

Verificarea existenței serviciului SSH:

```
sudo systemctl status ssh
```

```
robert@robert-VirtualBox:~$ sudo systemctl status ssh
[sudo] password for robert:
Unit ssh.service could not be found.
```

Actualizează lista locală cu informații despre pachetele disponibile din sursele de software configurate pe sistem:

```
sudo apt update
```

```
robert@robert-VirtualBox:~$ sudo apt update
Hit:1 http://ro.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://ro.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:4 http://ro.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:5 http://ro.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1,101 kB]
Get:6 http://ro.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [162 kB]
Get:7 http://ro.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
```

Instalăm pachetul openssh-server, adică serverul SSH care permite conectarea la acest sistem prin rețea, folosind protocolul SSH (Secure Shell):

```
sudo apt install openssh-server
```

```
robert@robert-VirtualBox:~$ sudo apt install openssh-server -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  ncurses-term openssh-sftp-server ssh-import-id
Suggested packages:
  molly-guard monkeysphere ssh-askpass
The following NEW packages will be installed:
  ncurses-term openssh-server openssh-sftp-server ssh-import-id
0 upgraded, 4 newly installed, 0 to remove and 111 not upgraded.
Need to get 832 kB of archives.
After this operation, 6,743 kB of additional disk space will be used.
Get:1 http://ro.archive.ubuntu.com/ubuntu noble-updates/main amd64 openssh-sftp-
```

Verificarea existenței serviciului SSH:

```
robert@robert-VirtualBox:~$ sudo systemctl status ssh
○ ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; disabled; preset: ena>
   Active: inactive (dead)
 TriggeredBy: ● ssh.socket
     Docs: man:sshd(8)
          man:sshd_config(5)
```

Activarea serviciului SSH pentru a porni automat: `sudo systemctl enable ssh`

```
robert@robert-VirtualBox:~$ sudo systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/system
d/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable ssh
Created symlink /etc/systemd/system/sshd.service → /usr/lib/systemd/system/ssh.s
ervice.
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service → /usr/l
ib/systemd/system/ssh.service.
```

Pornirea efectivă a serviciului SSH: `sudo systemctl start ssh`

```
robert@robert-VirtualBox:~$ sudo systemctl start ssh
robert@robert-VirtualBox:~$ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; enabled; preset: enab>
   Active: active (running) since Tue 2025-05-20 22:07:39 EEST; 3s ago
 TriggeredBy: ● ssh.socket
     Docs: man:sshd(8)
          man:sshd_config(5)
   Process: 21581 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
   Main PID: 21582 (sshd)
     Tasks: 1 (limit: 2271)
    Memory: 2.1M (peak: 2.3M)
       CPU: 23ms
    CGroup: /system.slice/ssh.service
           └─21582 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"
```

Permiterea traficului SSH în firewall (UFW): `sudo ufw allow ssh`

Instalarea pachetului net-tools pentru netstat: `sudo apt install net-tools`

Verificarea dacă serviciul SSH ascultă pe portul 22: `netstat -tln`

```
robert@robert-VirtualBox:~$ netstat -tln
(Not all processes could be identified, non-owned process info
 will not be shown, you would have to be root to see it all.)
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
PID/Program name
tcp        0      0 127.0.0.54:53           0.0.0.0:*               LISTEN
-
tcp        0      0 127.0.0.53:53           0.0.0.0:*               LISTEN
-
tcp        0      0 127.0.0.1:631           0.0.0.0:*               LISTEN
-
tcp6       0      0 :::22                   :::*                    LISTEN
-
tcp6       0      0 :::1:631                 :::*                    LISTEN
-
```

Verificarea adresei IP a mașinii Ubuntu

```
robert@robert-VirtualBox:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:b2:b6:33 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.164/24 brd 192.168.0.255 scope global dynamic noprefixroute enp0s3
        valid_lft 3576sec preferred_lft 3576sec
    inet6 fe80::a00:27ff:feb2:b633/64 scope link
        valid_lft forever preferred_lft forever
```

Am creat un folder Sites in Ubuntu: `mkdir -p ~/Sites`

Transferul de fişiere de pe Windows pe Ubuntu cu pscp, comandă rulată în Command Prompt (CMD) pe Windows:

`pscp -r "C:\Users\Robert\Desktop\Seminars*" robert@192.168.0.164:/home/robert/Sites/`

```
C:\Users\Robert>pscp -r "C:\Users\Robert\Desktop\Seminars\*" robert@192.168.0.164:/home/robert/Sites/
The host key is not cached for this server:
 192.168.0.164 (port 22)
You have no guarantee that the server is the computer you
think it is.
The server's ssh-ed25519 key fingerprint is:
  ssh-ed25519 255 SHA256:5a1HdYu6TAjs2SSq2Lsr9AuY6/7dbCjkMw0KsxlhxdA
If you trust this host, enter "y" to add the key to PSCP's
cache and carry on connecting.
If you want to carry on connecting just once, without adding
the key to the cache, enter "n".
If you do not trust this host, press Return to abandon the
connection.
Store key in cache? (y/n, Return cancels connection, i for more info) y
robert@192.168.0.164's password:

angajati.txt          | 0 kB | 0.9 kB/s | ETA: 00:00:00 | 100%
exercitii.txt         | 1 kB | 1.2 kB/s | ETA: 00:00:00 | 100%
script_1              | 0 kB | 0.1 kB/s | ETA: 00:00:00 | 100%
script_2              | 0 kB | 0.5 kB/s | ETA: 00:00:00 | 100%
solutii.txt           | 2 kB | 2.2 kB/s | ETA: 00:00:00 | 100%
angajati.txt          | 1 kB | 1.4 kB/s | ETA: 00:00:00 | 100%
exercitii.txt         | 1 kB | 1.1 kB/s | ETA: 00:00:00 | 100%
solutii.txt           | 1 kB | 1.8 kB/s | ETA: 00:00:00 | 100%
angajati.txt          | 0 kB | 0.9 kB/s | ETA: 00:00:00 | 100%
exercitii.txt         | 1 kB | 1.6 kB/s | ETA: 00:00:00 | 100%
script_1              | 0 kB | 0.0 kB/s | ETA: 00:00:00 | 100%
solutii.txt           | 2 kB | 2.4 kB/s | ETA: 00:00:00 | 100%
```

Verificarea existentei fişierelor de pe desktop in ubuntu:

```
robert@robert-VirtualBox:~$ ls ~/Sites
Sem_1  Sem_2  Sem_3  Sem_4  Sem_5  Sem_6  Sem_7
```