```
alex@DESKTOP-6H6EC0A:~$ ssh-keygen -b 4096
Generating public/private rsa key pair.
Enter file in which to save the key (/home/alex/.ssh/id_rsa):
Created directory '/home/alex/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/alex/.ssh/id_rsa
Your public key has been saved in /home/alex/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:+dqkZ6fMQKTfrmhZ6Hsof/40+O4h122RvU7h2AMaZp4 alex@DESKTOP-6H6EC0A
The key's randomart image is:
+---[RSA 4096]----+
|                 |
|                 |
|        .        |
|     o .     o   |
|    ..S  + .o..  |
|    .o.++.+.=.o  |
|   . += OE..o*   |
|   . =.o#oo..o . |
|     ++==B@o   . |
+----[SHA256]-----+
alex@DESKTOP-6H6EC0A:~$ _
```

```
alex@ubuntuserver:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.100.9  netmask 255.255.255.0  broadcast 192.168.100.255
        inet6 fe80::a00:27ff:feb9:4565  prefixlen 64  scopeid 0x20<link>
        ether 08:00:27:b9:45:65  txqueuelen 1000  (Ethernet)
        RX packets 251  bytes 247842 (247.8 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
```

```
alex@DESKTOP-6H6EC0A:~$ ssh-copy-id alex@192.168.100.9
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/alex/.ssh/id_rsa.pub"
The authenticity of host '192.168.100.9 (192.168.100.9)' can't be established.
ED25519 key fingerprint is SHA256:vckIukKkGEh/Tu9cWw22LfEtW9rdE6TzpcrpgZ1TYyE.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
alex@192.168.100.9's password:

Number of key(s) added: 1

Now try logging into the machine, with:   "ssh 'alex@192.168.100.9'"
and check to make sure that only the key(s) you wanted were added.
```

```
alex@DESKTOP-6H6EC0A:~$ ssh alex@192.168.100.9
Enter passphrase for key '/home/alex/.ssh/id_rsa':
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.15.0-60-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Thu May 18 02:57:08 PM UTC 2023

  System load:  0.005859375      Processes:               114
  Usage of /:   42.3% of 11.21GB  Users logged in:         1
  Memory usage: 12%              IPv4 address for enp0s3: 192.168.100.9
  Swap usage:   0%


Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


Last login: Thu May 18 14:52:03 2023
alex@ubuntuserver:~$
```

Задача 2


```
root@ubuntuserver:~# adduser aliaksei
Adding user `aliaksei' ...
Adding new group `aliaksei' (1001) ...
Adding new user `aliaksei' (1001) with group `aliaksei' ...
Creating home directory `/home/aliaksei' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for aliaksei
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
root@ubuntuserver:~#
```

```
root@ubuntuserver:~# usermod -aG sudo aliaksei
root@ubuntuserver:~# id -Gn aliaksei
aliaksei sudo
root@ubuntuserver:~#
```

Задача 3.

```
root@ubuntuserver:~# nano /etc/sudoers
```

```
# See sudoers(5) for more information on "@include" directives:

@includedir /etc/sudoers.d

aliaksei ALL=(ALL) NOPASSWD: ALL_

^G Help        ^O Write Out  ^W Where Is   ^K Cut        ^T Execute
```

Задача 4.

```
alex@DESKTOP-6H6EC0A:~$ sudo su
[sudo] password for alex:
root@DESKTOP-6H6EC0A:/home/alex# cd
root@DESKTOP-6H6EC0A:~# iptables -L
# Warning: iptables-legacy tables present, use iptables-legacy to see them
Chain INPUT (policy ACCEPT)
target     prot opt source               destination

Chain FORWARD (policy ACCEPT)
target     prot opt source               destination

Chain OUTPUT (policy ACCEPT)
target     prot opt source               destination
root@DESKTOP-6H6EC0A:~# _
```

```
alex@DESKTOP-6H6EC0A:~$ ping 192.168.100.6
PING 192.168.100.6 (192.168.100.6) 56(84) bytes of data.
64 bytes from 192.168.100.6: icmp_seq=1 ttl=63 time=1.95 ms
64 bytes from 192.168.100.6: icmp_seq=2 ttl=63 time=1.88 ms
64 bytes from 192.168.100.6: icmp_seq=3 ttl=63 time=1.67 ms
^C
--- 192.168.100.6 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 1.669/1.832/1.945/0.118 ms
alex@DESKTOP-6H6EC0A:~$
```

```
target      prot opt source              destination
root@ubuntuserver:~# iptables -A INPUT -p tcp --dport ssh -j DROP
root@ubuntuserver:~# iptables -L
Chain INPUT (policy ACCEPT)
target      prot opt source              destination
DROP        tcp  --  anywhere            anywhere            tcp dpt:ssh

Chain FORWARD (policy ACCEPT)
target      prot opt source              destination

Chain OUTPUT (policy ACCEPT)
target      prot opt source              destination
root@ubuntuserver:~#
```

```
root@ubuntuserver:~# iptables -A INPUT -p tcp --dport 22 -j REJECT
root@ubuntuserver:~# iptables --list
Chain INPUT (policy ACCEPT)
target      prot opt source              destination
DROP        tcp  --  anywhere            anywhere            tcp dpt:ssh
REJECT      tcp  --  anywhere            anywhere            tcp dpt:ssh reject-with icmp-port-ur
achable

Chain FORWARD (policy ACCEPT)
target      prot opt source              destination

Chain OUTPUT (policy ACCEPT)
target      prot opt source              destination
root@ubuntuserver:~#
```

Задача 5.

```
alex@DESKTOP-6H6EC0A:/etc$ ls -la
total 724
drwxr-xr-x 73 root root     4096 May 23 17:33 .
drwxr-xr-x 19 root root     4096 May 23 17:33 ..
-rw-------  1 root root        0 May  2 00:35 .pwd.lock
drwxr-xr-x  2 root root     4096 May  2 00:35 PackageKit
drwxr-xr-x  4 root root     4096 May  2 00:35 X11
-rw-r--r--  1 root root     3028 May  2 00:35 adduser.conf
drwxr-xr-x  2 root root     4096 May  2 00:35 alternatives
drwxr-xr-x  3 root root     4096 May  2 00:35 apparmor
drwxr-xr-x  8 root root     4096 May  2 00:35 apparmor.d
drwxr-xr-x  3 root root     4096 May  2 00:35 apport
drwxr-xr-x  8 root root     4096 May  2 00:36 apt
-rw-r--r--  1 root root     2319 Jan  6  2022 bash.bashrc
-rw-r--r--  1 root root       45 Nov 11  2021 bash_completion
drwxr-xr-x  2 root root     4096 May  2 00:35 bash_completion.d
-rw-r--r--  1 root root      367 Dec 16  2020 bindresvport.blad
drwxr-xr-x  2 root root     4096 Apr  7  2022 binfmt.d
```

```
-rw-r--r--  1 root root      460 Dec  8  2021 zsh_command_not_found
alex@DESKTOP-6H6EC0A:/etc$ cd /usr
alex@DESKTOP-6H6EC0A:/usr$ ls
bin  games  include  lib  lib32  lib64  libexec  libx32  local  sbin  share  src
alex@DESKTOP-6H6EC0A:/usr$ cd /dev
alex@DESKTOP-6H6EC0A:/dev$ ls
autofs           kmsg          mem     ram12  ram9    tty     tty18  tty28  tty38  tty48  tty58  ttyS1   vhost-net
block            loop-control  net     ram13  random  tty0    tty19  tty29  tty39  tty49  tty59  ttyS2   vsock
bsg              loop0         null    ram14  rtc0    tty1    tty2   tty3   tty4   tty5   tty6   ttyS3   zero
btrfs-control    loop1         nvram   ram15  sda     tty10  tty20  tty30  tty40  tty50  tty60  urandom
console          loop2         ppp     ram2   sdb     tty11  tty21  tty31  tty41  tty51  tty61  vcs
cpu_dma_latency  loop3         ptmx    ram3   sg0     tty12  tty22  tty32  tty42  tty52  tty62  vcs1
cuse             loop4         pts     ram4   sg1     tty13  tty23  tty33  tty43  tty53  tty63  vcsa
dxg              loop5         ram0    ram5   shm     tty14  tty24  tty34  tty44  tty54  tty7   vcsa1
fd               loop6         ram1    ram6   stderr  tty15  tty25  tty35  tty45  tty55  tty8   vcsu
full             loop7         ram10   ram7   stdin   tty16  tty26  tty36  tty46  tty56  tty9   vcsu1
fuse             mapper        ram11   ram8   stdout  tty17  tty27  tty37  tty47  tty57  ttyS0  vfio
alex@DESKTOP-6H6EC0A:/dev$
```