
| 891 | taiiiga | 20 | 0 | 244324 | 6380 | 5804 | S | 0,0 | 0,2 | 0:00.02 | gvfs-m+ |
| 896 | taiiiga | 20 | 0 | 246596 | 7040 | 6348 | S | 0,0 | 0,2 | 0:00.02 | gvfs-g+ |
| 900 | taiiiga | 20 | 0 | 322960 | 7888 | 7068 | S | 0,0 | 0,2 | 0:00.12 | gvfs-a+ |
| 905 | taiiiga | 20 | 0 | 244516 | 6144 | 5628 | S | 0,0 | 0,2 | 0:00.01 | gvfs-g+ |
| 909 | taiiiga | 20 | 0 | 555548 | 36964 | 30944 | S | 0,0 | 0,9 | 0:00.38 | goa-da+ |
| 917 | taiiiga | 20 | 0 | 323440 | 9020 | 7988 | S | 0,0 | 0,2 | 0:00.03 | goa-id+ |
| 947 | taiiiga | 20 | 0 | 198160 | 14228 | 12632 | S | 0,0 | 0,4 | 0:00.07 | gnome-+ |
| 1000 | taiiiga | 20 | 0 | 170884 | 6388 | 5804 | S | 0,0 | 0,2 | 0:00.02 | gvfsd-+ |
| 1020 | taiiiga | 20 | 0 | 6040 | 448 | 0 | S | 0,0 | 0,0 | 0:00.01 | ssh-ag+ |
| 1038 | taiiiga | 20 | 0 | 305368 | 6612 | 5984 | S | 0,0 | 0,2 | 0:00.01 | at-spi+ |

убирать и добавлять столбцы

```
Fields Management for window 1:Def, whose current sort field is USER
Navigate with Up/Dn, Right selects for move then <Enter> or Left commits,
'd' or <Space> toggles display, 's' sets sort. Use 'q' or <Esc> to end!
```

```
* PID      = Process Id          P          = Last Used Cpu      nsUTS      = UTS namespace
* USER     = Effective Use    TIME       = CPU Time          LXC        = LXC container
* PR       = Priority         SWAP      = Swapped Size       RSan       = RES Anonymous
* NI       = Nice Value      CODE      = Code Size (Ki     RSfd       = RES File-base
* VIRT     = Virtual Image   DATA     = Data+Stack (K  RSlk       = RES Locked (K
* RES      = Resident Size   nMaj     = Major Page Fa    RSsh       = RES Shared (K
* SHR      = Shared Memory   nMin     = Minor Page Fa   CGNAME     = Control Group
* S        = Process Statu   nDRT     = Dirty Pages C  NU         = Last Used NUM
* %CPU     = CPU Usage       WCHAN    = Sleeping in F
* %MEM     = Memory Usage    Flags    = Task Flags <s
* TIME+    = CPU Time, hun   CGROUPS  = Control Group
* COMMAND  = Command Name/  SUPGIDS  = Supp Groups I
PPID      = Parent Proces  SUPGRPS  = Supp Groups N
* UID      = Effective Use   TGID     = Thread Group
RUID      = Real User Id    OOMa     = OOMEM Adjustm
RUSER     = Real User Nam   OOMS     = OOMEM Score c
SUID      = Saved User Id   ENVIRON  = Environment v
SUSER     = Saved User Na   VMj      = Major Faults
GID       = Group Id       VMn      = Minor Faults
GROUP     = Group Name     USED     = Res+Swap Size
PGRP      = Process Group  nsIPC    = IPC namespace
TTY       = Controlling T   nsMNT    = MNT namespace
TPGID     = Tty Process G  nsNET    = NET namespace
SID       = Session Id     nsPID    = PID namespace
nTH       = Number of Thr  nsUSER   = USER namespac
```

```
Fields Management for window 1:Def, whose current sort field is USER
Navigate with Up/Dn, Right selects for move then <Enter> or Left commits,
'd' or <Space> toggles display, 's' sets sort. Use 'q' or <Esc> to end!

* PID      = Process Id      P      = Last Used Cpu    nsUTS    = UTS namespace
* UID      = Effective Use   TIME    = CPU Time        LXC      = LXC container
* USER     = Effective Use   SWAP    = Swapped Size    RSan     = RES Anonymous
* PR       = Priority        CODE    = Code Size (Ki   RSfd     = RES File-base
* NI       = Nice Value      DATA   = Data+Stack (K  RSlk     = RES Locked (K
* VIRT     = Virtual Image   nMaj    = Major Page Fa RSsh     = RES Shared (K
* RES      = Resident Size   nMin    = Minor Page Fa CGNAME    = Control Group
* SHR      = Shared Memory   nDRT    = Dirty Pages C  NU       = Last Used NUM
* S        = Process Statu  WCHAN   = Sleeping in F
* %CPU     = CPU Usage      Flags   = Task Flags <s
* %MEM     = Memory Usage   CGROUPS = Control Group
* TIME+    = CPU Time, hun  SUPGIDS = Supp Groups I
* COMMAND  = Command Name/  SUPGRPS = Supp Groups N
PPID      = Parent Proces  TGID    = Thread Group
```

```
top - 22:36:12 up 1:23, 1 user, load average: 0,22, 0,10, 0,02
Tasks: 190 total, 4 running, 178 sleeping, 8 stopped, 0 zombie
%Cpu(s): 0,4 us, 1,0 sy, 0,0 ni, 98,6 id, 0,0 wa, 0,0 hi, 0,1 si, 0,0 st
MiB Mem : 3932,3 total, 2259,3 free, 753,0 used, 920,0 buff/cache
MiB Swap: 448,4 total, 448,4 free, 0,0 used. 2951,6 avail Mem

  PID  UID USER      PR  NI   VIRT   RES   SHR S  %CPU  %MEM  TIME+
  685  119 whoopsie  20   0 254148 15744 13852 S   0,0   0,4   0:00.03
  830 1000 taiiga   20   0  20436 11000  8516 S   0,0   0,3   0:00.68
```

```
Fields Management for window 1:Def, whose current sort field is USER
Navigate with Up/Dn, Right selects for move then <Enter> or Left commits,
'd' or <Space> toggles display, 's' sets sort. Use 'q' or <Esc> to end!

* PID      = Process Id      P      = Last Used Cpu    nsUTS    = UTS namespace
* USER     = Effective Use   TIME    = CPU Time        LXC      = LXC container
* %CPU     = CPU Usage      SWAP    = Swapped Size    RSan     = RES Anonymous
* %MEM     = Memory Usage   CODE    = Code Size (Ki   RSfd     = RES File-base
* UID      = Effective Use   DATA   = Data+Stack (K  RSlk     = RES Locked (K

top - 22:37:33 up 1:25, 1 user, load average: 0,05, 0,07, 0,01
Tasks: 189 total, 1 running, 180 sleeping, 8 stopped, 0 zombie
%Cpu(s): 0,4 us, 1,4 sy, 0,0 ni, 98,1 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MiB Mem : 3932,3 total, 2259,6 free, 752,8 used, 920,0 buff/cache
MiB Swap: 448,4 total, 448,4 free, 0,0 used. 2951,8 avail Mem

  PID  USER      %CPU  %MEM
  685  whoopsie   0,0   0,4
  830  taiiga     0,0   0,3
  831  taiiga     0,0   0,1
  838  taiiga     0,0   0,5
```

менять приоритет процесса

| PID to renice [default pid = 2127] 2286 | | | | | | | | | | | |
|---|---------|----|----|-------|------|------|---|------|------|---------|---------|
| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
| 2127 | taiiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2158 | taiiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2159 | taiiiga | 20 | 0 | 2480 | 732 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2182 | taiiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2190 | taiiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2228 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.24 | kworke+ |
| 2257 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.18 | kworke+ |
| 2261 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.58 | kworke+ |
| 2269 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.09 | kworke+ |
| 2272 | taiiiga | 20 | 0 | 19224 | 5032 | 3596 | S | 0,0 | 0,1 | 0:00.01 | bash |
| 2279 | taiiiga | 20 | 0 | 2480 | 732 | 656 | S | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2284 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.04 | kworke+ |
| 2286 | taiiiga | 20 | 0 | 21360 | 4028 | 3508 | R | 0,0 | 0,1 | 0:00.73 | top |

| Renice PID 2286 to value 1 | | | | | | | | | | | |
|----------------------------|---------|----|----|-------|------|------|---|------|------|---------|---------|
| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
| 2127 | taiiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2158 | taiiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2159 | taiiiga | 20 | 0 | 2480 | 732 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2182 | taiiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2190 | taiiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2228 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.24 | kworke+ |
| 2257 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.18 | kworke+ |
| 2261 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.58 | kworke+ |
| 2269 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.09 | kworke+ |
| 2272 | taiiiga | 20 | 0 | 19224 | 5032 | 3596 | S | 0,0 | 0,1 | 0:00.01 | bash |
| 2279 | taiiiga | 20 | 0 | 2480 | 732 | 656 | S | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2284 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.04 | kworke+ |
| 2286 | taiiiga | 20 | 0 | 21360 | 4028 | 3508 | R | 0,0 | 0,1 | 0:00.73 | top |

| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
|------|---------|----|----|-------|------|------|---|------|------|---------|---------|
| 2127 | taiiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2158 | taiiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2159 | taiiiga | 20 | 0 | 2480 | 732 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2182 | taiiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2190 | taiiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2228 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.24 | kworke+ |
| 2257 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.20 | kworke+ |
| 2261 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.62 | kworke+ |
| 2272 | taiiiga | 20 | 0 | 19224 | 5032 | 3596 | S | 0,0 | 0,1 | 0:00.01 | bash |
| 2279 | taiiiga | 20 | 0 | 2480 | 732 | 656 | S | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2284 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.05 | kworke+ |
| 2286 | taiiiga | 21 | 1 | 21360 | 4028 | 3508 | R | 0,0 | 0,1 | 0:00.75 | top |

уничтожать процесс

| PID to signal/kill [default pid = 2127] 2286 | | | | | | | | | | | |
|--|---------------|-----------|----------|--------------|-------------|-------------|----------|------------|------------|----------------|------------|
| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
| 2127 | taiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2158 | taiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2159 | taiiga | 20 | 0 | 2480 | 732 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2182 | taiiga | 20 | 0 | 2480 | 664 | 592 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2190 | taiiga | 20 | 0 | 2480 | 728 | 656 | T | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2228 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.24 | kwerke+ |
| 2257 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.21 | kwerke+ |
| 2261 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.65 | kwerke+ |
| 2272 | taiiga | 20 | 0 | 19224 | 5032 | 3596 | S | 0,0 | 0,1 | 0:00.01 | bash |
| 2279 | taiiga | 20 | 0 | 2480 | 732 | 656 | S | 0,0 | 0,0 | 0:00.00 | khisam+ |
| 2284 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.07 | kwerke+ |
| 2286 | taiiga | 21 | 1 | 21360 | 4028 | 3508 | R | 0,0 | 0,1 | 0:00.84 | top |
| 2287 | root | 20 | 0 | 0 | 0 | 0 | I | 0,0 | 0,0 | 0:00.00 | kwerke+ |