1. Создать файл /home/user/test.txt командой touch.

```
alex@Redmi:~$ pwd
/home/alex
alex@Redmi:~$ touch test.txt
alex@Redmi:~$ ls -l
total 0
-rw-r--r-- 1 alex alex 0 Oct  7 21:24 test.txt
```

2. Заполнить файл любым текстом размером не менее 1000 символов.

```
alex@Redmi:~$ echo "It goes without saying that humans mammals identifiable as those that stand upright and are comparatively advan
ced and capable of detailed thought have pretty remarkable bodies, given all that they've accomplished. Furthermore, an especially
intelligent human brain produced this text To be sure, humans have overcome predators, disease, and all sorts of other obstacles ov
er thousands of years. The head, or the spherical body part that contains the brain and rests at the top of the human body, has qui
te a few individual organs and body parts on it. (It should quickly be mentioned that hair occupies the space on top of the head, a
nd the ears, the organs responsible for hearing, are located on either side of the head.) From top to bottom, the eyebrows, or hori
zontal strips of hair that can be found above the eye, are the first components of the head. The eyes are below them, and are round
, orb-like organs that allow humans to see. The eyes make way for the nose, or an external sticking-out organ that plays an importa
nt part in the breathing and bacteria-elimination processes. Below that is the mouth, or a wide, cavernous organ that chews food, r
emoves bacteria, helps with breathing, and more. The mouth contains teeth, or small, white-colored, pointed body parts used to chew
 food, and the tongue, or a red-colored, boneless organ used to chew food and speak." >test.txt
alex@Redmi:~$ cat test.txt
It goes without saying that humans mammals identifiable as those that stand upright and are comparatively advanced and capable of d
etailed thought have pretty remarkable bodies, given all that they've accomplished. Furthermore, an especially intelligent human br
ain produced this text To be sure, humans have overcome predators, disease, and all sorts of other obstacles over thousands of year
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hing and bacteria-elimination processes. Below that is the mouth, or a wide, cavernous organ that chews food, removes bacteria, hel
ps with breathing, and more. The mouth contains teeth, or small, white-colored, pointed body parts used to chew food, and the tongu
e, or a red-colored, boneless organ used to chew food and speak.
```

3. Выполнить команду wc для созданного файла.

```
alex@Redmi:~$ wc test.txt
    1  231 1375 test.txt
```

4. Скопировать этот файл в другой каталог.

```
alex@Redmi:~$ cp test.txt test_direct
```

5. В исходном файле удалить случайным образом 200 символов.

```
alex@Redmi:~$ wc test.txt
    1  194 1175 test.txt
```

6. Выполнить команду diff для получившихся двух файлов.

```
alex@Redmi:~$ diff test.txt test_direct/test.txt
1c1
< It ithout saying that humans mammals identifiable as those that stand upright and are comparatively advanced and capable of detai
led thought have pretty remarkable bodies, given all that they've accomplished. Furthermore, an especially intelligent human brain
produced this text To be sure, humans have overcome predators, disease, and all sortacles over thousands of years. The head, or the
 spherical body part that contains the brain and rests individual organs and body parts on it. (It should quickly be mentioned that
 hair occupies the space on top of the head, and the ears, the organs responsible for hearing, are located on either side of the he
ad.) From , or horizontal strips of hair that can be found above the eye, are the first components of the head. The eyes are below
them, and are round, orb-like organs that allow humans to see. The eyes make way for the nose, or an external thing and bacteria-el
imination processes. Below that is the mouth, or a wide, cavernous organ that chews food, removes bacteria, helps with breathing, a
nd more. The mouth contains teeth, or small, white-colored, pointed body parts used to chew food, and  tongue, or a red-colored,
---
> It goes without saying that humans mammals identifiable as those that stand upright and are comparatively advanced and capable of
 detailed thought have pretty remarkable bodies, given all that they've accomplished. Furthermore, an especially intelligent human
brain produced this text To be sure, humans have overcome predators, disease, and all sorts of other obstacles over thousands of ye
ars. The head, or the spherical body part that contains the brain and rests at the top of the human body, has quite a few individua
l organs and body parts on it. (It should quickly be mentioned that hair occupies the space on top of the head, and the ears, the o
rgans responsible for hearing, are located on either side of the head.) From top to bottom, the eyebrows, or horizontal strips of h
air that can be found above the eye, are the first components of the head. The eyes are below them, and are round, orb-like organs
that allow humans to see. The eyes make way for the nose, or an external sticking-out organ that plays an important part in the bre
athing and bacteria-elimination processes. Below that is the mouth, or a wide, cavernous organ that chews food, removes bacteria, h
elps with breathing, and more. The mouth contains teeth, or small, white-colored, pointed body parts used to chew food, and the ton
gue, or a red-colored, boneless organ used to chew food and speak.
```

7. Выполнить побайтовое сравнение двух файлов.

```
alex@Redmi:~$ cmp test.txt test_direct/test.txt
test.txt test_direct/test.txt differ: byte 4, line 1
```

8. Напечатайте первый файл в восьмеричном формате.

```
alex@Redmi:~$ od test.txt
0000000 072111 064440 064164 072557 020164 060563 064571 063556
0000020 072040 060550 020164 072550 060555 071556 066440 066541
0000040 060555 071554 064440 062544 072156 063151 060551 066142
0000060 020145 071541 072040 067550 062563 072040 060550 020164
0000100 072163 067141 020144 070165 064562 064147 020164 067141
0000120 020144 071141 020145 067543 070155 071141 072141 073151
0000140 066145 020171 062141 060566 061556 062145 060440 062156
0000160 061440 070141 061141 062554 067440 020146 062544 060564
0000200 066151 062145 072040 067550 063565 072150 064040 073141
0000220 020145 071160 072145 074564 071040 066545 071141 060553
0000240 066142 020145 067542 064544 071545 020054 064547 062566
0000260 020156 066141 020154 064164 072141 072040 062550 023571
0000300 062566 060440 061543 066557 066160 071551 062550 027144
0000320 043040 071165 064164 071145 067555 062562 020054 067141
0000340 062440 070163 061545 060551 066154 020171 067151 062564
0000360 066154 063551 067145 020164 072550 060555 020156 071142
0000400 064541 020156 071160 062157 061565 062145 072040 064550
0000420 020163 062564 072170 052040 020157 062542 071440 071165
0000440 026145 064040 066565 067141 020163 060550 062566 067440
```

9. Посмотреть логи ядра.

```
alex@Redmi:~$ sudo dmesg
[    0.000000] Linux version 5.15.90.1-microsoft-standard-WSL2 (oe-user@oe-host) (x86_64-msft-linux-gcc (GCC) 9.3.0, GNU ld (GNU Bi
nutils) 2.34.0.20200220) #1 SMP Fri Jan 27 02:56:13 UTC 2023
[    0.000000] Command line: initrd=\initrd.img WSL_ROOT_INIT=1 panic=-1 nr_cpus=12 bonding.max_bonds=0 dummy.numdummies=0 fb_tunne
ls=none swiotlb=force console=hvc0 debug pty.legacy_count=0
[    0.000000] KERNEL supported cpus:
[    0.000000]   Intel GenuineIntel
[    0.000000]   AMD AuthenticAMD
[    0.000000]   Centaur CentaurHauls
[    0.000000] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point registers'
[    0.000000] x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
[    0.000000] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
[    0.000000] x86/fpu: xstate_offset[2]:  576, xstate_sizes[2]:  256
[    0.000000] x86/fpu: Enabled xstate features 0x7, context size is 832 bytes, using 'compacted' format.
[    0.000000] signal: max sigframe size: 1776
[    0.000000] BIOS-provided physical RAM map:
[    0.000000] BIOS-e820: [mem 0x0000000000000000-0x000000000009ffff] usable
[    0.000000] BIOS-e820: [mem 0x000000000000e000-0x000000000000e0fff] reserved
[    0.000000] BIOS-e820: [mem 0x0000000000100000-0x00000000001fffff] ACPI data
[    0.000000] BIOS-e820: [mem 0x0000000000200000-0x00000000f7ffffff] usable
[    0.000000] BIOS-e820: [mem 0x0000000100000000-0x00000001febfffff] usable
```

10. Посмотреть список сетевых интерфейсов.

```
alex@Redmi:~$ ls -l /sys/class/net
total 0
-rw-r--r-- 1 root root 4096 Oct  8 09:23 bonding_masters
lrwxrwxrwx 1 root root    0 Oct  8 09:23 eth0 -> ../../devices/LNXSYSTM:00/LNXSYBUS:00/ACPI0004:00/VMBUS:00/12389a98-d711-4e42-8154
-a86cf2b10ac4/net/eth0
lrwxrwxrwx 1 root root    0 Oct  8 09:29 lo -> ../../devices/virtual/net/lo
```

11. Вывести список всех установленных пакетов.

```
alex@Redmi:~$ dpkg -l
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name                Version              Architecture Description
+++-===================-====================-============-====================================================
ii  adduser             3.118ubuntu5         all          add and remove users and groups
ii  apparmor            3.0.4-2ubuntu2.1     amd64        user-space parser utility for AppArmor
ii  apport              2.20.11-0ubuntu82.3  all          automatically generate crash reports for de
ii  apport-symptoms     0.24                 all          symptom scripts for apport
ii  apt                 2.4.8                amd64        commandline package manager
ii  apt-utils           2.4.8                amd64        package management related utility programs
ii  base-files          12ubuntu4.2          amd64        Debian base system miscellaneous files
ii  base-passwd         3.5.52build1         amd64        Debian base system master password and grou
ii  bash                5.1-6ubuntu1         amd64        GNU Bourne Again SHell
ii  bash-completion     1:2.11-5ubuntu1      all          programmable completion for the bash shell
ii  bind9-dnsutils      1:9.18.1-1ubuntu1.2  amd64        Clients provided with BIND 9
ii  bind9-host          1:9.18.1-1ubuntu1.2  amd64        DNS Lookup Utility
```

12. Сделать жесткую ссылку для первого файла.

```
alex@Redmi:~$ ls -i test.txt
29377 test.txt
alex@Redmi:~$ ln test.txt linktest
alex@Redmi:~$ ls -i
29377 linktest  29377 test.txt  29366 test_direct
```

13. Узнать индексные дескрипторы ссылки и файла.

```
alex@Redmi:~$ ls -i test.txt linktest
29377 linktest  29377 test.txt
```

```
alex@Redmi:~$ dpkg -l
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name                Version              Architecture Description
+++-===================-====================-============-====================================================
ii  adduser             3.118ubuntu5         all          add and remove users and groups
ii  apparmor            3.0.4-2ubuntu2.1     amd64        user-space parser utility for AppArmor
ii  apport              2.20.11-0ubuntu82.3  all          automatically generate crash reports for de
ii  apport-symptoms     0.24                 all          symptom scripts for apport
ii  apt                 2.4.8                amd64        commandline package manager
ii  apt-utils           2.4.8                amd64        package management related utility programs
ii  base-files          12ubuntu4.2          amd64        Debian base system miscellaneous files
ii  base-passwd         3.5.52build1         amd64        Debian base system master password and grou
ii  bash                5.1-6ubuntu1         amd64        GNU Bourne Again SHell
ii  bash-completion     1:2.11-5ubuntu1      all          programmable completion for the bash shell
ii  bind9-dnsutils      1:9.18.1-1ubuntu1.2  amd64        Clients provided with BIND 9
ii  bind9-host          1:9.18.1-1ubuntu1.2  amd64        DNS Lookup Utility
```