

Практика 3

Раздел 1

1. Входим под пользователем user1 из практики 2 (su - user1)

```
root@eltex-practice2-pg1-v6:~# su - user1
user1@eltex-practice2-pg1-v6:~$
```

2. Подсчитываем количество процессов, имеющих несколько потоков выполнения

```
user1@eltex-practice2-pg1-v6:~$ ps -eLo pid | sort | uniq -c | awk '$1 > 1' | wc
-l
10
user1@eltex-practice2-pg1-v6:~$
```

3. Запускаем top и настраиваем вывод полей с информацией о процессе следующим образом:

- удаляем поля VIRT, RES, SHR;
- добавляем поле RUSER и делаем так, чтобы это поле было показано после поля USER;

```
top - 06:10:17 up 3 days, 3:49, 2 users, load average: 0.00, 0.00, 0.00
Tasks: 110 total, 1 running, 109 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni, 65.0 id, 35.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3916.0 total, 2265.6 free, 529.2 used, 1421.2 buff/cache
MiB Swap: 3185.0 total, 3184.7 free, 0.3 used. 3386.8 avail Mem
```

| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
|-----|------|-----|-----|-------|-------|------|---|------|------|---------|----------|
| 1 | root | 20 | 0 | 22544 | 13824 | 9600 | S | 0.0 | 0.3 | 0:07.06 | systemd |
| 2 | root | 20 | 0 | 0 | 0 | 0 | S | 0.0 | 0.0 | 0:00.02 | kthreadd |
| 3 | root | 20 | 0 | 0 | 0 | 0 | S | 0.0 | 0.0 | 0:00.00 | pool_wor |
| 4 | root | 0 | -20 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | kworker+ |
| 5 | root | 0 | -20 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | kworker+ |
| 6 | root | 0 | -20 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | kworker+ |
| 7 | root | 0 | -20 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | kworker+ |
| 10 | root | 0 | -20 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | kworker+ |
| 12 | root | 0 | -20 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | kworker+ |
| 13 | root | 20 | 0 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | rcu_tas+ |
| 14 | root | 20 | 0 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | rcu_tas+ |
| 15 | root | 20 | 0 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:00.00 | rcu_tas+ |
| 16 | root | 20 | 0 | 0 | 0 | 0 | S | 0.0 | 0.0 | 0:00.10 | ksoftir+ |
| 17 | root | 20 | 0 | 0 | 0 | 0 | I | 0.0 | 0.0 | 0:01.92 | rcu_pre+ |
| 18 | root | rt | 0 | 0 | 0 | 0 | S | 0.0 | 0.0 | 0:01.06 | migrati+ |
| 19 | root | -51 | 0 | 0 | 0 | 0 | S | 0.0 | 0.0 | 0:00.00 | idle_in+ |
| 20 | root | 20 | 0 | 0 | 0 | 0 | S | 0.0 | 0.0 | 0:00.00 | cpuhp/0 |

Нажимаем f для выбора поля

Fields Management for window **l:Def**, whose current sort field is **%CPU**

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 | PGRP | = Process | OOMS | = OOMEM S | RSS | = Res Mem |
| * USER | = Effecti | TTY | = Control | ENVIRON | = Environ | PSS | = Proport |
| * PR | = Priorit | TPGID | = Tty Pro | vMj | = Major F | PSan | = Proport |
| * NI | = Nice Va | SID | = Session | vMn | = Minor F | PSfd | = Proport |
| * VIRT | = Virtual | nTH | = Number | USED | = Res+Swa | PSsh | = Proport |
| * RES | = Residen | P | = Last Us | nsIPC | = IPC nam | USS | = Unique |
| * SHR | = Shared | TIME | = CPU Tim | nsMNT | = MNT nam | ioR | = I/O Byt |
| * S | = Process | SWAP | = Swapped | nsNET | = NET nam | ioRop | = I/O Rea |
| * %CPU | = CPU Usa | CODE | = Code Si | nsPID | = PID nam | ioW | = I/O Byt |
| * %MEM | = Memory | DATA | = Data+St | nsUSER | = USER na | ioWop | = I/O Wri |
| * TIME+ | = CPU Tim | nMaj | = Major P | nsUTS | = UTS nam | AGID | = Autogro |
| * COMMAND | = Command | nMin | = Minor P | LXC | = LXC con | AGNI | = Autogro |
| PPID | = Parent | nDRT | = Dirty P | RSan | = RES Ano | STARTED | = Start T |
| UID | = Effecti | WCHAN | = Sleepin | RSfd | = RES Fil | ELAPSED | = Elapsed |
| RUID | = Real Us | Flags | = Task Fl | RSlk | = RES Loc | %CUU | = CPU Uti |
| RUSER | = Real Us | CGROUPS | = Control | RSsh | = RES Sha | %CUC | = Utiliza |
| SUID | = Saved U | SUPGIDS | = Supp Gr | CGNAME | = Control | nsCGROUP | = CGRP na |
| SUSER | = Saved U | SUPGRPS | = Supp Gr | NU | = Last Us | nsTIME | = TIME na |
| GID | = Group I | TGID | = Thread | LOGID | = Login U | | |
| GROUP | = Group N | OOMa | = OOMEM A | EXE | = Executa | | |

Отключаем, нажимая d

Fields Management for window **l:Def**, whose current sort field is **%CPU**

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 | PGRP | = Process Group Id | OOMS | = OOMEM Score current | RSS | = Res Mem (smaps), KiB |
| * USER | = Effective User Name | TTY | = Controlling Tty | ENVIRON | = Environment vars | PSS | = Proportion RSS, KiB |
| * PR | = Priority | TPGID | = Tty Process Grp Id | vMj | = Major Faults delta | PSan | = Proportion Anon, KiB |
| * NI | = Nice Value | SID | = Session Id | vMn | = Minor Faults delta | PSfd | = Proportion File, KiB |
| VIRT | = Virtual Image (KiB) | nTH | = Number of Threads | USED | = Res+Swap Size (KiB) | PSsh | = Proportion Shrd, KiB |
| RES | = Resident Size (KiB) | P | = Last Used Cpu (SMP) | nsIPC | = IPC namespace Inode | USS | = Unique RSS, KiB |
| SHR | = Shared Memory (KiB) | TIME | = CPU Time | nsMNT | = MNT namespace Inode | ioR | = I/O Bytes Read |
| * S | = Process Status | SWAP | = Swapped Size (KiB) | nsNET | = NET namespace Inode | ioRop | = I/O Read Operations |
| * %CPU | = CPU Usage | CODE | = Code Size (KiB) | nsPID | = PID namespace Inode | ioW | = I/O Bytes Written |
| * %MEM | = Memory Usage (RES) | DATA | = Data+Stack (KiB) | nsUSER | = USER namespace Inode | ioWop | = I/O Write Operations |
| * TIME+ | = CPU Time, hundredths | nMaj | = Major Page Faults | nsUTS | = UTS namespace Inode | AGID | = Autogroup Identifier |
| * COMMAND | = Command Name/Line | nMin | = Minor Page Faults | LXC | = LXC container name | AGNI | = Autogroup Nice Value |
| PPID | = Parent Process pid | nDRT | = Dirty Pages Count | RSan | = RES Anonymous (KiB) | STARTED | = Start Time from boot |
| UID | = Effective User Id | WCHAN | = Sleeping in Function | RSfd | = RES File-based (KiB) | ELAPSED | = Elapsed Running Time |
| RUID | = Real User Id | Flags | = Task Flags <sched.h> | RSlk | = RES Locked (KiB) | %CUU | = CPU Utilization |
| RUSER | = Real User Name | CGROUPS | = Control Groups | RSsh | = RES Shared (KiB) | %CUC | = Utilization + child |
| SUID | = Saved User Id | SUPGIDS | = Supp Groups Ids | CGNAME | = Control Group name | nsCGROUP | = CGRP namespace Inode |
| SUSER | = Saved User Name | SUPGRPS | = Supp Groups Names | NU | = Last Used NUMA node | nsTIME | = TIME namespace Inode |
| GID | = Group Id | TGID | = Thread Group Id | LOGID | = Login User Id | | |
| GROUP | = Group Name | OOMa | = OOMEM Adjustment | EXE | = Executable Path | | |

Включаем, нажимая d

Fields Management for window **l:Def**, whose current sort field is **%CPU**

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 | PGRP | = Process Group Id | OOMS | = OOMEM Score current | RSS | = Res Mem (smaps), KiB |
| * USER | = Effective User Name | TTY | = Controlling Tty | ENVIRON | = Environment vars | PSS | = Proportion RSS, KiB |
| * PR | = Priority | TPGID | = Tty Process Grp Id | vMj | = Major Faults delta | PSan | = Proportion Anon, KiB |
| * NI | = Nice Value | SID | = Session Id | vMn | = Minor Faults delta | PSfd | = Proportion File, KiB |
| VIRT | = Virtual Image (KiB) | nTH | = Number of Threads | USED | = Res+Swap Size (KiB) | PSsh | = Proportion Shrd, KiB |
| RES | = Resident Size (KiB) | P | = Last Used Cpu (SMP) | nsIPC | = IPC namespace Inode | USS | = Unique RSS, KiB |
| SHR | = Shared Memory (KiB) | TIME | = CPU Time | nsMNT | = MNT namespace Inode | ioR | = I/O Bytes Read |
| * S | = Process Status | SWAP | = Swapped Size (KiB) | nsNET | = NET namespace Inode | ioRop | = I/O Read Operations |
| * %CPU | = CPU Usage | CODE | = Code Size (KiB) | nsPID | = PID namespace Inode | ioW | = I/O Bytes Written |
| * %MEM | = Memory Usage (RES) | DATA | = Data+Stack (KiB) | nsUSER | = USER namespace Inode | ioWop | = I/O Write Operations |
| * TIME+ | = CPU Time, hundredths | nMaj | = Major Page Faults | nsUTS | = UTS namespace Inode | AGID | = Autogroup Identifier |
| * COMMAND | = Command Name/Line | nMin | = Minor Page Faults | LXC | = LXC container name | AGNI | = Autogroup Nice Value |
| PPID | = Parent Process pid | nDRT | = Dirty Pages Count | RSan | = RES Anonymous (KiB) | STARTED | = Start Time from boot |
| UID | = Effective User Id | WCHAN | = Sleeping in Function | RSfd | = RES File-based (KiB) | ELAPSED | = Elapsed Running Time |
| RUID | = Real User Id | Flags | = Task Flags <sched.h> | RSlk | = RES Locked (KiB) | %CUU | = CPU Utilization |
| RUSER | = Real User Name | CGROUPS | = Control Groups | RSsh | = RES Shared (KiB) | %CUC | = Utilization + child |
| SUID | = Saved User Id | SUPGIDS | = Supp Groups Ids | CGNAME | = Control Group name | nsCGROUP | = CGRP namespace Inode |
| SUSER | = Saved User Name | SUPGRPS | = Supp Groups Names | NU | = Last Used NUMA node | nsTIME | = TIME namespace Inode |
| GID | = Group Id | TGID | = Thread Group Id | LOGID | = Login User Id | | |
| GROUP | = Group Name | OOMa | = OOMEM Adjustment | EXE | = Executable Path | | |

Перемещаем с помощью s и стрелок

Fields Management for window 4:Usr, 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 I | NI | = Nice Valu | OOMs | = OOMEM Sco | RSS | = Res Mem (|
| * PPID | = Parent Pr | nTH | = Number of | ENVIRON | = Environme | PSS | = Proportio |
| * UID | = Effective | P | = Last Used | vmj | = Major Fau | PSan | = Proportio |
| * USER | = Effective | TIME | = CPU Time | vmn | = Minor Fau | PSfd | = Proportio |
| * RUSER | = Real User | VIRT | = Virtual I | USED | = Res+Swap | PSsh | = Proportio |
| * TTY | = Controlli | SWAP | = Swapped S | nsIPC | = IPC names | USS | = Unique RS |
| * TIME+ | = CPU Time, | RES | = Resident | nsMNT | = MNT names | ioR | = I/O Bytes |
| * %CPU | = CPU Usage | CODE | = Code Size | nsNET | = NET names | ioRop | = I/O Read |
| * %MEM | = Memory Us | DATA | = Data+Stac | nsPID | = PID names | ioW | = I/O Bytes |
| * S | = Process S | SHR | = Shared Me | nsUSER | = USER name | ioWop | = I/O Write |
| * COMMAND | = Command N | nMaj | = Major Pag | nsUTS | = UTS names | AGID | = Autogroup |
| RUID | = Real User | nMin | = Minor Pag | LXC | = LXC conta | AGNI | = Autogroup |
| SUID | = Saved Use | nDRT | = Dirty Pag | RSan | = RES Anony | STARTED | = Start Tim |
| SUSER | = Saved Use | WCHAN | = Sleeping | RSfd | = RES File- | ELAPSED | = Elapsed R |
| GID | = Group Id | Flags | = Task Flag | RSlk | = RES Locke | %CUU | = CPU Utili |
| GROUP | = Group Nam | CGROUPS | = Control G | RSsh | = RES Share | %CUC | = Utilizati |
| PGRP | = Process G | SUPGIDS | = Supp Grou | CGNAME | = Control G | nsCGROUP | = CGRP name |
| TPGID | = Tty Proce | SUPGRPS | = Supp Grou | NU | = Last Used | nsTIME | = TIME name |
| SID | = Session I | TGID | = Thread Gr | LOGID | = Login Use | | |
| PR | = Priority | OOMa | = OOMEM Adi | EXE | = Executabl | | |

4. В другом терминальном окне выполняем команду `passwd` и оставляем ее в состоянии запроса текущего пароля

```
root@eltex-practice2-pg1-v6:~# passwd
New password: 
```

5. Перейдем в терминальное окно с `top` и выполним следующие действия:

- выведем все процессы, для которых реальным пользователем является пользователь, которым мы вошли в сеанс;
- найдем процесс, запущенный командой `passwd`;
- отправим этому процессу сигналы 15 (SIGTERM), 2 (SIGINT), 3 (SIGQUIT), 9 (SIGKILL)

```
top - 06:19:47 up 3 days, 3:59, 3 users, load average: 0.00, 0.00, 0.00
Tasks: 111 total, 1 running, 110 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni, 100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3916.0 total, 2261.6 free, 533.2 used, 1421.3 buff/cache
MiB Swap: 3185.0 total, 3184.7 free, 0.3 used. 3382.8 avail Mem
```

| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | COMMAND |
|-------|-------|----|----|-------|------|------|---|------|------|---------|---------|
| 42345 | user1 | 20 | 0 | 8644 | 5376 | 3840 | S | 0.0 | 0.1 | 0:00.02 | bash |
| 42458 | user1 | 20 | 0 | 11936 | 5888 | 3712 | R | 0.0 | 0.1 | 0:00.01 | top |
| 42493 | root | 20 | 0 | 9172 | 3712 | 3456 | S | 0.0 | 0.1 | 0:00.00 | passwd |
| 42496 | user1 | 20 | 0 | 11936 | 5888 | 3712 | R | 0.0 | 0.1 | 0:00.26 | top |

```

user1@eltex-practice2-pg1-v6:~$ kill -15 42493
user1@eltex-practice2-pg1-v6:~$ kill -2 42493
user1@eltex-practice2-pg1-v6:~$ kill -3 42493
user1@eltex-practice2-pg1-v6:~$ kill -9 42493
user1@eltex-practice2-pg1-v6:~$ 
user1@eltex-practice2-pg1-v6:~$ pgrep -a passwd
user1@eltex-practice2-pg1-v6:~$ passwd
Changing password for user1.
Current password: Killed
user1@eltex-practice2-pg1-v6:~$ 

```

6. Выполним команду `vim ~/file_task3.txt` и нажмем `Ctrl-Z`

```

user1@eltex-practice2-pg1-v6:~$ vim ~/file_task3.txt
[1]+  Stopped                  vim ~/file_task3.txt
user1@eltex-practice2-pg1-v6:~$ 

```

7. Выполним команду `sleep 600`, нажмем `Ctrl-Z` и выполним команду `jobs`

```

user1@eltex-practice2-pg1-v6:~$ sleep 600
^Z
[2]+  Stopped                  sleep 600
user1@eltex-practice2-pg1-v6:~$ jobs
[1]-  Stopped                  vim ~/file_task3.txt
[2]+  Stopped                  sleep 600
user1@eltex-practice2-pg1-v6:~$ 

```

8. Последнее задание (`sleep 600`) сделаем фоновым

```

user1@eltex-practice2-pg1-v6:~$ bg %2
[2]+  sleep 600 &
user1@eltex-practice2-pg1-v6:~$ 

```

9. Изменим число NICE у задания (`sleep 600`), сделав его равным 10

```

user1@eltex-practice2-pg1-v6:~$ renice -n 10 -p $(pgrep sleep)
42513 (process ID) old priority 0, new priority 10
user1@eltex-practice2-pg1-v6:~$ 

```

10. Проверим, что число NICE у этого задания изменилось

```

user1@eltex-practice2-pg1-v6:~$ ps -o pid,ni,cmd -C sleep
  PID  NI CMD
  42513  10 sleep 600
user1@eltex-practice2-pg1-v6:~$ 

```

11. Сделаем задание `vim ~/file_task3.txt` активным и выйдем из редактора


```
user1@eltex-practice2-pg1-v6:~$ fg %1
vim ~/file_task3.txt
user1@eltex-practice2-pg1-v6:~$
```

12. Отправим сигнал 15 (SIGTERM) заданию sleep 600 и выполним команду Jobs

```
user1@eltex-practice2-pg1-v6:~$ kill -15 %2
user1@eltex-practice2-pg1-v6:~$ jobs
[2]+  Terminated                  sleep 600
user1@eltex-practice2-pg1-v6:~$
```

13. Создадим перехватчик сигналов SIGINT и SIGQUIT внутри командного интерпретатора, который выводит сообщение «Меня голыми руками не возьмёшь!» (используйте встроенную команду trap) и отправим сигналы самому себе.

```
user1@eltex-practice2-pg1-v6:~$ trap 'echo "Меня голыми руками не возьмёшь!"' SIGINT SIGQUIT
user1@eltex-practice2-pg1-v6:~$ kill -2 $$
Меня голыми руками не возьмёшь!
user1@eltex-practice2-pg1-v6:~$ kill -3 $$
Меня голыми руками не возьмёшь!
user1@eltex-practice2-pg1-v6:~$
```

Раздел 2

1. Создадим скрипт на языке bash с именем template_task.sh, делающий следующее:

- При запуске проверяет, что имя скрипта не совпадает с template_task.sh, если совпадает - выходит с уведомлением «я бригадир, сам не работаю»
- При запуске дописывает в файл report_имя_скрипта_без_полного_пути.log в рабочем каталоге информацию: [PID] ДАТА ВРЕМЯ Скрипт запущен
- Генерирует случайное число от 30 до 1800 и ждет такое количество секунд
- Дописывает в файл report_имя_скрипта_без_полного_пути.log сообщение: [PID] ДАТА ВРЕМЯ Скрипт завершился, работал N минут

```
user1@eltex-practice2-pg1-v6:~$ touch template_task.sh
user1@eltex-practice2-pg1-v6:~$ nano template_task.sh
```

```

#!/bin/bash

script_name=$(basename "$0")
if [ "$script_name" = "template_task.sh" ]; then
    echo "я бригадир, сам не работаю"
    exit 1
fi

log_file="report_${script_name%.*}.log"

echo "[$$] $(date '+%Y-%m-%d %H:%M:%S') Скрипт запущен" >> "$log_file"

wait_seconds=$(( RANDOM % 1771 + 30 ))

start_time=$(date +%s)

sleep "$wait_seconds"

end_time=$(date +%s)
actual_time=$(( end_time - start_time ))

echo "[$$] $(date '+%Y-%m-%d %H:%M:%S') Скрипт завершился, работал $actual_time секунд" >> "$log_file"

user1@eltex-practice2-pg1-v6:~$ chmod +x template_task.sh
user1@eltex-practice2-pg1-v6:~$ ./template_task.sh
я бригадир, сам не работаю
user1@eltex-practice2-pg1-v6:~$ cp template_task.sh test_task.sh
user1@eltex-practice2-pg1-v6:~$ chmod +x test_task.sh
user1@eltex-practice2-pg1-v6:~$ ./test_task.sh
user1@eltex-practice2-pg1-v6:~$ cat report_test_task.log
[43568] 2025-07-14 10:51:44 Скрипт запущен
[43581] 2025-07-14 10:53:43 Скрипт запущен
[43581] 2025-07-14 10:54:10 Скрипт завершился, работал 27 минут
[43603] 2025-07-14 10:56:54 Скрипт запущен
[43603] 2025-07-14 10:57:21 Скрипт завершился, работал 27 минут
[43622] 2025-07-14 11:01:11 Скрипт запущен
[43634] 2025-07-14 11:03:53 Скрипт запущен
[43656] 2025-07-14 11:16:05 Скрипт запущен
[43656] 2025-07-14 11:16:43 Скрипт завершился, работал 38 секунд
user1@eltex-practice2-pg1-v6:~$ 

```

2. Создадим скрипт на языке bash с именем observer.sh, читающий файл конфигурации со списком скриптов observer.conf, проверяющим их наличие в списке работающих процессов поиском в /proc и запускающих их в отключенном от терминала режиме (nohup) в случае отсутствия в нем. Информация о перезапуске дописываем в файл observer.log


```

user1@eltex-practice2-pg1-v6:~$ touch observer.sh
user1@eltex-practice2-pg1-v6:~$ nano observer.sh
user1@eltex-practice2-pg1-v6:~$ touch observer.conf
user1@eltex-practice2-pg1-v6:~$ nano observer.conf
user1@eltex-practice2-pg1-v6:~$ chmod +x observer.sh
user1@eltex-practice2-pg1-v6:~$ ./observer.sh
user1@eltex-practice2-pg1-v6:~$ cat observer.log
[2025-07-14 11:27:17] Перезапущен скрипт: script1.sh
[2025-07-14 11:27:17] Перезапущен скрипт: script2.sh
[2025-07-14 11:27:17] Перезапущен скрипт: /path/to/script3.sh
user1@eltex-practice2-pg1-v6:~$ █

! /bin/bash

# Файлы конфигурации и логов
CONFIG_FILE="observer.conf"
LOG_FILE="observer.log"

while IFS= read -r script_name || [ -n "$script_name" ]; do
    [ -z "$script_name" ] && continue
    [[ "$script_name" =~ ^# ]] && continue

    pgrep -f "$script_name" >/dev/null 2>&1
    if [ $? -ne 0 ]; then
        nohup bash "$script_name" >/dev/null 2>&1 &
        echo "[$(date '+%Y-%m-%d %H:%M:%S')] Перезапущен скрипт: $script_name" >> "$LOG_FILE"
    fi
done < "$CONFIG_FILE"

```

3. Настроим запуск observer.sh посредством cron по расписанию – 1 раз в минуту.

```

# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow  command
* * * * * /home/user1/observer.sh >>/home/user1/observer.log 2>&1

```

```

user1@eltex-practice2-pg1-v6:~$ tail -f observer.log
[2025-07-14 11:27:17] Перезапущен скрипт: /path/to/script3.sh
[2025-07-14 11:45:01] Перезапущен скрипт: script1.sh
[2025-07-14 11:45:01] Перезапущен скрипт: script2.sh
[2025-07-14 11:45:01] Перезапущен скрипт: /path/to/script3.sh
[2025-07-14 11:46:01] Перезапущен скрипт: script1.sh
[2025-07-14 11:46:01] Перезапущен скрипт: script2.sh
[2025-07-14 11:46:01] Перезапущен скрипт: /path/to/script3.sh
[2025-07-14 11:47:01] Перезапущен скрипт: script1.sh
[2025-07-14 11:47:01] Перезапущен скрипт: script2.sh
[2025-07-14 11:47:01] Перезапущен скрипт: /path/to/script3.sh

```

4. Создадим несколько символьных ссылок на файл `template_task.sh` с различными именами (рабочие задачи), добавим в файл конфигурации `observer.conf` соответствующие записи об этих задачах, включая исходный файл `template_task.sh`

```

user1@eltex-practice2-pg1-v6:~$ ln -s template_task.sh backup_task.sh
user1@eltex-practice2-pg1-v6:~$ ln -s template_task.sh cleanup_task.sh
user1@eltex-practice2-pg1-v6:~$ ln -s template_task.sh report_task.sh
user1@eltex-practice2-pg1-v6:~$ ln -s template_task.sh monitor_task.sh
user1@eltex-practice2-pg1-v6:~$ ls -l *task.sh
lrwxrwxrwx 1 user1 user1 16 Jul 14 11:55 backup_task.sh -> template_task.sh
lrwxrwxrwx 1 user1 user1 16 Jul 14 11:56 cleanup_task.sh -> template_task.sh
lrwxrwxrwx 1 user1 user1 16 Jul 14 11:56 monitor_task.sh -> template_task.sh
lrwxrwxrwx 1 user1 user1 16 Jul 14 11:56 report_task.sh -> template_task.sh
-rwxrwxr-x 1 user1 user1 567 Jul 14 11:18 template_task.sh
-rwxrwxr-x 1 user1 user1 565 Jul 14 11:15 test_task.sh
user1@eltex-practice2-pg1-v6:~$ nano observer.conf
user1@eltex-practice2-pg1-v6:~$ chmod +x *task.sh
user1@eltex-practice2-pg1-v6:~$ ./observer.sh
user1@eltex-practice2-pg1-v6:~$ tail -f observer.log
[2025-07-14 11:56:01] Перезапущен скрипт: /path/to/script3.sh
[2025-07-14 11:57:01] Перезапущен скрипт: script1.sh
[2025-07-14 11:57:01] Перезапущен скрипт: script2.sh
[2025-07-14 11:57:01] Перезапущен скрипт: /path/to/script3.sh
[2025-07-14 11:58:01] Перезапущен скрипт: backup_task.sh
[2025-07-14 11:58:01] Перезапущен скрипт: cleanup_task.sh
[2025-07-14 11:58:01] Перезапущен скрипт: report_task.sh
[2025-07-14 11:58:01] Перезапущен скрипт: monitor_task.sh
[2025-07-14 11:58:01] Перезапущен скрипт: template_task.sh
[2025-07-14 11:58:07] Перезапущен скрипт: template_task.sh

```