

Подключитесь к серверу для выполнения практических работ, используя клиент для протокола ssh: ssh, putty, smartty (попробуйте их все и остановитесь на наиболее удобном для вас).

```
PS C:\Users\Ruslan> ssh eltex-pg1-v6@217.71.138.1 -p 44556
eltex-pg1-v6@217.71.138.1's password:
Linux eltex-2025-summer 6.1.0-40-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.153-1 (2025-09-20) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
eltex-pg1-v6@eltex-2025-summer: $
```

Запустите новую сессию утилиты screen, с именем по умолчанию, посмотрите список подключенных пользователей командой w, отключитесь от сессии.

```
eltex-pg1-v6@eltex-2025-summer:~$ w
17:58:03 up 2:20, 39 users, load average: 0.09, 0.06, 0.02
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
tech      pts/0    37.193.179.176  15:39    1:16m  0.02s  0.02s sshd: tech [priv]
eltex-pg  pts/2    217.71.131.234  17:26    1:07   0.02s  0.02s -bash
eltex-pg  pts/3    178.130.143.197 17:28    29:54  0.00s  ?      -bash
eltex-pg  pts/4    89.113.140.71   17:57    0:00s  0.01s  0.01s -bash
eltex-pg  pts/5    176.59.145.254  17:30    27:37  0.00s  ?      -bash
eltex-pg  pts/6    217.71.139.234  17:37    6:37   0.00s  ?      screen
eltex-pg  pts/8    178.178.206.36  17:46    57:00s 0.01s  ?      screen -S top
eltex-pg  pts/9    217.71.131.234  17:43    3:00s  0.00s  ?      screen
eltex-pg  pts/10   217.71.139.234  17:34    7:54   0.00s  ?      screen
eltex-pg  pts/11   217.71.131.234  17:34    1:15   0.01s  ?      screen -r top
eltex-pg  pts/13   217.71.131.234  17:53    1:53   0.00s  ?      screen
eltex-pg  pts/15   :pts/25:S.1     17:48    1:10   0.11s  0.11s top
eltex-pg  pts/17   91.79.222.224   17:38    19:54  0.00s  ?      -bash
eltex-pg  pts/18   178.178.206.36  17:38    19:57  0.00s  ?      -bash
eltex-pg  pts/19   89.113.141.142  17:38    4:18   0.01s  ?      screen
eltex-pg  pts/20   176.59.146.129  17:38    19:47  0.00s  ?      -bash
eltex-pg  pts/21   217.71.139.234  17:38    9:39   0.01s  0.01s -bash
eltex-pg  pts/22   :pts/42:S.0     17:58    0:00s  0.06s  0.06s w
eltex-pg  pts/23   217.71.131.237  17:39    3:00s  0.00s  ?      -bash
eltex-pg  pts/24   :pts/10:S.0     17:49    7:51   0.00s  ?      SCREEN
eltex-pg  pts/25   217.71.131.234  17:39    1:07   0.01s  ?      screen
eltex-pg  pts/27   :pts/6:S.0      17:49    6:37   0.00s  ?      SCREEN
eltex-pg  pts/28   176.59.145.254  17:43    11:00s 0.00s  ?      screen
eltex-pg  pts/29   :pts/25:S.0     17:43    5:39   0.00s  0.08s SCREEN
eltex-pg  pts/31   :pts/28:S.0     17:44    11:00s 0.01s  0.03s SCREEN
eltex-pg  pts/32   :pts/19:S.0     17:48    4:18   0.00s  ?      SCREEN
eltex-pg  pts/33   217.71.131.237  17:45    32:00s 0.01s  ?      screen
eltex-pg  pts/38   176.59.146.129  17:50    11:00s 0.01s  ?      screen -r session1
eltex-pg  pts/40   217.71.131.237  17:52    43:00s 0.00s  ?      screen
eltex-pg  pts/42   :pts/9:S.0      17:51    3:00s  0.01s  ?      screen -r first
eltex-pg  pts/43   :pts/38:S.0     17:53    41:00s 0.00s  0.19s SCREEN -S session1
eltex-pg  pts/44   :pts/33:S.0     17:52    32:00s 0.00s  ?      SCREEN
eltex-pg  pts/45   185.210.141.98  17:52    10:00s 0.01s  0.01s -bash
eltex-pg  pts/47   :pts/13:S.0     17:53    1:53   0.00s  ?      SCREEN
eltex-pg  pts/48   :pts/8:S.0      17:55    57:00s 0.05s  0.05s top
eltex-pg  pts/46   217.71.139.234  17:55    27:00s 0.01s  0.01s -bash
eltex-pg  pts/49   :pts/40:S.0     17:56    43:00s 0.00s  ?      SCREEN
eltex-pg  pts/51   :pts/11:S.0     17:56    1:18   0.00s  ?      SCREEN -S top -d -m
eltex-pg  pts/53   :pts/40:S.1     17:57    43:00s 0.00s  ?      /usr/bin/bash
eltex-pg1-v6@eltex-2025-summer:~$
```

Запустите отсоединенную сессию утилиты screen, при этом запустите в этой сессии команду top. Назовите сессию именем «top».

```
eltex-pg1-v6@eltex-2025-summer: $ screen -S top -d -m
eltex-pg1-v6@eltex-2025-summer: $ screen -r top_

top - 18:00:12 up 2:22, 44 users, load average: 0.01, 0.03, 0.01
Tasks: 293 total, 1 running, 290 sleeping, 2 stopped, 0 zombie
%Cpu(s): 0.1 us, 0.2 sy, 0.0 ni, 99.5 id, 0.3 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3914.7 total, 3352.4 free, 582.4 used, 193.6 buff/cache
MiB Swap: 976.0 total, 976.0 free, 0.0 used, 3332.2 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM     TIME+ COMMAND
 2564 eltex-p+  20   0  11652   5452  3300  S   0.3   0.1   0:00.99 top
 3468 eltex-p+  20   0  11640   5492  3344  S   0.3   0.1   0:00.12 top
 3516 eltex-p+  20   0  11796   5368  3220  R   0.3   0.1   0:00.09 top
    1 root      20   0 168244  12852  9184  S   0.0   0.3   0:00.68 systemd
    2 root      20   0      0      0      0  S   0.0   0.0   0:00.00 kthreadd
    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_par_gp
    5 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 slub_flushwq
    6 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 netns
   10 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 mm_percpu_wq
   11 root      20   0      0      0      0  I   0.0   0.0   0:00.00 rcu_tasks_kthread
   12 root      20   0      0      0      0  I   0.0   0.0   0:00.00 rcu_tasks_rude_kthread
   13 root      20   0      0      0      0  I   0.0   0.0   0:00.00 rcu_tasks_trace_kthread
   14 root      20   0      0      0      0  S   0.0   0.0   0:00.02 ksoftirqd/0
   15 root      20   0      0      0      0  I   0.0   0.0   0:00.10 rcu_preempt
   16 root      rt   0      0      0      0  S   0.0   0.0   0:00.02 migration/0
   18 root      20   0      0      0      0  S   0.0   0.0   0:00.00 cpuhp/0
   19 root      20   0      0      0      0  S   0.0   0.0   0:00.00 cpuhp/1
   20 root      rt   0      0      0      0  S   0.0   0.0   0:00.23 migration/1
   21 root      20   0      0      0      0  S   0.0   0.0   0:00.01 ksoftirqd/1
   23 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 kworker/1:0H-events_highpri
   24 root      20   0      0      0      0  S   0.0   0.0   0:00.00 cpuhp/2
   25 root      rt   0      0      0      0  S   0.0   0.0   0:00.23 migration/2
   26 root      20   0      0      0      0  S   0.0   0.0   0:00.01 ksoftirqd/2
   28 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 kworker/2:0H-events_highpri
   29 root      20   0      0      0      0  S   0.0   0.0   0:00.00 cpuhp/3
   30 root      rt   0      0      0      0  S   0.0   0.0   0:00.23 migration/3
   31 root      20   0      0      0      0  S   0.0   0.0   0:00.01 ksoftirqd/3
   33 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 kworker/3:0H-events_highpri
   38 root      20   0      0      0      0  S   0.0   0.0   0:00.00 kdevtmpfs
   39 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 inet_frag_wq
   40 root      20   0      0      0      0  S   0.0   0.0   0:00.00 kauditd
   41 root      20   0      0      0      0  S   0.0   0.0   0:00.00 khungtaskd
   42 root      20   0      0      0      0  S   0.0   0.0   0:00.00 oom_reaper
   43 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 writeback
   44 root      20   0      0      0      0  S   0.0   0.0   0:00.11 kcompactd0
   45 root      25   5      0      0      0  S   0.0   0.0   0:00.00 ksm
   47 root      39  19      0      0      0  S   0.0   0.0   0:00.07 khugepaged
   48 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 kintegrityd
   49 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 kblockd
   50 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 blkcg_punt_bio
   51 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 tpm_dev_wq
   52 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 edac-poller
   53 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 devfreq_wq
   54 root      0 -20      0      0      0  I   0.0   0.0   0:00.01 kworker/1:1H-kblockd
   55 root      20   0      0      0      0  S   0.0   0.0   0:00.00 kswapd0
   61 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 kthrotld
   63 root      0 -20      0      0      0  I   0.0   0.0   0:00.00 acpi thermal pm
```

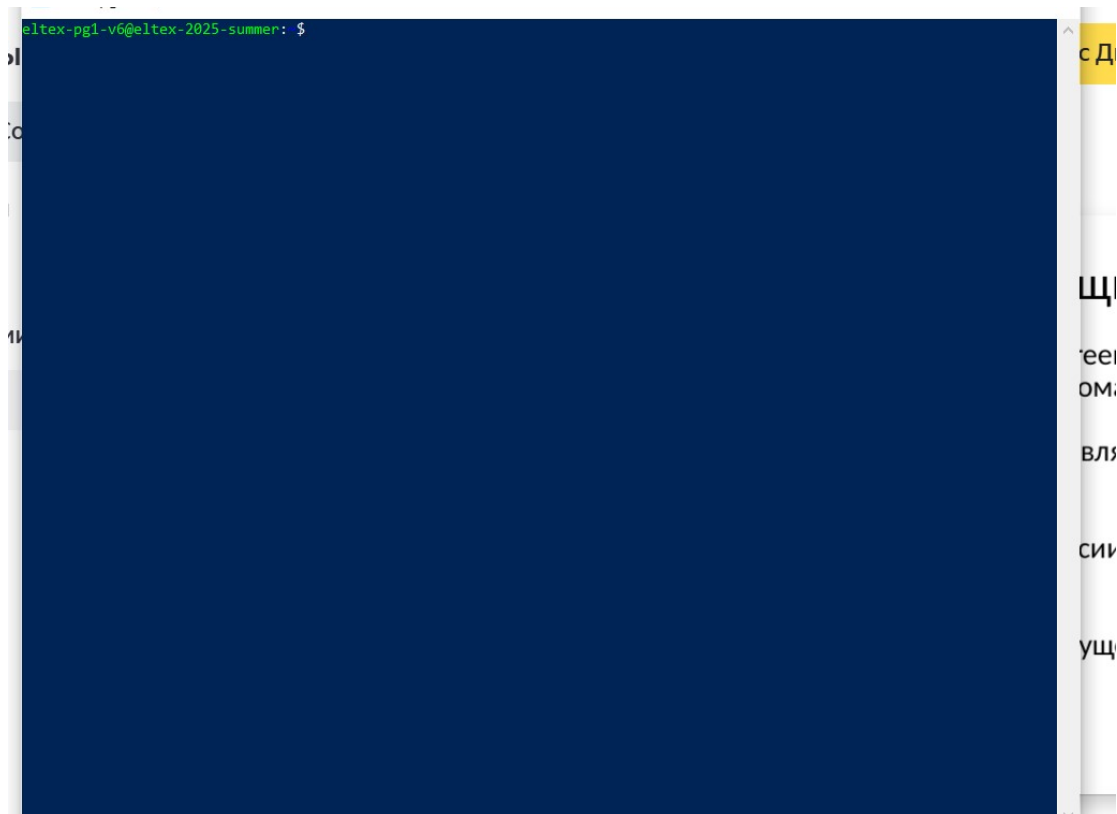
Получите список сессий, созданных утилитой screen.

```
eltex-pg1-v6@eltex-2025-summer: $ screen -ls
There are screens on:
  3511.top                (10/09/2025 05:59:32 PM)      (Attached)
  3033.pts-9.eltex-2025-summer (10/09/2025 05:51:35 PM)      (Detached)
2 Sockets in /run/screen/S-eltex-pg1-v6.
eltex-pg1-v6@eltex-2025-summer: $
```

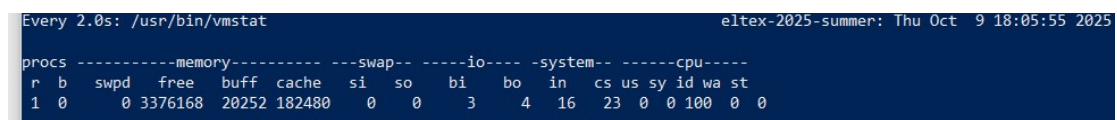
Подсоединитесь к сессии top.

```
eltex-pg1-v6@eltex-2025-summer: $ screen -r top_
```

Создайте еще одно окно в сессии top.



В созданном окне выполните команду:
`watch /usr/bin/vmstat`



Получите список окон.



Переименуйте второе окно как «vmstat».

Num	Name
0	bash
1	vmstat

Перейдите в окно, в котором работает top.

```

eltex-pg1-v6@eltex-2025-summer:~$
eltex-pg1-v6@eltex-2025-summer:~$
eltex-pg1-v6@eltex-2025-summer:~$
eltex-pg1-v6@eltex-2025-summer:~$
eltex-pg1-v6@eltex-2025-summer:~$ "*****s****"
bash: s: command not found
eltex-pg1-v6@eltex-2025-summer:~$
eltex-pg1-v6@eltex-2025-summer:~$ fgf:
bash: fgf:: command not found
eltex-pg1-v6@eltex-2025-summer:~$
eltex-pg1-v6@eltex-2025-summer:~$
eltex-pg1-v6@eltex-2025-summer:~$

```

Отсоединитесь от сессии top.

```

Type "screen [-d] -r [pid.]tty.host" to resume one of them.
eltex-pg1-v6@eltex-2025-autumn: $ screen -S top -d -m
eltex-pg1-v6@eltex-2025-autumn: $ screen -r top
There are several suitable screens on:
  1750918.top      (10/11/2025 09:47:33 AM)      (Detached)
  1750163.top      (10/11/2025 09:46:32 AM)      (Detached)
  4397.top         (10/09/2025 06:04:49 PM)      (Detached)
  3511.top         (10/09/2025 05:59:31 PM)      (Attached)
Type "screen [-d] -r [pid.]tty.host" to resume one of them.
eltex-pg1-v6@eltex-2025-autumn: $ screen -r 4397
[detached from 4397.top]
eltex-pg1-v6@eltex-2025-autumn: $

```

Запустите новую сессию и запустите в окне команду:
vi report_part1.txt



14. Отсоединитесь от сессии и получите список сессий.

```
[screen is terminating]
eltex-pg1-v6@eltex-2025-autumn: $ screen -ls
There are screens on:
  1753695.top2      (10/11/2025 09:51:25 AM)      (Detached)
  1750918.top      (10/11/2025 09:47:34 AM)      (Detached)
  1750163.top      (10/11/2025 09:46:33 AM)      (Detached)
  4397.top         (10/09/2025 06:04:50 PM)      (Detached)
  3511.top         (10/09/2025 05:59:32 PM)      (Attached)
  3033.pts-9.eltex-2025-summer (10/09/2025 05:51:35 PM)      (Detached)
6 Sockets in /run/screen/S-eltex-pg1-v6.
eltex-pg1-v6@eltex-2025-autumn: $
```

15. Отключитесь от сервера, используя команду logout или комбинацию клавиш Ctrl+D

```
eltex-pg1-v6@eltex-2025-autumn:~$
logout
Connection to 217.71.138.1 closed.
PS C:\Users\Ruslan>
```

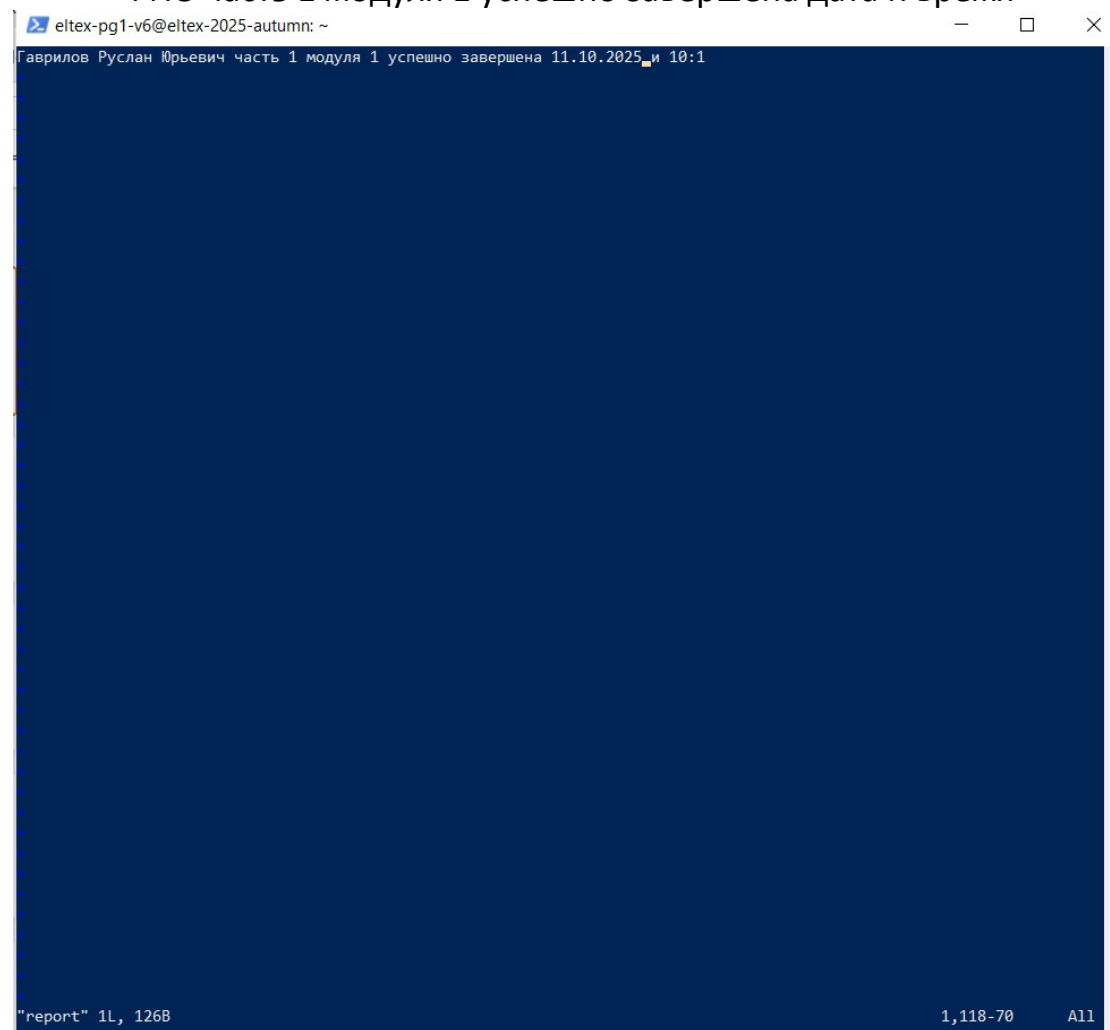
16. Подключитесь к серверу (как в п.1), и получите список сессий screen

```
eltex-pg1-v6@eltex-2025-autumn: ~$ screen -ls
logout
Connection to 217.71.138.1 closed.
PS C:\Users\Ruslan> ssh eltex-pg1-v6@217.71.138.1 -p 44556
eltex-pg1-v6@217.71.138.1's password:
Linux eltex-2025-autumn 6.1.0-40-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.153-1 (2025-09-20) x86_64

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the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sat Oct 11 09:44:13 2025 from 95.191.207.203
eltex-pg1-v6@eltex-2025-autumn: $ screen -ls
There are screens on:
 1753695.top2      (10/11/2025 09:51:24 AM)      (Detached)
 1750918.top      (10/11/2025 09:47:33 AM)      (Detached)
 1750163.top      (10/11/2025 09:46:32 AM)      (Detached)
 4397.top         (10/09/2025 06:04:49 PM)      (Detached)
 3511.top         (10/09/2025 05:59:31 PM)      (Attached)
 3033.pts-9.eltex-2025-summer (10/09/2025 05:51:34 PM)      (Detached)
6 Sockets in /run/screen/S-eltex-pg1-v6.
eltex-pg1-v6@eltex-2025-autumn: $
```

17. Подключитесь к сессии с редактором и запишите в файл
"ФИО часть 1 модуля 1 успешно завершена дата и время"



```
eltex-pg1-v6@eltex-2025-autumn: ~
Гаврилов Руслан Юрьевич часть 1 модуля 1 успешно завершена 11.10.2025_и 10:1

"report" 1L, 126B 1,118-70 All
```

18. Закройте редактор, сохранив файл и закройте все сессии screen.

0 sockets in /run/screen/S-eltex-pg1-v6.

eltex-pg1-v6@eltex-2025-autumn: \$ screen -S 1753695 -X quit

eltex-pg1-v6@eltex-2025-autumn: \$ screen -S 1750918 -X quit

eltex-pg1-v6@eltex-2025-autumn: \$ screen -S 1750163 -X quit

eltex-pg1-v6@eltex-2025-autumn: \$ screen -S 4397 -X quit

eltex-pg1-v6@eltex-2025-autumn: \$ screen -S 3511 -X quit

eltex-pg1-v6@eltex-2025-autumn: \$ screen -S 3033 -X quit

eltex-pg1-v6@eltex-2025-autumn: \$

eltex-pg1-v6@eltex-2025-autumn: \$ screen -ls

No Sockets found in /run/screen/S-eltex-pg1-v6.

eltex-pg1-v6@eltex-2025-autumn: \$ █