

proot su Android OS

Sistemi Operativi 2018/2019

Marco Tassarotto

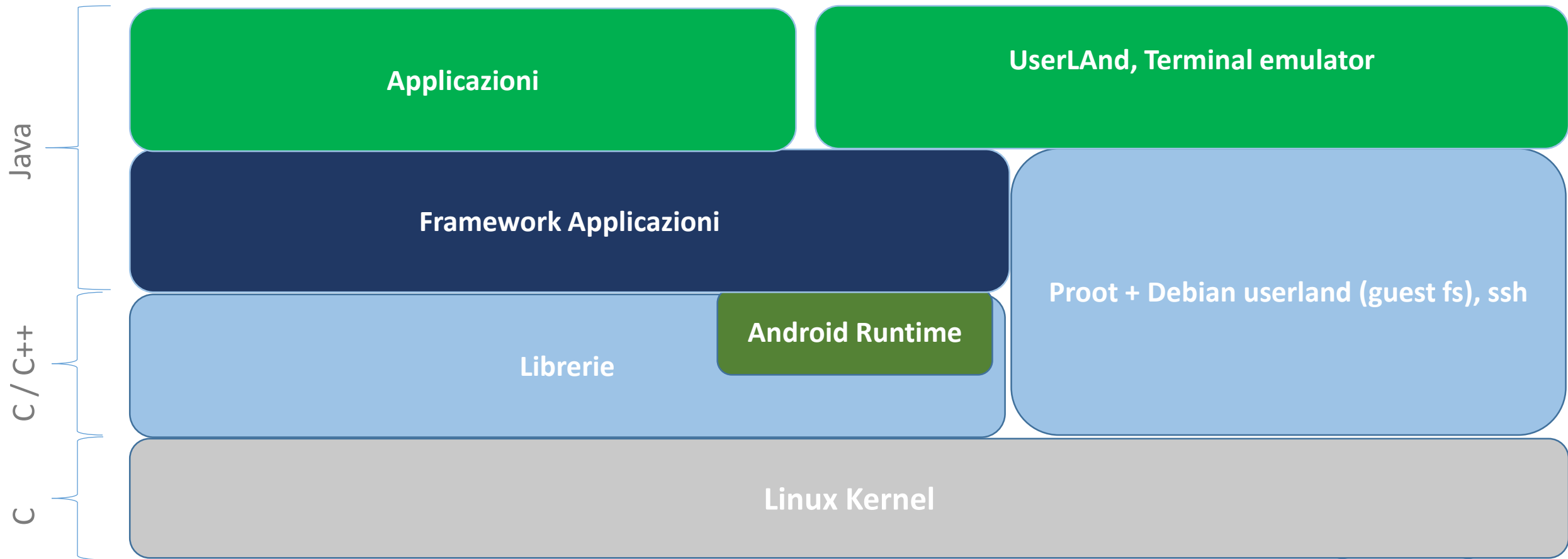
obiettivi

- Vedere che relazione c'è tra Android OS e Linux
- Utilizzare il networking di Android (Linux)
- Utilizzare python3 (senza conoscere Python)

info

- Useremo l'applicazione «UserLAnd» (install dallo store di Google) [non richiede root]
- <https://github.com/CypherpunkArmory/UserLAnd>
- UserLAnd utilizza:
- <https://github.com/termux/termux-app>
- Il componente fondamentale è proot
- <https://proot-me.github.io/>
- <https://github.com/proot-me/PRoot>

Architettura Android OS + proot



man proot

- PRoot is a **user-space** implementation of **chroot**, mount --bind, and binfmt_misc. This means that users don't need any privileges or setup to do things like using an arbitrary directory as the new root filesystem
- Technically PRoot relies on **ptrace**, an unprivileged system-call available in every Linux kernel.
- The new root file-system, a.k.a **guest rootfs**, typically contains a Linux distribution.
- By default PRoot confines the execution of programs to the guest rootfs only, however users can use the built-in mount/bind mechanism to access files and directories from the actual root file-system, a.k.a host rootfs, just as if they were part of the guest rootfs.

```
int chroot(const char *path);
```

`chroot()` changes the root directory of the calling process to that specified in `path`. This directory will be used for pathnames beginning with `/`. The root directory is inherited by all children of the calling process.

Only a privileged process (Linux: one with the `CAP_SYS_CHROOT` capability in its user namespace) may call `chroot()`.

Istruzioni in breve

- Installare l'applicazione UserLAnd (da Google Play Store)
- Lanciare la app, scegliere «Debian», scegliere ssh, specificare le credenziali (es. utente)
- Se funziona, apparirà terminale; fare login
- Installare i seguenti packages:

```
sudo apt-get install net-tools wget nano
```

Istruzioni in breve

- Se connessi in WiFi, scoprite l'indirizzo ip cercando un device di rete 'wlan0' (non è detto che abbia proprio questo nome) usando il comando:
ip address
- Se la rete WiFi permette la comunicazione tra peers, da un altro dispositivo potete connettervi al terminale Android:
ssh -p 2022 utente@<indirizzo_ip_wifi_android> (oppure usare putty da Windows)
- In alternativa, potete scaricare ngrok (vedere slide) per creare un tunnel usabile per connettersi da remoto al terminale Android

Istruzioni in breve

- Installare i seguenti package:

```
sudo apt-get install build-essential libssl-dev libffi-dev python-dev git
```

```
sudo apt-get install python3-pip python3-venv
```

Esempi su github

```
mkdir git
```

```
cd git
```

```
git clone https://github.com/marcotessarotto/exOpSys
```

```
cd exOpSys/01printargs
```

```
sh build.sh
```

```
cd ../..
```

```
cd exOpSys/01files
```

```
sh build.sh
```

```
build_dir/01files
```

```
....
```

python3

- Creazione python virtual enviroment, nella cartella \$HOME/my_env:

```
python3 -m venv my_env
```

- Attivare python virtual enviroment:

```
source my_env/bin/activate
```

- Installare una applicazione python:

```
pip install youtube-dl
```

- Installare ffmpeg (serve a youtube-dl)

```
sudo apt install ffmpeg
```

- Provare youtube-dl

```
youtube-dl .....
```

Istruzioni «estese» con slide



UserLand

UserLand Technologies, LLC

Strumenti

INSTALLA

4,4 ★

1194 recensioni

100.000+

Download

3

PEGI 3 ⓘ



Emula facilmente distribuzioni e applicazioni Linux.
Nessuna radice richiesta.

ALTRE INFO



UserLand

UserLand Technologies, LLC

Strumenti

10,22 MB/14,30 MB

71%



✓ Verificata da Play Protect

Annunci Correlati a questa app



XTrend - Fai trading con sol...
4,9 ★



Actions by Moleskine
3,3 ★



PayPal
4,4 ★



Fiver Freel
4,6 ★

Ti potrebbero anche piacere

ALTRO



UserLand

UserLand Technologies, LLC

Strumenti

DISINSTALLA

APRI

Annunci Correlati a questa app



XTrend - Fai trading con sol...
4,9 ★



Actions by Moleskine
3,3 ★



PayPal
4,4 ★



Fiver Freel
4,6 ★

Ti potrebbero anche piacere

ALTRO





Distribution

Arch



Debian



Ubuntu



Distribution

Alpine



Arch



Debian



Kali



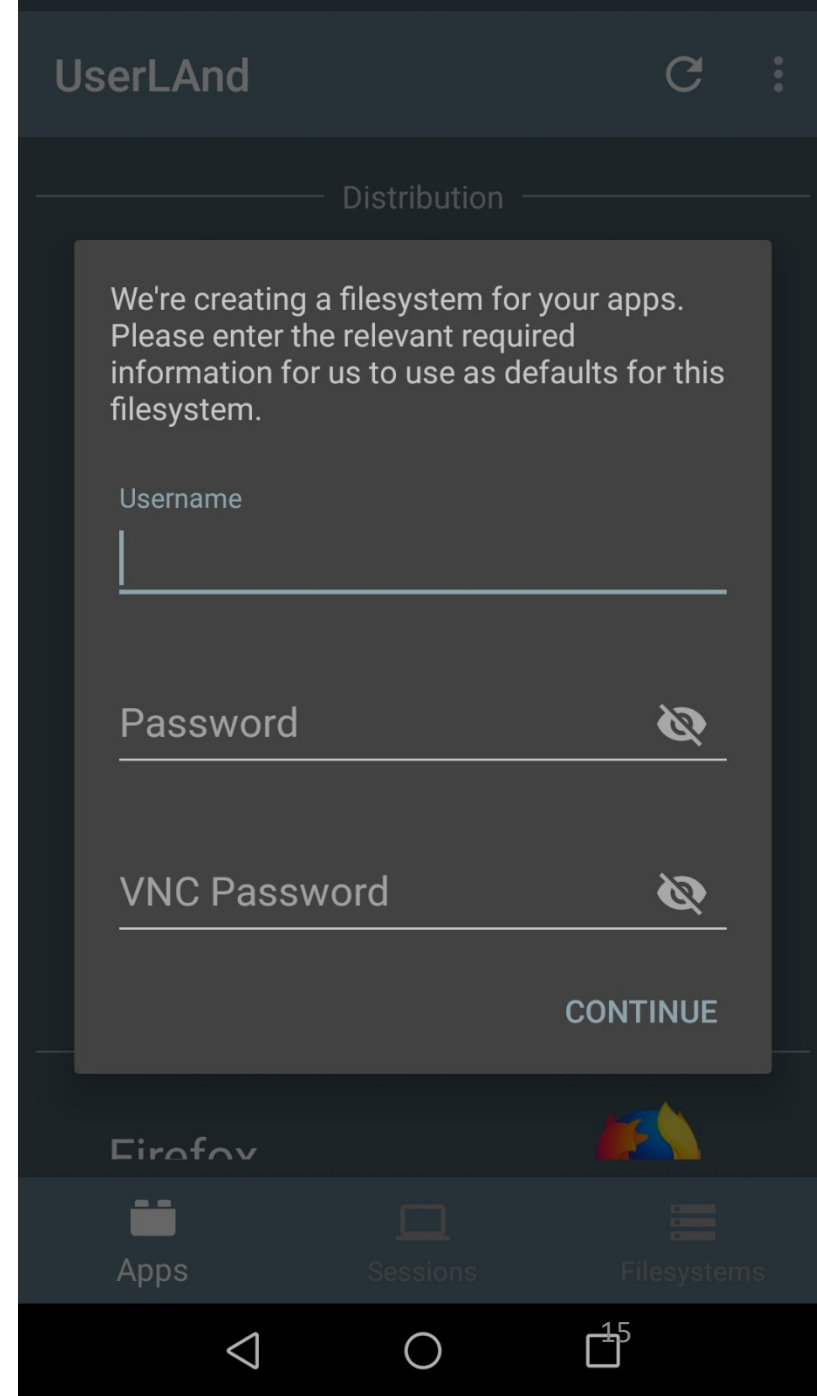
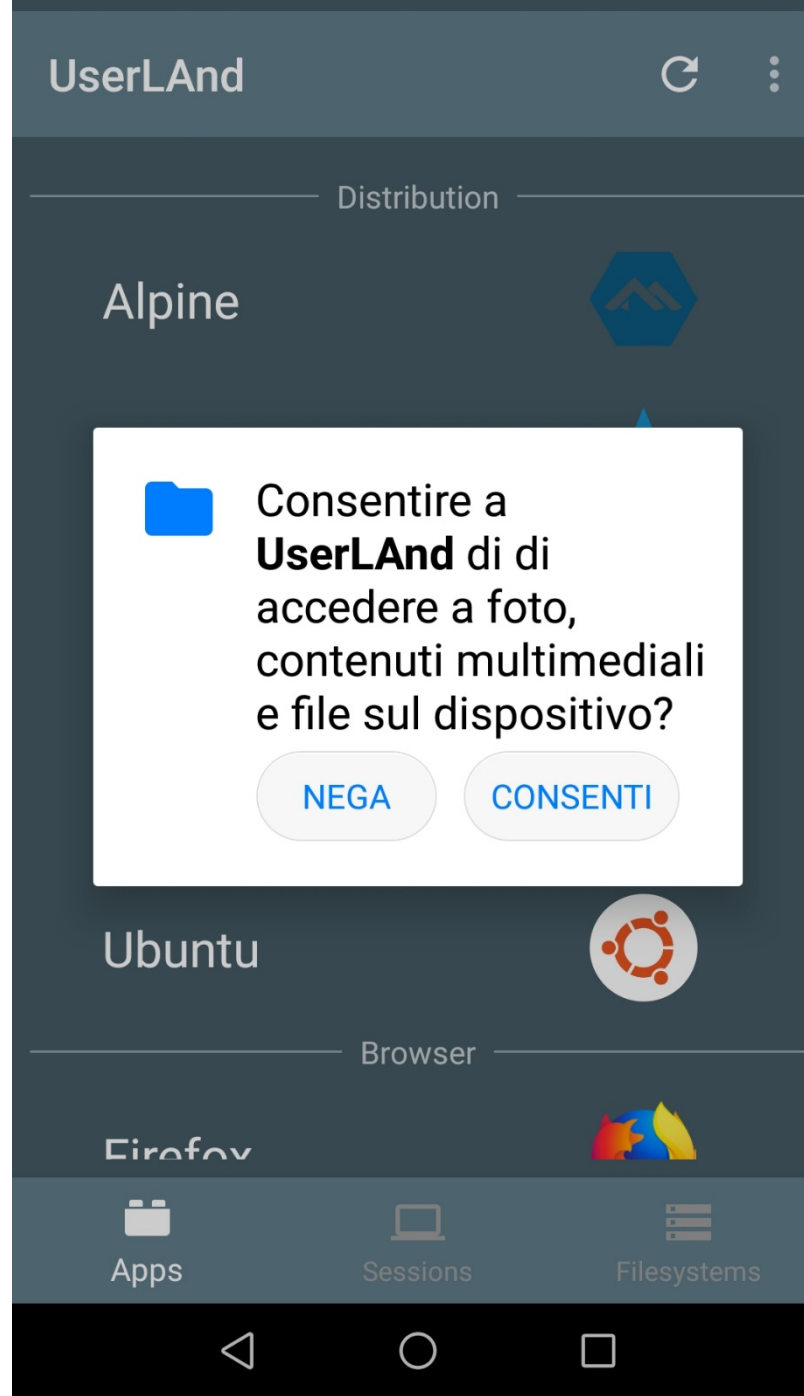
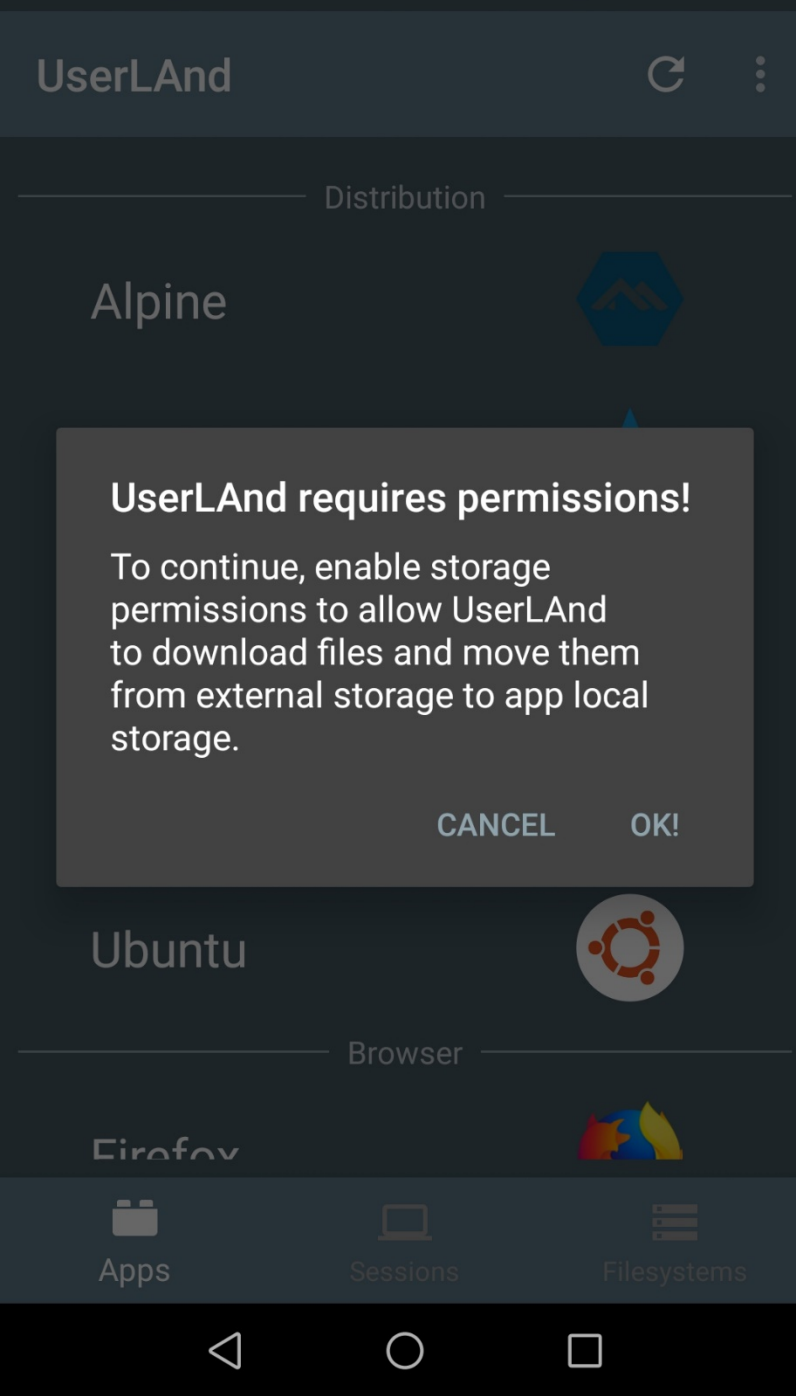
Ubuntu



Browser

Firefox





UserLAnd

Distribution

We're creating a filesystem for your apps.
Please enter the relevant required information for us to use as defaults for this filesystem.

Username

utente

Password

.....

VNC Password

.....

CONTINUE

Firefox

Apps

Sessions

Filesystems

UserLAnd

Distribution

Alpine

Please select a connection type:

☒ SSH

☐ VNC

☐ XSDL

CONTINUE

Firefox

Apps

Sessions

Filesystems

UserLAnd

Distribution

Alpine

Arch

Debian

Kali

Ubuntu

Firefox

Apps

Sessions

Filesystems

UserLAnd

Distribution

Alpine

Arch

Debian

Kali

Ubuntu

Browser

Firefox

Apps

Sessions

Filesystems

No wifi!

A large asset (~80mb) needs to be downloaded.

CANCEL

TURN ON WIFI

CONTINUE

UserLAnd

Distribution

Alpine

Arch

Debian

Kali

Ubuntu

Browser

Firefox

Apps

Sessions

Filesystems

Downloading required assets...
0 out of 2 complete

UserLAnd

Distribution

Alpine

Arch

Debian

Kali

Ubuntu

Browser

Firefox

Apps

Sessions

Filesystems

Downloading required assets...
1 out of 2 complete

12:37

Lunedì 24 giugno

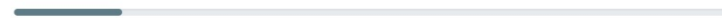


PocketCube-CEB6 Bluetooth Dati mobili Audio Rotazione autom.



↓ Gestione download ^

debian-rootfs.tar.gz-v0.0.3 Downloading v0.0.3.



ANNULLA

⚡ Sistema Android

Debug USB connesso

Tocca e disattiva il debug USB

🔄 Gestione telefono ✓

Modalità di risparmio energetico attiva Attività ap...

Traffico dati a schermo disatt. 79,73 KB usati a sc...

⚡ Impostazioni • Trasferimento file USB ✓

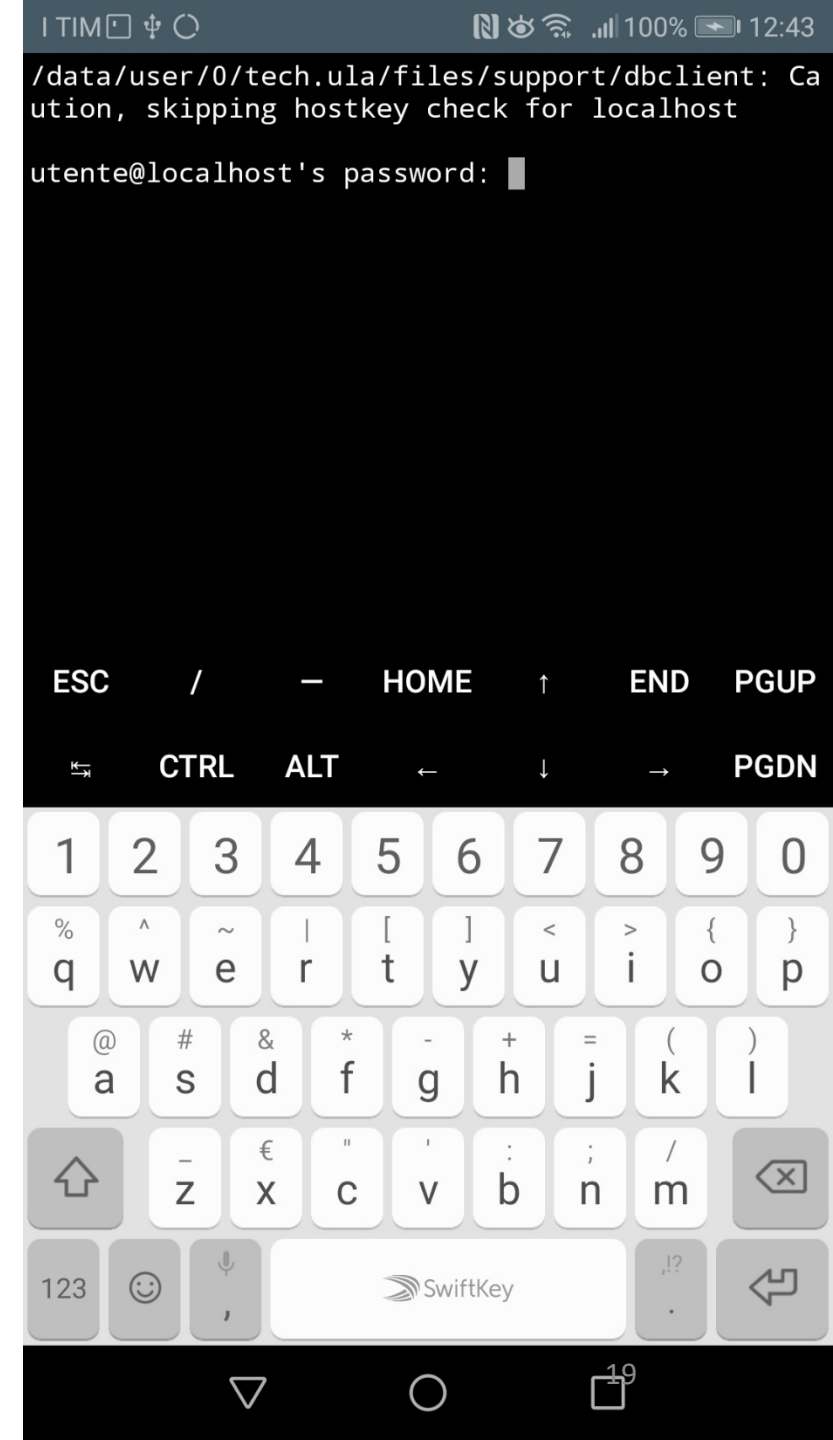
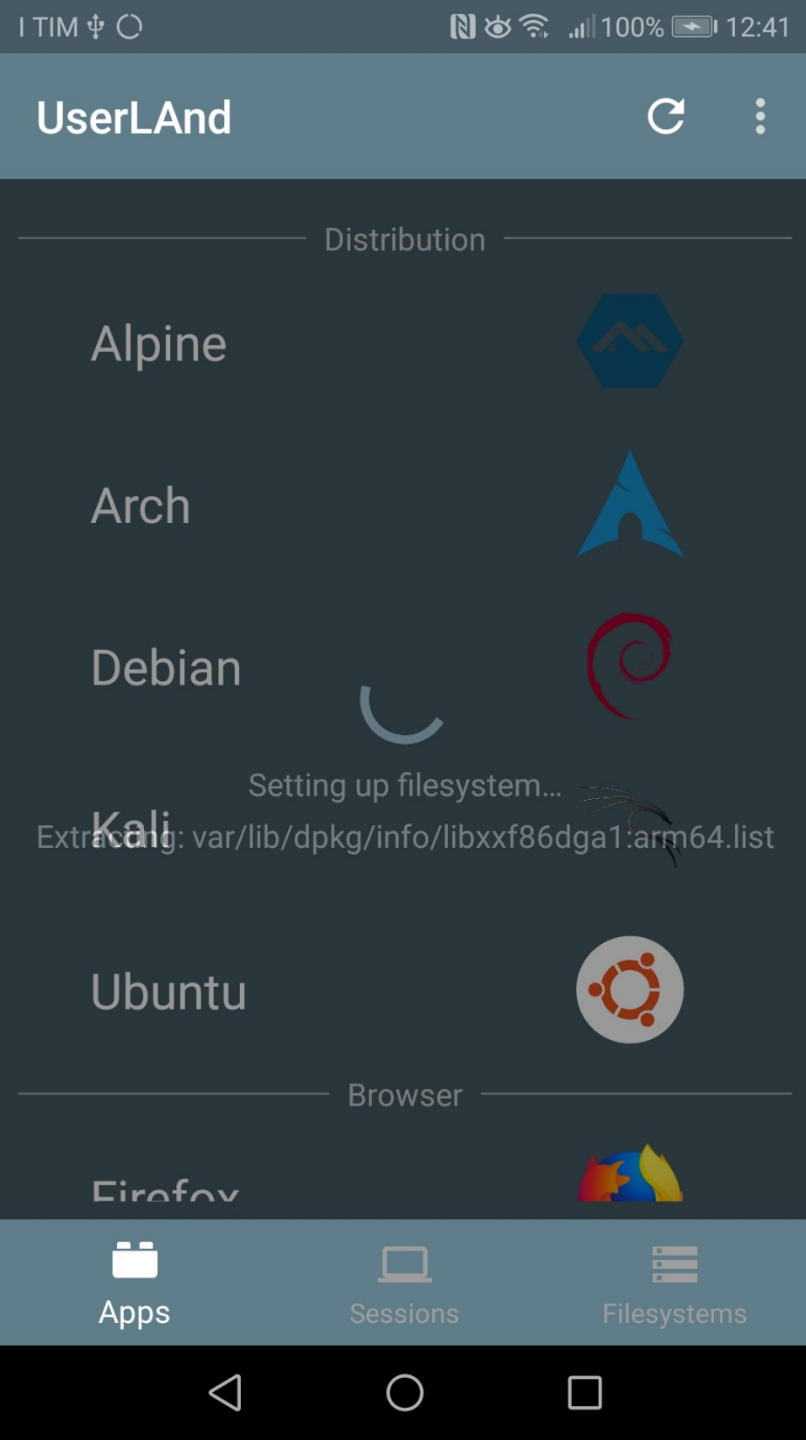
☁ Google • 28° a Trieste • 25 min fa ✓



.DEB

s390x





I TIM 100% 12:43

```
/data/user/0/tech.ula/files/support/dbclient: Caution, skipping hostkey check for localhost

utente@localhost's password:

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.
Welcome to Debian in UserLand!
utente@localhost:~$
```

ESC / - HOME ↑ END PGUP

↵ CTRL ALT ← ↓ → PGDN



I TIM 100% 12:44

```
tmpfs 1915172
676 1914496 1% /dev
none 1915172
0 1915172 0% /sys/fs/cgroup
tmpfs 1915172
0 1915172 0% /mnt
utente@localhost:~$ gcc
-bash: gcc: command not found
utente@localhost:~$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=51 time=107 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=51 time=97.3 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=51 time=93.9 ms
```

ESC / - HOME ↑ END PGUP

↵ CTRL ALT ← ↓ → PGDN



I TIM 100% 12:44

```
64 bytes from 8.8.8.8: icmp_seq=4 ttl=51 time=93.9 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=51 time=92.3 ms
64 bytes from 8.8.8.8: icmp_seq=6 ttl=51 time=101 ms
64 bytes from 8.8.8.8: icmp_seq=7 ttl=51 time=100 ms
64 bytes from 8.8.8.8: icmp_seq=8 ttl=51 time=98.2 ms
^C
--- 8.8.8.8 ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 7009ms
rtt min/avg/max/mdev = 92.381/98.119/107.624/4.661 ms
utente@localhost:~$
```

ESC / - HOME ↑ END PGUP

↵ CTRL ALT ← ↓ → PGDN



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.

Welcome to Debian in UserLAnd!

utente@localhost:~\$ ls

utente@localhost:~\$ df

Filesystem	1K-blocks	Used	Available	Use%	Mounted
on					
/dev/block/bootdevice/by-name/userdata	23455728	11651980	11175012	52%	/data
tmpfs	1915172	676	1914496	1%	/dev
none	1915172	0	1915172	0%	/sys/fs
/cgroup					
tmpfs	1915172	0	1915172	0%	/mnt

utente@localhost:~\$

```
--- 8.8.8.8 ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 7009ms
rtt min/avg/max/mdev = 92.381/98.119/107.624/4.661 ms
utente@localhost:~$ wget
-bash: wget: command not found
utente@localhost:~$ sudo apt install wget
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  ca-certificates libffi6 libgmp10 libgnutls30
  libhogweed4 libidn2-0 libp11-kit0 libpsl5
  libssl1.1 libtasn1-6 libunistring0 openssl
  publicsuffix
Suggested packages:
  gnutls-bin
```

ESC

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HOME

↑

END

PGUP

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PGDN

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Reading state information... Done

The following additional packages will be installed:

ca-certificates libffi6 libgmp10 libgnutls30
libhogweed4 libidn2-0 libp11-kit0 libpsl5
libssl1.1 libtasn1-6 libunistring0 openssl
publicsuffix

Suggested packages:

gnutls-bin

The following NEW packages will be installed:

ca-certificates libffi6 libgmp10 libgnutls30
libhogweed4 libidn2-0 libp11-kit0 libpsl5
libssl1.1 libtasn1-6 libunistring0 openssl
publicsuffix wget

0 upgraded, 14 newly installed, 0 to remove and 0 not upgraded.

Need to get 4540 kB of archives.

After this operation, 12.8 MB of additional disk space will be used.

Do you want to continue? [Y/n]

ESC

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HOME

↑

END

PGUP

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CTRL

ALT

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PGDN

```

libhogweed4 libidn2-0 libp11-kit0 libpsl5
libssl1.1 libtasn1-6 libunistring0 openssl
publicsuffix
Suggested packages:
  gnutls-bin
The following NEW packages will be installed:
  ca-certificates libffi6 libgmp10 libgnutls30
  libhogweed4 libidn2-0 libp11-kit0 libpsl5
  libssl1.1 libtasn1-6 libunistring0 openssl
  publicsuffix wget
0 upgraded, 14 newly installed, 0 to remove and 0 not upgraded.
Need to get 4540 kB of archives.
After this operation, 12.8 MB of additional disk space will be used.
Do you want to continue? [Y/n]
Get:1 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libssl1.1 arm64
1.1.0j-1~deb9u1 [1120 kB]
18% [1 libssl1.1 1002 kB/1120 kB 89%]

```

Get:4 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libffi6 arm64 3.2.1-6 [19.0 kB]
Get:5 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libp11-kit0 arm64 0.23.3-2 [90.8 kB]
Get:6 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libtasn1-6 arm64 4.10-1.1+deb9u1 [45.7 kB]
Get:7 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libgnutls30 arm64 3.5.8-5+deb9u4 [785 kB]
Get:8 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libunistring0 arm64 0.9.6+really0.9.3-0.1 [257 kB]
Get:9 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libidn2-0 arm64 0.16-1+deb9u1 [59.5 kB]
Get:10 http://cdn-fastly.deb.debian.org/debian stable/main arm64 libpsl5 arm64 0.17.0-3 [41.0 kB]
Get:11 http://cdn-fastly.deb.debian.org/debian stable/main arm64 wget arm64 1.18-5+deb9u3 [774 kB]
70% [11 wget 415 kB/774 kB 54%] 231 kB/s 5s

```
debconf: falling back to frontend: Readline
debconf: unable to initialize frontend: Readline
debconf: (This frontend requires a controlling tty.)
debconf: falling back to frontend: Teletype
Setting up openssl (1.1.0j-1~deb9u1) ...
Setting up libffi6:arm64 (3.2.1-6) ...
Setting up ca-certificates (20161130+nmu1+deb9u1) ...
debconf: unable to initialize frontend: Dialog
debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 76.)
debconf: falling back to frontend: Readline
debconf: unable to initialize frontend: Readline
debconf: (This frontend requires a controlling tty.)
debconf: falling back to frontend: Teletype
Updating certificates in /etc/ssl/certs...
```

Progress: [80%] [#####.....]

```
debconf: falling back to frontend: Teletype
Updating certificates in /etc/ssl/certs...
151 added, 0 removed; done.
Setting up libidn2-0:arm64 (0.16-1+deb9u1) ...
Setting up libpsl5:arm64 (0.17.0-3) ...
Setting up libhogweed4:arm64 (3.3-1+b2) ...
Setting up libp11-kit0:arm64 (0.23.3-2) ...
Setting up libgnutls30:arm64 (3.5.8-5+deb9u4) ...
Setting up wget (1.18-5+deb9u3) ...
Processing triggers for libc-bin (2.24-11+deb9u4) ...
Processing triggers for ca-certificates (20161130+nmu1+deb9u1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...#####...
done.
utente@localhost:~$
```

ESC

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HOME

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END

PGUP

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CTRL

ALT

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PGDN

27

```
151 added, 0 removed; done.
Setting up libidn2-0:arm64 (0.16-1+deb9u1) ...
Setting up libpsl5:arm64 (0.17.0-3) ...
Setting up libhogweed4:arm64 (3.3-1+b2) ...
Setting up libp11-kit0:arm64 (0.23.3-2) ...
Setting up libgnutls30:arm64 (3.5.8-5+deb9u4) ...
Setting up wget (1.18-5+deb9u3) ...
Processing triggers for libc-bin (2.24-11+deb9u4) ...
Processing triggers for ca-certificates (20161130+nmu1+deb9u1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...#####...
done.
utente@localhost:~$ uname -a
Linux localhost 4.4.23+ #1 SMP PREEMPT Fri Mar 1 12:42:37 CST 2019 aarch64 GNU/L
inux
utente@localhost:~$
```

ESC

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HOME

↑

END

PGUP

↩

CTRL

ALT

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PGDN 28



<https://dl.equinox.io/ngrok/ngrok/stable/archive>

15

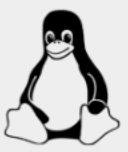


.TAR.GZ 32-bit



.ZIP 32-bit

Linux



.DEB ARM64



.DEB 64-bit



.DEB ppc64le



http

<https://bin.equinox.io/a/ggrL4WjsFes/ngrok-2.3.30-linux-arm64.deb>

15



Apri in un'altra scheda

Apri in scheda in incognito

Copia indirizzo link

Scarica link

Condividi link

Linux



```
Setting up libp11-kit0:arm64 (0.23.3-2) ...
Setting up libgnutls30:arm64 (3.5.8-5+deb9u4) ..
.
Setting up wget (1.18-5+deb9u3) ...
Processing triggers for libc-bin (2.24-11+deb9u4
) ...
Processing triggers for ca-certificates (2016113
0+nmu1+deb9u1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d..
.#####..]
done.
utente@localhost:~$
Linux localhost 4. Mar 1
12:42:37 CST 2019 aarch64 GNU/Linux
utente@localhost:~$ wget
```

Copy Paste More...

ESC / - HOME ↑ END PGUP

↩ CTRL ALT ← ↓ → PGDN



```
Setting up libgnutls30:arm64 (3.5.8-5+deb9u4) ..
.
Setting up wget (1.18-5+deb9u3) ...
Processing triggers for libc-bin (2.24-11+deb9u4
) ...
Processing triggers for ca-certificates (2016113
0+nmu1+deb9u1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d..
.#####..]
done.
utente@localhost:~$ uname -a
Linux localhost 4.4.23+ #1 SMP PREEMPT Fri Mar 1
12:42:37 CST 2019 aarch64 GNU/Linux
utente@localhost:~$ wget https://bin.equinox.io/
a/ggrL4WjsFes/ngrok-2.3.30-linux-arm64.deb
```

ESC / - HOME ↑ END PGUP

↩ CTRL ALT ← ↓ → PGDN



```
Setting up libidn2-0:arm64 (0.16-1+deb9u1) ...
Setting up libpsl5:arm64 (0.17.0-3) ...
Setting up libhogweed4:arm64 (3.3-1+b2) ...
Setting up libp11-kit0:arm64 (0.23.3-2) ...
Setting up libgnutls30:arm64 (3.5.8-5+deb9u4) ...
Setting up wget (1.18-5+deb9u3) ...
Processing triggers for libc-bin (2.24-11+deb9u4) ...
Processing triggers for ca-certificates (20161130+nmu1+deb9u1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...#####..]
done.
```

```
utente@localhost:~$ uname -a
```

```
Linux localhost 4.4.23+ #1 SMP PREEMPT Fri Mar 1 12:42:37 CST 2019 aarch64 GNU/Linux
```

```
utente@localhost:~$ wget https://bin.equinox.io/a/ggrL4WjsFes/ngrok-2.3.30-linux-arm64.deb
```

ESC

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HOME

↑

END

PGUP

↩

CTRL

ALT

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PGDN

32

Running hooks in /etc/ca-certificates/update.d...#####...]
done.

utente@localhost:~\$ uname -a

Linux localhost 4.4.23+ #1 SMP PREEMPT Fri Mar 1 12:42:37 CST 2019 aarch64 GNU/Linux

utente@localhost:~\$ wget https://bin.equinox.io/a/ggrL4WjsFes/ngrok-2.3.30-linux-arm64.deb

--2019-06-24 10:48:02-- https://bin.equinox.io/a/ggrL4WjsFes/ngrok-2.3.30-linux-arm64.deb

Resolving bin.equinox.io (bin.equinox.io)... 52.45.248.244, 52.71.139.107, 52.204.136.9, ...

Connecting to bin.equinox.io (bin.equinox.io)|52.45.248.244|:443... connected.

HTTP request sent, awaiting response... 200 OK

Length: 16260312 (16M) [application/octet-stream]

Saving to: 'ngrok-2.3.30-linux-arm64.deb'

ngrok-2.3.30-linux-a 5%[>] 805.83K 228KB/s eta 99s

ESC

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HOME

↑

END

PGUP

↩

CTRL

ALT

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PGDN

33

linux

```
utente@localhost:~$ wget https://bin.equinox.io/a/ggrL4WjsFes/ngrok-2.3.30-linux-arm64.deb
```

```
--2019-06-24 10:48:02-- https://bin.equinox.io/a/ggrL4WjsFes/ngrok-2.3.30-linux-arm64.deb
```

```
Resolving bin.equinox.io (bin.equinox.io)... 52.45.248.244, 52.71.139.107, 52.204.136.9, ...
```

```
Connecting to bin.equinox.io (bin.equinox.io)|52.45.248.244|:443... connected.
```

```
HTTP request sent, awaiting response... 200 OK
```

```
Length: 16260312 (16M) [application/octet-stream]
```

```
Saving to: 'ngrok-2.3.30-linux-arm64.deb'
```

```
ngrok-2.3.30-linux- 100%[=====>] 15.51M 374KB/s in 48s
```

```
2019-06-24 10:48:51 (333 KB/s) - 'ngrok-2.3.30-linux-arm64.deb' saved [16260312/16260312]
```

```
utente@localhost:~$ sudo dpkg -i ngrok-2.3.30-linux-arm64.deb
```

ESC

/

—

HOME

↑

END

PGUP

↩

CTRL

ALT

←

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PGDN 34

HTTP request sent, awaiting response... 200 OK
Length: 16260312 (16M) [application/octet-stream]
Saving to: 'ngrok-2.3.30-linux-arm64.deb'

ngrok-2.3.30-linux- 100%[=====>] 15.51M 374KB/s in 48s

2019-06-24 10:48:51 (333 KB/s) - 'ngrok-2.3.30-linux-arm64.deb' saved [16260312/16260312]

utente@localhost:~\$ sudo dpkg -i ngrok-2.3.30-linux-arm64.deb
utente@localhost:~\$ sudo dpkg -i ngrok-2.3.30-linux-arm64.deb

Selecting previously unselected package ngrok.
(Reading database ... 11325 files and directories currently installed.)
Preparing to unpack ngrok-2.3.30-linux-arm64.deb ...
Unpacking ngrok (2.3.30) ...
Setting up ngrok (2.3.30) ...

utente@localhost:~\$

ESC

/

—

HOME

↑

END

PGUP

↩

CTRL

ALT

←

↓

→

PGDN

35

ngrok

HOW IT WORKS

PRICING

DOWNLOAD

DOCS

ENTERPRISE SOLUTIONS

LOGIN

SIGN UP →

```
https://katesapp.ngrok.io
Welcome to Kate's Site!
It's currently under development...
$ ./ngrok http 3000
ngrok by @inconshreveable

Session Status      online
Account              Kate Libby (Plan: Pro)
Web Interface        http://127.0.0.1:4040
Forwarding            http://katesapp.ngrok.io -> localhost:3000
Forwarding            https://katesapp.ngrok.io -> localhost:3000
```

Email Address

Password

Password

Log in

[I forgot my password](#)

Or login with:



Log in with Github



Log in with Google

Don't have an account? [Sign up for free!](#)

Dashboard

Download

Docs

marcotts@gmail.com ▼

ngrok

Explore ngrok

Status

Reserved

Auth

Team

Admin

Billing

Want more from ngrok?

[Upgrade now](#)

from ngrok?

[N](#)

Installation

Download

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[OS X](#) [Windows](#)

[64-Bit](#) [Windows](#)

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2-Bit). [FreeBSD](#)

[FreeBSD \(32-B](#)

Unzip to i

OSX you can

3 Connect your account

Running this command will add your account's authtoken to your ngrok.yml file. This will give you more features and all open tunnels will be listed here in the dashboard.

```
$ ./ngrok authtoken [redacted]
```

4 Fire it up

Read [the documentation](#) on how to use ngrok. Try it out by running it from the command line:

```
$ ./ngrok help
```

VERSION:
2.3.30

AUTHOR:
inconshreveable - <alan@ngrok.com>

COMMANDS:

authtoken	save authtoken to configuration file
credits	prints author and licensing information
http	start an HTTP tunnel
start	start tunnels by name from the configuration file
tcp	start a TCP tunnel
tls	start a TLS tunnel
update	update ngrok to the latest version
version	print the version string

utente@localhost:~\$ ngrok authtoken

ESC

/

—

HOME

↑

END

PGUP

↵

CTRL

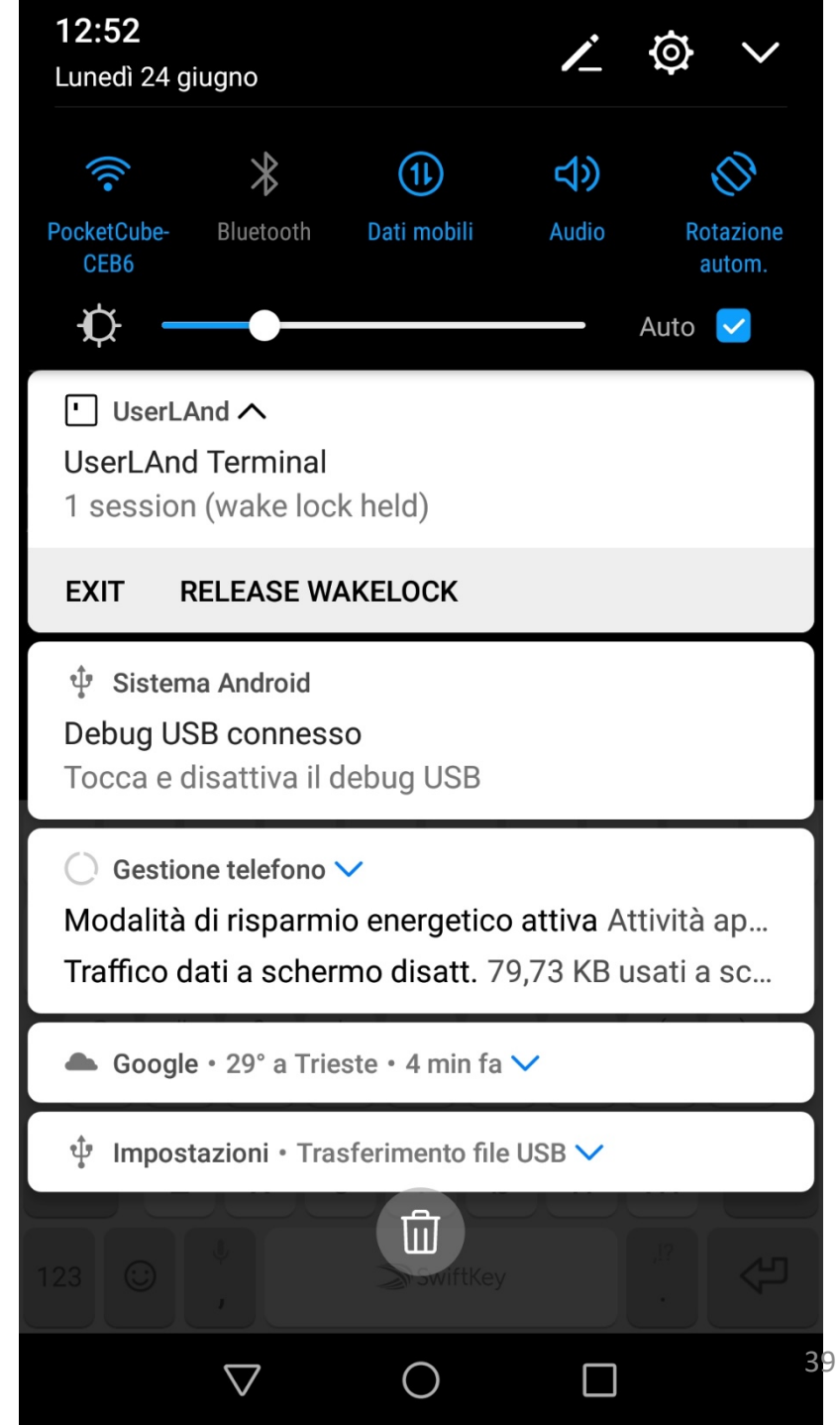
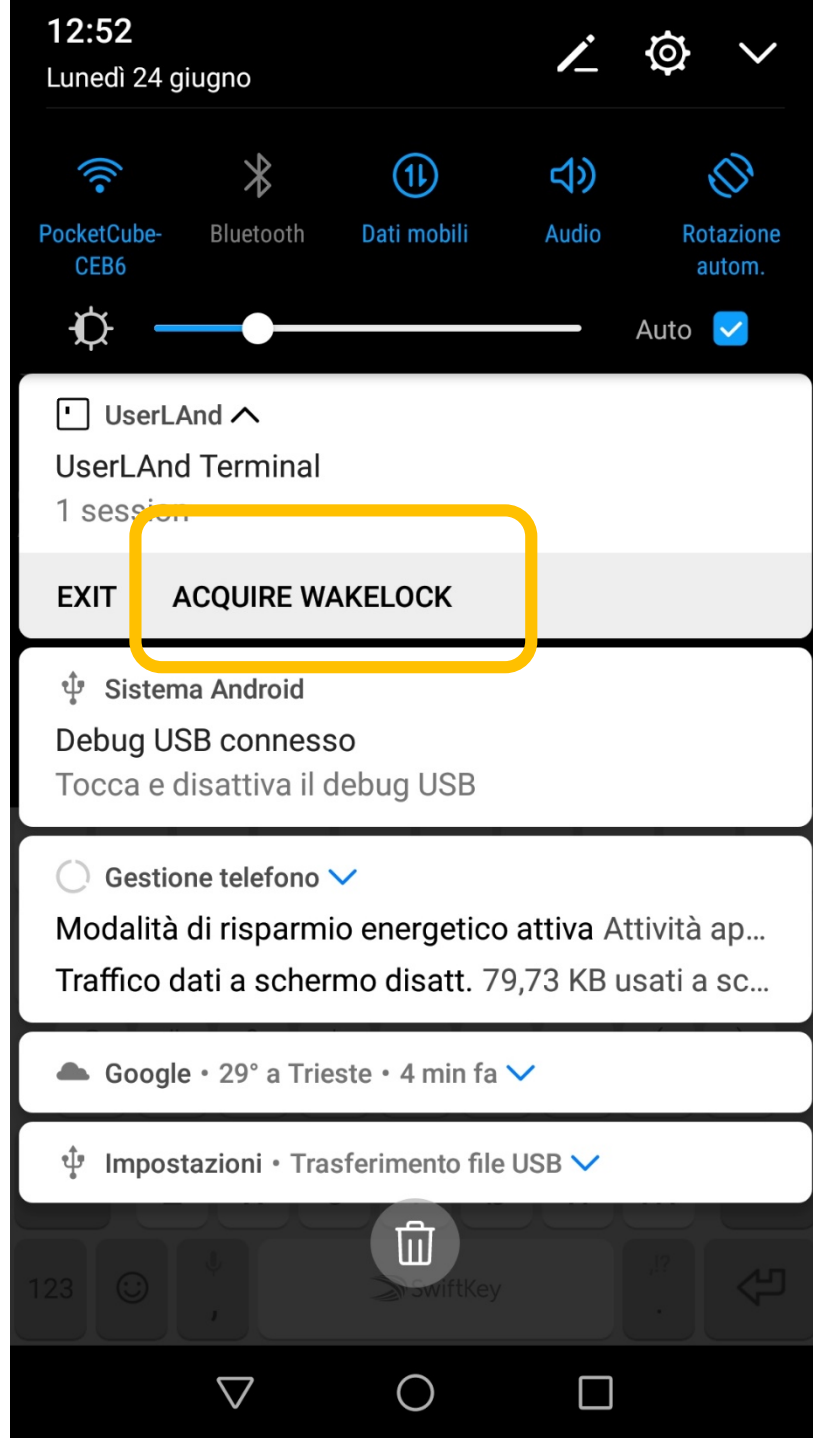
ALT

←

↓

→

PGDN 38



ngrok tcp 22

ngrok by @inconsreveable

(Ctrl+C to quit)

Session Status

Account

Version

Region

Web Interface

Forwarding

online

Marco Tessarotto (Plan: Free)

2.3.30

United States (us)

http://127.0.0.1:4040

tcp://0.tcp.ngrok.io:11059 -> localhost:22

Connections

ttd

opn

rt1

rt5

p50

p90

0

0

0.00

0.00

0.00

0.00

ESC

/

—

HOME

↑

END

PGUP



CTRL

ALT

←

↓

→

PGDN

41

Wi-Fi ip address

ip address

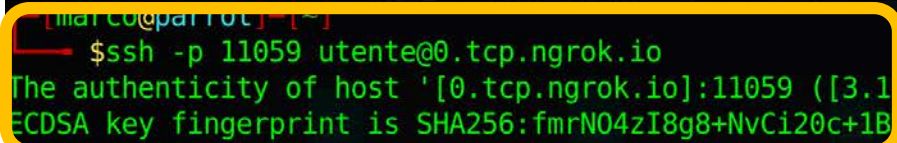
Se connessi in Wi-fi, cercare una interfaccia di rete del tipo «wlan0»

Recuperare l'indirizzo IP dell'interfaccia di rete

```
ssh -p 2022 utente@indirizzo_ip
```

ip address

```
utente@localhost: ~  
File Edit View Search Terminal Help  
12: rmnet_tun00: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:11 brd ff:ff:ff:ff:ff:ff  
13: rmnet_tun01: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:12 brd ff:ff:ff:ff:ff:ff  
14: rmnet_tun02: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:13 brd ff:ff:ff:ff:ff:ff  
15: rmnet_tun03: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:14 brd ff:ff:ff:ff:ff:ff  
16: rmnet_tun04: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:15 brd ff:ff:ff:ff:ff:ff  
17: rmnet_tun10: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:16 brd ff:ff:ff:ff:ff:ff  
18: rmnet_tun11: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:17 brd ff:ff:ff:ff:ff:ff  
19: rmnet_tun12: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:18 brd ff:ff:ff:ff:ff:ff  
20: rmnet_tun13: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:19 brd ff:ff:ff:ff:ff:ff  
21: rmnet_tun14: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:1a brd ff:ff:ff:ff:ff:ff  
22: rmnet_emc0: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 58:02:03:04:05:1b brd ff:ff:ff:ff:ff:ff  
23: sit0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1  
    link/sit 0.0.0.0 brd 0.0.0.0  
24: Hisilicon0: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000  
    link/ether 00:00:00:00:00:00 brd ff:ff:ff:ff:ff:ff  
25: wlan0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000  
    link/ether 04:4f:4c:d1:c5:2e brd ff:ff:ff:ff:ff:ff  
    inet 192.168.1.101/24 brd 192.168.1.255 scope global wlan0  
        valid_lft forever preferred_lft forever  
    inet6 fe80::44f:4c11:fed1:c52e/64 scope link  
        valid_lft forever preferred_lft forever  
26: p2p0: <NO-CARRIER,BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state DORMANT group default qlen 1000  
    link/ether 06:4f:4c:d1:c5:2e brd ff:ff:ff:ff:ff:ff  
    inet6 fe80::44f:4c11:fed1:c52e/64 scope link  
        valid_lft forever preferred_lft forever  
(my_env) utente@localhost:~$
```



```
marco@parrot:~$
```

```
$ssh -p 11059 utente@0.tcp.ngrok.io
```

```
The authenticity of host '[0.tcp.ngrok.io]:11059 ([3.19.3.150]:11059)' can't be established.
```

```
ECDSA key fingerprint is SHA256:fmrN04zI8g8+NvCi20c+1Ble5fLcGwR/x2CV8MpL/Dw.
```

```
Are you sure you want to continue connecting (yes/no)? yes
```

```
Warning: Permanently added '[0.tcp.ngrok.io]:11059,[3.19.3.150]:11059' (ECDSA) to the list of known hosts.
```

```
utente@0.tcp.ngrok.io's password:
```

```
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.
```

```
utente@localhost:~$
```

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`[marco@parrot]-[~]``$ssh -p 11059 utente@0.tcp.ngrok.io`

The authenticity of host '[0.tcp.ngrok.io]:11059 ([3.19.3.150]:11059)' can't be established.

ECDSA key fingerprint is SHA256:fmrN04zI8g8+NvCi20c+1BHe5fLcGwR/x2CV8MpL/Dw.

Are you sure you want to continue connecting (yes/no)? yes

Warning: Permanently added '[0.tcp.ngrok.io]:11059,[3.19.3.150]:11059' (ECDSA) to the list of known hosts.

utente@0.tcp.ngrok.io's password:

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.

utente@localhost:~\$

utente@localhost:~\$ df

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/block/bootdevice/by-name/userdata	23455728	11734944	11092048	52%	/data
tmpfs	1915172	676	1914496	1%	/dev
none	1915172	0	1915172	0%	/sys/fs/cgroup
tmpfs	1915172	0	1915172	0%	/mnt

utente@localhost:~\$ uname -a

Linux localhost 4.4.23+ #1 SMP PREEMPT Fri Mar 1 12:42:37 CST 2019 aarch64 GNU/Linux

utente@localhost:~\$

File Edit View Search Terminal Help

utente@localhost:~\$

utente@localhost:~\$ df

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/block/bootdevice/by-name/userdata	23455728	11734944	11092048	52%	/data
tmpfs	1915172	676	1914496	1%	/dev
none	1915172	0	1915172	0%	/sys/fs/cgroup
tmpfs	1915172	0	1915172	0%	/mnt

utente@localhost:~\$ uname -a

Linux localhost 4.4.23+ #1 SMP PREEMPT Fri Mar 1 12:42:37 CST 2019 aarch64 GNU/Linux

utente@localhost:~\$ gcc

-bash: gcc: command not found

utente@localhost:~\$ sudo apt install build-essential

Reading package lists... Done

Building dependency tree

Reading state information... Done

The following additional packages will be installed:

binutils bzip2 cpp cpp-6 dirmngr dpkg-dev fakeroot g++ g++-6 gcc gcc-6 gnupg gnupg-agent gnupg-l10n libalgorithm-diff-perl
libalgorithm-diff-xs-perl libalgorithm-merge-perl libasan3 libassuan0 libatomic1 libc-dev-bin libc6-dev libcc1-0 libdpkg-perl
libfakeroot libfile-fcntllock-perl libgcc-6-dev libgomp1 libisl15 libitm1 libksba8 libldap-2.4-2 libldap-common
liblocale-gettext-perl libmpc3 libmpfr4 libnpth0 libreadline7 libssl2-2 libssl2-modules libssl2-modules-db libsqlite3-0
libstdc++-6-dev libubsan0 linux-libc-dev make manpages manpages-dev patch pinentry-curses readline-common xz-utils

Suggested packages:

binutils-doc bzip2-doc cpp-doc gcc-6-locales dbus-user-session libpam-systemd pinentry-gnome3 tor debian-keyring gcc-6-doc
libstdc++6-6-dbg gcc-multilib autoconf automake libtool flex bison gdb gcc-doc libgcc1-dbg libgomp1-dbg libitm1-dbg
libatomic1-dbg libasan3-dbg liblsan0-dbg libtsan0-dbg libubsan0-dbg libcilkrts5-dbg libmpx2-dbg libquadmath0-dbg parcimonie
xloadimage sdaemon glibc-doc libssl2-modules-gssapi-mit | libssl2-modules-gssapi-heimdal libssl2-modules-ldap
libssl2-modules-otp libssl2-modules-sql libstdc++6-doc make-doc man-browser ed diffutils-doc pinentry-doc readline-doc

The following NEW packages will be installed:

binutils build-essential bzip2 cpp cpp-6 dirmngr dpkg-dev fakeroot g++ g++-6 gcc gcc-6 gnupg gnupg-agent gnupg-l10n
libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl libasan3 libassuan0 libatomic1 libc-dev-bin libc6-dev
libcc1-0 libdpkg-perl libfakeroot libfile-fcntllock-perl libgcc-6-dev libgomp1 libisl15 libitm1 libksba8 libldap-2.4-2
libldap-common liblocale-gettext-perl libmpc3 libmpfr4 libnpth0 libreadline7 libssl2-2 libssl2-modules libssl2-modules-db
libsqlite3-0 libstdc++-6-dev libubsan0 linux-libc-dev make manpages manpages-dev patch pinentry-curses readline-common xz-utils

0 upgraded, 53 newly installed, 0 to remove and 0 not upgraded.

Need to get 38.8 MB of archives.

After this operation, 149 MB of additional disk space will be used.

Do you want to continue? [Y/n]

File Edit View Search Terminal Help

```
Setting up binutils (2.28-5) ...
Setting up cpp-6 (6.3.0-18+deb9u1) ...
Setting up libc-dev-bin (2.24-11+deb9u4) ...
Setting up libsasl2-modules:arm64 (2.1.27~101-g0780600+dfsg-3) ...
Setting up manpages-dev (4.10-2) ...
Setting up libc6-dev:arm64 (2.24-11+deb9u4) ...
Setting up libassuan0:arm64 (2.4.3-2) ...
Setting up libitm1:arm64 (6.3.0-18+deb9u1) ...
Setting up cpp (4:6.3.0-4) ...
Setting up libgcc-6-dev:arm64 (6.3.0-18+deb9u1) ...
Setting up libstdc++-6-dev:arm64 (6.3.0-18+deb9u1) ...
Setting up fakeroot (1.21-3.1) ...
update-alternatives: using /usr/bin/fakeroot-sysv to provide /usr/bin/fakeroot (fakeroot) in auto mode
Setting up gcc-6 (6.3.0-18+deb9u1) ...
Setting up g++-6 (6.3.0-18+deb9u1) ...
Setting up libalgorithm-merge-perl (0.08-3) ...
Setting up dpkg-dev (1.18.25) ...
Setting up libalgorithm-diff-xs-perl (0.04-4+b2) ...
Setting up pinentry-curses (1.0.0-2) ...
Setting up gnupg-agent (2.1.18-8~deb9u4) ...
Setting up dirmngr (2.1.18-8~deb9u4) ...
Setting up gnupg (2.1.18-8~deb9u4) ...
Setting up gcc (4:6.3.0-4) ...
Setting up g++ (4:6.3.0-4) ...
update-alternatives: using /usr/bin/g++ to provide /usr/bin/c++ (c++) in auto mode
Setting up build-essential (12.3) ...
Processing triggers for libc-bin (2.24-11+deb9u4) ...
utente@localhost:~$ gcc
gcc: fatal error: no input files
compilation terminated.
utente@localhost:~$ gcc --version
gcc (Debian 6.3.0-18+deb9u1) 6.3.0 20170516
Copyright (C) 2016 Free Software Foundation, Inc.
This is free software; see the source for copying conditions. There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

utente@localhost:~$ sudo apt-get install -y python3-pip
```

File Edit View Search Terminal Help

```
Setting up libdbus-glib-1-2:arm64 (0.108-2) ...
Setting up libpython3.5-stdlib:arm64 (3.5.3-1+deb9u1) ...
Setting up file (1:5.30-1+deb9u2) ...
Setting up dbus (1.10.26-0+deb9u1) ...
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Setting up python3.5 (3.5.3-1+deb9u1) ...
Setting up libpython3-stdlib:arm64 (3.5.3-1) ...
Setting up libpython3.5:arm64 (3.5.3-1+deb9u1) ...
Setting up libpython3.5-dev:arm64 (3.5.3-1+deb9u1) ...
Setting up python3.5-dev (3.5.3-1+deb9u1) ...
Setting up libpython3-dev:arm64 (3.5.3-1) ...
Setting up python3 (3.5.3-1) ...
running python rtupdate hooks for python3.5...
running python post-rtupdate hooks for python3.5...
Setting up python3-cffi-backend (1.9.1-2) ...
Setting up python3-crypto (2.6.1-7) ...
Setting up python3-idna (2.2-1) ...
Setting up python3-xdg (0.25-4) ...
Setting up python3-keyrings.alt (1.3-1) ...
Setting up python3-six (1.10.0-3) ...
Setting up python3-dev (3.5.3-1) ...
Setting up python3-wheel (0.29.0-2) ...
Setting up python3-pkg-resources (33.1.1-1) ...
Setting up python3-gi (3.22.0-2) ...
Setting up python3-pyasn1 (0.1.9-2) ...
Setting up python3-pip (9.0.1-2+deb9u1) ...
Setting up python3-setuptools (33.1.1-1) ...
Setting up dh-python (2.20170125) ...
Setting up python3-cryptography (1.7.1-3+deb9u1) ...
Setting up python3-dbus (1.2.4-1+b1) ...
Setting up python3-secretstorage (2.3.1-2) ...
Setting up python3-keyring (10.1-1) ...
Processing triggers for libc-bin (2.24-11+deb9u4) ...
Processing triggers for sgml-base (1.29) ...
utente@localhost:~$
utente@localhost:~$ sudo apt-get install build-essential libssl-dev libffi-dev python-dev
```

File Edit View Search Terminal Help

```
Selecting previously unselected package libpython2.7:arm64.  
Preparing to unpack .../2-libpython2.7_2.7.13-2+deb9u3_arm64.deb ...  
Unpacking libpython2.7:arm64 (2.7.13-2+deb9u3) ...  
Selecting previously unselected package libpython2.7-dev:arm64.  
Preparing to unpack .../3-libpython2.7-dev_2.7.13-2+deb9u3_arm64.deb ...  
Unpacking libpython2.7-dev:arm64 (2.7.13-2+deb9u3) ...  
Selecting previously unselected package libpython-dev:arm64.  
Preparing to unpack .../4-libpython-dev_2.7.13-2_arm64.deb ...  
Unpacking libpython-dev:arm64 (2.7.13-2) ...  
Selecting previously unselected package libssl-dev:arm64.  
Preparing to unpack .../5-libssl-dev_1.1.0j-1~deb9u1_arm64.deb ...  
Unpacking libssl-dev:arm64 (1.1.0j-1~deb9u1) ...  
Selecting previously unselected package libssl-doc.  
Preparing to unpack .../6-libssl-doc_1.1.0j-1~deb9u1_all.deb ...  
Unpacking libssl-doc (1.1.0j-1~deb9u1) ...  
Selecting previously unselected package python2.7-dev.  
Preparing to unpack .../7-python2.7-dev_2.7.13-2+deb9u3_arm64.deb ...  
Unpacking python2.7-dev (2.7.13-2+deb9u3) ...  
Selecting previously unselected package python-dev.  
Preparing to unpack .../8-python-dev_2.7.13-2_arm64.deb ...  
Unpacking python-dev (2.7.13-2) ...  
Processing triggers for mime-support (3.60) ...  
Setting up libssl-dev:arm64 (1.1.0j-1~deb9u1) ...  
Setting up libffi-dev:arm64 (3.2.1-6) ...  
Processing triggers for libc-bin (2.24-11+deb9u4) ...  
Setting up libssl-doc (1.1.0j-1~deb9u1) ...  
Setting up libpython2.7-stdlib:arm64 (2.7.13-2+deb9u3) ...  
Setting up python2.7 (2.7.13-2+deb9u3) ...  
Setting up libpython-stdlib:arm64 (2.7.13-2) ...  
Setting up libpython2.7:arm64 (2.7.13-2+deb9u3) ...  
Setting up libpython2.7-dev:arm64 (2.7.13-2+deb9u3) ...  
Setting up python2.7-dev (2.7.13-2+deb9u3) ...  
Setting up python (2.7.13-2) ...  
Setting up libpython-dev:arm64 (2.7.13-2) ...  
Setting up python-dev (2.7.13-2) ...  
Processing triggers for libc-bin (2.24-11+deb9u4) ...  
utente@localhost:~$ sudo apt-get install -y python3-venv
```

File Edit View Search Terminal Help

```
Setting up libssl-doc (1.1.0j-1~deb9u1) ...
Setting up libpython2.7-stdlib:arm64 (2.7.13-2+deb9u3) ...
Setting up python2.7 (2.7.13-2+deb9u3) ...
Setting up libpython-stdlib:arm64 (2.7.13-2) ...
Setting up libpython2.7:arm64 (2.7.13-2+deb9u3) ...
Setting up libpython2.7-dev:arm64 (2.7.13-2+deb9u3) ...
Setting up python2.7-dev (2.7.13-2+deb9u3) ...
Setting up python (2.7.13-2) ...
Setting up libpython-dev:arm64 (2.7.13-2) ...
Setting up python-dev (2.7.13-2) ...
Processing triggers for libc-bin (2.24-11+deb9u4) ...
utente@localhost:~$ sudo apt-get install -y python3-venv
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  python3.5-venv
The following NEW packages will be installed:
  python3-venv python3.5-venv
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 6998 B of archives.
After this operation, 39.9 kB of additional disk space will be used.
Get:1 http://cdn-fastly.deb.debian.org/debian stable/main arm64 python3.5-venv arm64 3.5.3-1+deb9u1 [5932 B]
Get:2 http://cdn-fastly.deb.debian.org/debian stable/main arm64 python3-venv arm64 3.5.3-1 [1066 B]
Fetched 6998 B in 1s (6488 B/s)
debconf: delaying package configuration, since apt-utils is not installed
E: Setting in Start via TCSAFLUSH for stdin failed! - tcsetattr (13: Permission denied)
Selecting previously unselected package python3.5-venv.
(Reading database ... 24068 files and directories currently installed.)
Preparing to unpack .../python3.5-venv_3.5.3-1+deb9u1_arm64.deb ...
Unpacking python3.5-venv (3.5.3-1+deb9u1) ...
Selecting previously unselected package python3-venv.
Preparing to unpack .../python3-venv_3.5.3-1_arm64.deb ...
Unpacking python3-venv (3.5.3-1) ...
Setting up python3.5-venv (3.5.3-1+deb9u1) ...
Setting up python3-venv (3.5.3-1) ...
utente@localhost:~$ python3 -m venv my env
```

File Edit View Search Terminal Help

```
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  python3.5-venv
The following NEW packages will be installed:
  python3-venv python3.5-venv
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 6998 B of archives.
After this operation, 39.9 kB of additional disk space will be used.
Get:1 http://cdn-fastly.deb.debian.org/debian stable/main arm64 python3.5-venv arm64 3.5.3-1+deb9u1 [5932 B]
Get:2 http://cdn-fastly.deb.debian.org/debian stable/main arm64 python3-venv arm64 3.5.3-1 [1066 B]
Fetched 6998 B in 1s (6488 B/s)
debconf: delaying package configuration, since apt-utils is not installed
E: Setting in Start via TCSAFLUSH for stdin failed! - tcsetattr (13: Permission denied)
Selecting previously unselected package python3.5-venv.
(Reading database ... 24068 files and directories currently installed.)
Preparing to unpack .../python3.5-venv_3.5.3-1+deb9u1_arm64.deb ...
Unpacking python3.5-venv (3.5.3-1+deb9u1) ...
Selecting previously unselected package python3-venv.
Preparing to unpack .../python3-venv_3.5.3-1_arm64.deb ...
Unpacking python3-venv (3.5.3-1) ...
Setting up python3.5-venv (3.5.3-1+deb9u1) ...
Setting up python3-venv (3.5.3-1) ...
utente@localhost:~$ python3 -m venv my_env
utente@localhost:~$ ls -l my_env/
-bash: ls: command not found
utente@localhost:~$ ls -l my_env/
total 28
drwx-----. 2 utente utente 3488 Jun 24 11:09 bin
drwx-----. 2 utente utente 3488 Jun 24 11:09 include
drwx-----. 3 utente utente 3488 Jun 24 11:09 lib
lrwxrwxrwx. 1 utente utente 18 Jun 24 11:09 lib64 -> lib
-rw-----. 1 utente utente 69 Jun 24 11:09 pyvenv.cfg
drwx-----. 3 utente utente 3488 Jun 24 11:09 share
utente@localhost:~$ source my_env/bin/activate
(my_env) utente@localhost:~$
```

File Edit View Search Terminal Help

Building dependency tree

Reading state information... Done

The following additional packages will be installed:

python3.5-venv

The following NEW packages will be installed:

python3-venv python3.5-venv

0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.

Need to get 6998 B of archives.

After this operation, 39.9 kB of additional disk space will be used.

Get:1 http://cdn-fastly.deb.debian.org/debian stable/main arm64 python3.5-venv arm64 3.5.3-1+deb9u1 [5932 B]

Get:2 http://cdn-fastly.deb.debian.org/debian stable/main arm64 python3-venv arm64 3.5.3-1 [1066 B]

Fetched 6998 B in 1s (6488 B/s)

debconf: delaying package configuration, since apt-utils is not installed

E: Setting in Start via TCSAFLUSH for stdin failed! - tcsetattr (13: Permission denied)

Selecting previously unselected package python3.5-venv.

(Reading database ... 24068 files and directories currently installed.)

Preparing to unpack .../python3.5-venv_3.5.3-1+deb9u1_arm64.deb ...

Unpacking python3.5-venv (3.5.3-1+deb9u1) ...

Selecting previously unselected package python3-venv.

Preparing to unpack .../python3-venv_3.5.3-1_arm64.deb ...

Unpacking python3-venv (3.5.3-1) ...

Setting up python3.5-venv (3.5.3-1+deb9u1) ...

Setting up python3-venv (3.5.3-1) ...

utente@localhost:~\$ python3 -m venv my_env

utente@localhost:~\$ ls -l my_env/

-bash: ls: command not found

utente@localhost:~\$ ls -l my_env/

total 28

drwx-----. 2 utente utente 3488 Jun 24 11:09 bin

drwx-----. 2 utente utente 3488 Jun 24 11:09 include

drwx-----. 3 utente utente 3488 Jun 24 11:09 lib

lrwxrwxrwx. 1 utente utente 18 Jun 24 11:09 lib64 -> lib

-rw-----. 1 utente utente 69 Jun 24 11:09 pyvenv.cfg

drwx-----. 3 utente utente 3488 Jun 24 11:09 share

utente@localhost:~\$ source my_env/bin/activate

(my_env) utente@localhost:~\$ pip install youtube-dl

Necessario per youtube-dl

- Installare ffmpeg
`sudo apt install ffmpeg`

Esempio python

- nano hello.py, contenuto:
- `print(«hello world!»)`
- Esegui con:
`python hello.py`

Installare django:
`pip install django`

utente@localhost: ~

utente@localhost: ~

(my_env) utente@localhost:~\$ history

```

1 df
2 uname -a
3 gcc
4 sudo apt install build-essential
5 gcc
6 gcc --version
7 sudo apt-get install -y python3-pip
8 sudo apt-get install build-essential libssl-dev libffi-dev python-dev
9 sudo apt-get install -y python3-venv
10 python3 -m venv my_env
11 l -l my_env/
12 ls -l my_env/
13 source my_env/bin/activate
14 pip install youtube-dl
15 youtube-dl -x https://www.youtube.com/watch?v=po6hcerZzBI
16 sudo apt install ffmpeg
17 youtube-dl -x https://www.youtube.com/watch?v=po6hcerZzBI
18 ip address
19 netstat -antp
20 sudo apt install net-tools
21 netstat -antp
22 ps
23 ps ef
24 iptables
25 sudo iptables
26 history
27 sudo apt install nano
28 history

```

(my_env) utente@localhost:~\$ nano hello.py

(my_env) utente@localhost:~\$ python hello.py

hello world!

(my_env) utente@localhost:~\$ pip install django

Collecting django

Downloading <https://files.pythonhosted.org/packages/eb/4b/743d5008fc7432c714d753e1fc7ee56c6a776dc566cc6cfb4136d46cdccb/Django-2.2.2-py3-none-any.whl> (7.4MB)

39% |#####| 2.9MB 341kB/s eta 0:00:14

Esempio con Django framework

- Installare django:

```
pip install django
```

```
django-admin startproject mywebsite
```

```
cd mywebsite
```

```
python manage.py migrate
```

```
python manage.py runserver 8000
```

```
# visibile in locale all'indirizzo http://localhost:8000/
```

```
per vedere la web app anche in rete (attenzione alla sicurezza!), vedi slide successive
```

```

"""
Django settings for mywebsite project.

Generated by 'django-admin startproject' using Django 2.2.2.

For more information on this file, see
https://docs.djangoproject.com/en/2.2/topics/settings/

For the full list of settings and their values, see
https://docs.djangoproject.com/en/2.2/ref/settings/
"""

```

```

import os

# Build paths inside the project like this: os.path.join(BASE_DIR, ...)
BASE_DIR = os.path.dirname(os.path.dirname(os.path.abspath(__file__)))

# Quick-start development settings - unsuitable for production
# See https://docs.djangoproject.com/en/2.2/howto/deployment/checklist/

# SECURITY WARNING: keep the secret key used in production secret!
SECRET_KEY = 's)y5uxt2nz^56pqy1b8fp1_o!q==&-f%yph(tb#c2jh(h%qzju'

# SECURITY WARNING: don't run with debug turned on in production!
DEBUG = True

```

```
ALLOWED_HOSTS = ['192.168.1.101']
```

```
# Application definition
```

[Wrote 120 lines]

```

^G Get Help      ^O Write Out    ^W Where Is    ^K Cut Text     ^J Justify     ^C Cur Pos     ^Y Prev Page   M-^ First Line
^X Exit          ^R Read File    ^\ Replace     ^U Uncut Text  ^T To Linter   ^_ Go To Line   ^V Next Page   M-/ Last Line

```

django

[View release notes](#) for Django 2.2



The install worked successfully! Congratulations!

You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs.



Django Documentation
Topics, references, & how-to's



Tutorial: A Polling App
Get started with Django



Django Community
Connect, get help, or contribute

Quit the server with CONTROL-C.

^C(my_env) utente@localhost:~/mywebsite\$ python manage.py runserver 0.0.0.0:8000

Watching for file changes with StatReloader

Performing system checks...

System check identified no issues (0 silenced).

June 24, 2019 - 11:34:59

Django version 2.2.2, using settings 'mywebsite.settings'

Starting development server at http://0.0.0.0:8000/

Quit the server with CONTROL-C.

Invalid HTTP_HOST header: '192.168.1.101:8000'. You may need to add '192.168.1.101' to ALLOWED_HOSTS.

Bad Request: /

[24/Jun/2019 11:35:20] "GET / HTTP/1.1" 400 58629

Invalid HTTP_HOST header: '192.168.1.101:8000'. You may need to add '192.168.1.101' to ALLOWED_HOSTS.

Bad Request: /favicon.ico

[24/Jun/2019 11:35:21] "GET /favicon.ico HTTP/1.1" 400 58562

^C(my_env) utente@localhost:~/mywebsite\$

(my_env) utente@localhost:~/mywebsite\$ pico

db.sqlite3 manage.py mywebsite/

(my_env) utente@localhost:~/mywebsite\$ pico mywebsite/

__init__.py pycache/ settings.py urls.py wsgi.py

(my_env) utente@localhost:~/mywebsite\$ pico mywebsite/settings.py

(my_env) utente@localhost:~/mywebsite\$ python manage.py runserver 0.0.0.0:8000

Watching for file changes with StatReloader

Performing system checks...

System check identified no issues (0 silenced).

June 24, 2019 - 11:36:41

Django version 2.2.2, using settings 'mywebsite.settings'

Starting development server at http://0.0.0.0:8000/

Quit the server with CONTROL-C.

[24/Jun/2019 11:36:47] "GET / HTTP/1.1" 200 16348

[24/Jun/2019 11:36:48] "GET /static/admin/css/fonts.css HTTP/1.1" 200 423

[24/Jun/2019 11:36:48] "GET /static/admin/fonts/Roboto-Light-webfont.woff HTTP/1.1" 200 85692

[24/Jun/2019 11:36:48] "GET /static/admin/fonts/Roboto-Bold-webfont.woff HTTP/1.1" 200 86184

[24/Jun/2019 11:36:48] "GET /static/admin/fonts/Roboto-Regular-webfont.woff HTTP/1.1" 200 85876

```

CPU architecture: 8
CPU variant      : 0x0
CPU part         : 0xd03
CPU revision     : 4

processor        : 5
BogoMIPS        : 3.84
Features         : fp asimd evtstrm aes pmull sha1 sha2 crc32
CPU implementer : 0x41
CPU architecture: 8
CPU variant      : 0x0
CPU part         : 0xd03
CPU revision     : 4

```

```

processor        : 6
BogoMIPS        : 3.84
Features         : fp asimd evtstrm aes pmull sha1 sha2 crc32
CPU implementer : 0x41
CPU architecture: 8
CPU variant      : 0x0
CPU part         : 0xd03
CPU revision     : 4

```

```

processor        : 7
BogoMIPS        : 3.84
Features         : fp asimd evtstrm aes pmull sha1 sha2 crc32
CPU implementer : 0x41
CPU architecture: 8
CPU variant      : 0x0
CPU part         : 0xd03
CPU revision     : 4

```

```
(my_env) utente@localhost:~/mywebsite$
```

```
(my_env) utente@localhost:~/mywebsite$ logout
```

```
Connection to 0.tcp.ngrok.io closed.
```

```
[marco@parrot]-[~] 0 space: 10.1 GB
```

```
$
```

```
[marco@parrot]~$ ssh utente@192.168.1.101
ssh: connect to host 192.168.1.101 port 22: Connection refused
```

```
[x]~[marco@parrot]~$ ssh -p 2022 utente@192.168.1.101
The authenticity of host '[192.168.1.101]:2022 ([192.168.1.101]:2022)' can't be established.
ECDSA key fingerprint is SHA256:fmrN04zI8g8+NvCi20c+1BHe5fLcGwR/x2CV8MpL/Dw.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '[192.168.1.101]:2022' (ECDSA) to the list of known hosts.
utente@192.168.1.101's password:
```

```
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.
```

```
utente@localhost:~$ top
```

```
top: failed tty set: Permission denied
```

```
utente@localhost:~$ ps ef
```

PID	TTY	STAT	TIME	COMMAND
32474	pts/3	Ss	0:00	-bash USER=utente LOGNAME=utente HOME=/home/utente SHELL=/bin/bash PATH=/usr/bin:/bin TERM=xterm-256colo
24948	pts/3	t+	0:00	_ ps ef LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=4
29128	pts/2	Ss	0:00	-bash USER=utente LOGNAME=utente HOME=/home/utente SHELL=/bin/bash PATH=/usr/bin:/bin TERM=xterm-256colo
18122	pts/2	t+	0:46	_ /home/utente/my_env/bin/python3 /home/utente/my_env/bin/pip install django LS_COLORS=rs=0:di=01;34:ln
24285	pts/1	Ss	0:00	-bash USER=utente LOGNAME=utente HOME=/home/utente SHELL=/bin/bash PATH=/usr/bin:/bin TERM=xterm-256colo
25031	pts/1	S+	0:20	_ ngrok tcp 22 LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;
24242	pts/0	S<s+	0:00	busybox sh -c /data/user/0/tech.ula/files/support/dbclient -y -y utente@localhost/2022 TERM=xterm-256col
24247	pts/0	S<+	0:00	_ /data/user/0/tech.ula/files/support/dbclient -y -y utente@localhost/2022 EXTERNAL_STORAGE=/sdcard SH

```
utente@localhost:~$ logout
```

```
Connection to 192.168.1.101 closed.
```

```
[marco@parrot]~$
```

```
$
```