

# Android Kali NetHunter Rootless Install

# Disclaimer

This document **DOES NOT** promote or encourage any illegal activities!

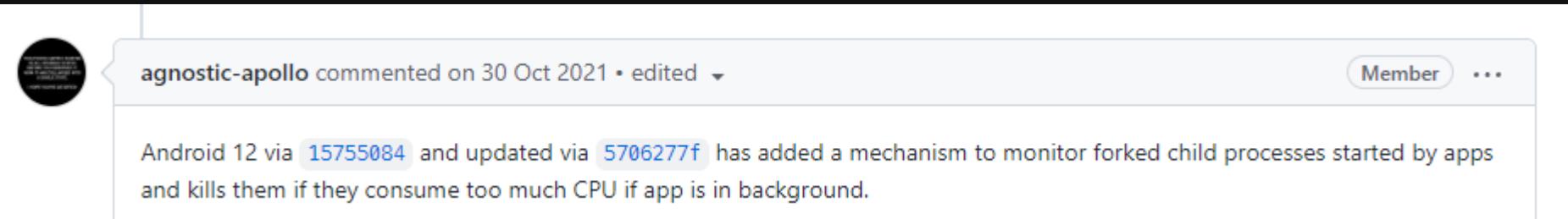
The content in this document is provided solely for educational purposes and to create awareness!



# WARNING!

# Requirements

1. A Physical Android Phone. You can do this install on an Android 12 phone, but a phone running on a version **before** Android 12 is recommended. See the link to the article below on GitHub on how Android monitors and kills forked child processes of apps when they use too much of the CPU. <https://github.com/termux/termux-app/issues/2366>



A screenshot of a GitHub comment card. The comment was made by user 'agnostic-apollo' on 30 Oct 2021, edited, and is marked as a Member. The comment text reads: "Android 12 via 15755084 and updated via 5706277f has added a mechanism to monitor forked child processes started by apps and kills them if they consume too much CPU if app is in background."



# Android Kali NetHunter Rootless Install

1. You will need to install Termux. You can get Termux from the F-Droid store or from their GitHub repo using one of the following links (In the demo we use GitHub):

- <https://f-droid.org/packages/com.termux/>
- <https://github.com/termux/termux-app/releases>

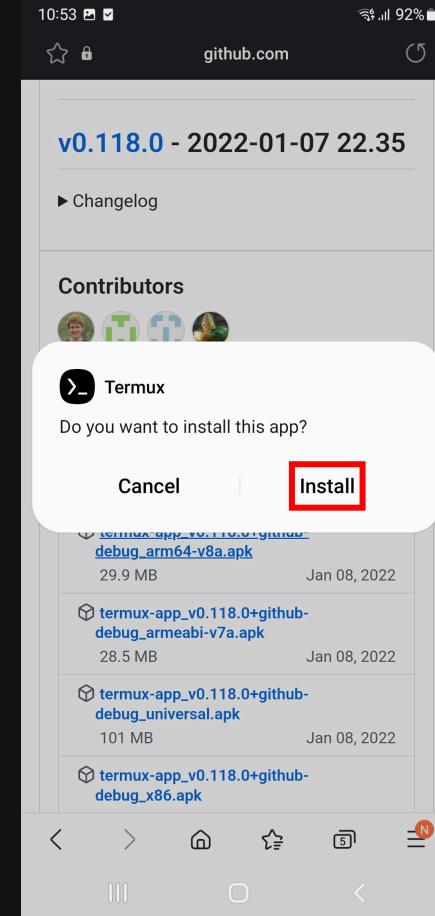
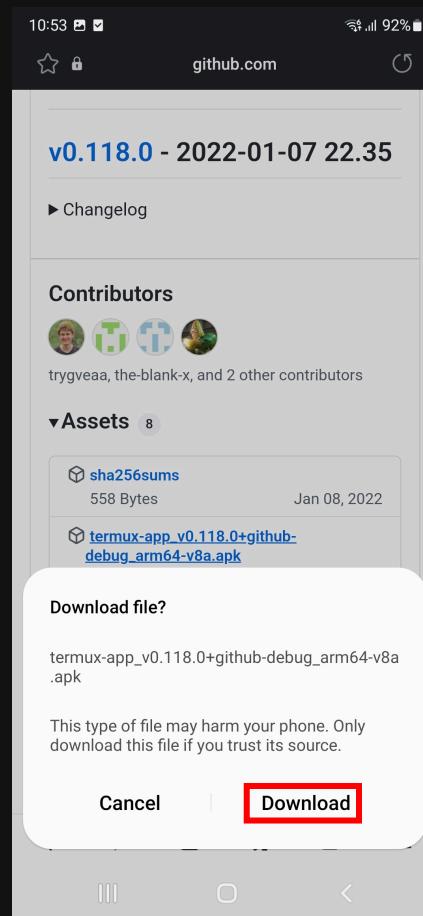
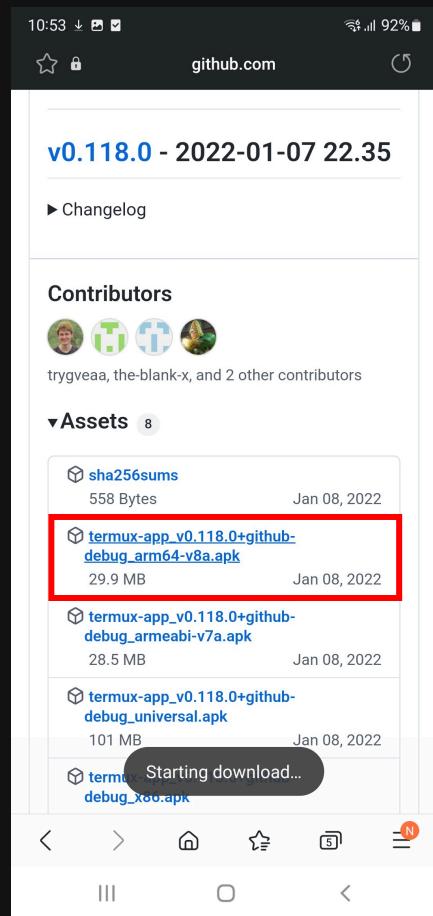
Take note that the official Termux Wiki and Termux GitHub pages indicates that you should not install the outdated version hosted on the Google Play Store.

2. Download the latest Termux version at the time of writing it is **termux-app\_v0.118.0+github-debug\_arm64-v8a.apk** from the **github link above**.

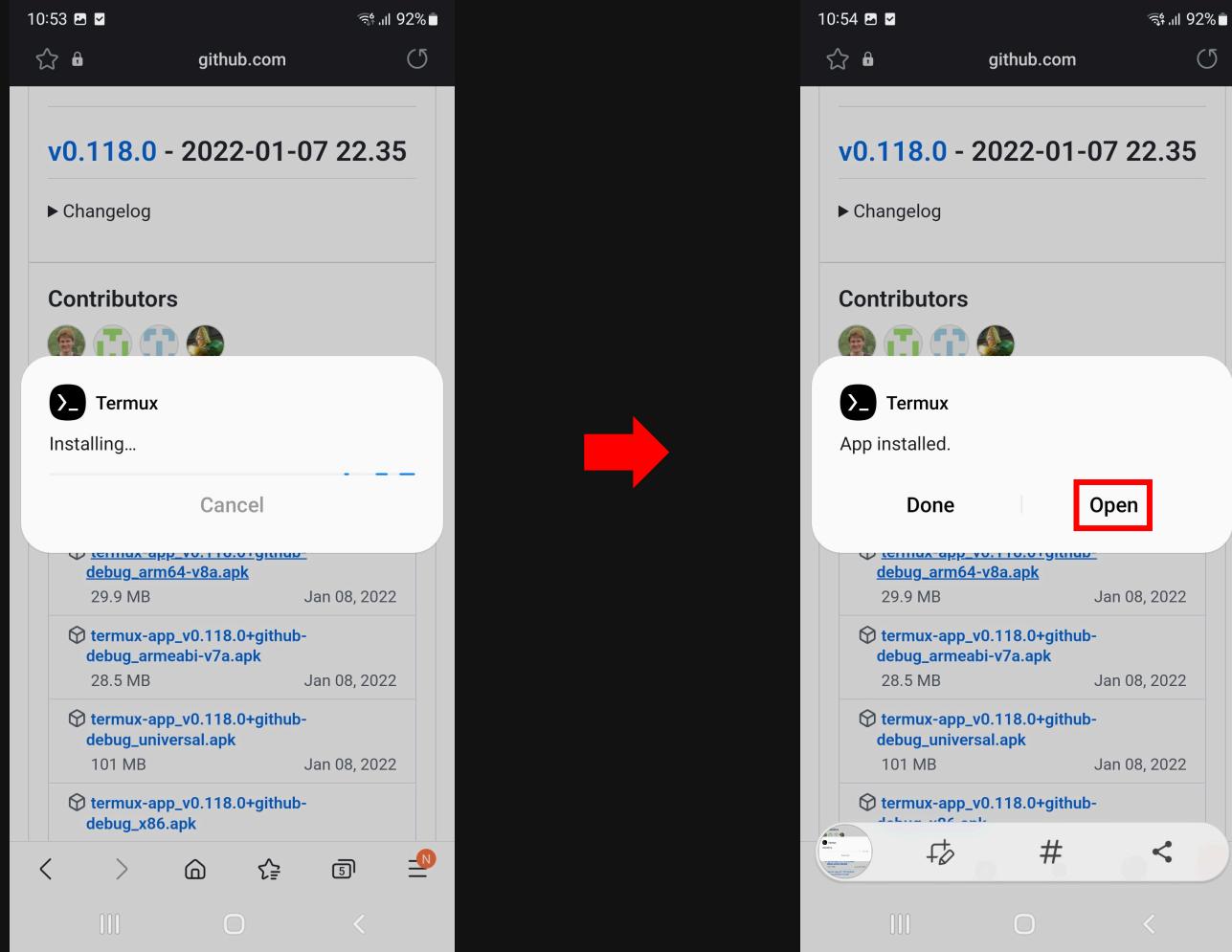


# Android Kali NetHunter Rootless Install

3. Open and Install the downloaded APK file. Press on Install and then Open.



# Android Kali NetHunter Rootless Install



# Android Kali NetHunter Rootless Install

## **apt update and apt upgrade**

Debian Linux and many of its derivatives use **APT (Advanced Package Tool)** to install tools. We need to run **apt update** to get the package source information from the configured resources in the **/etc/apt/sources.list** file. This is how the system knows which files needs to be updated and where they can be downloaded from.

**apt upgrade** will then use the information to upgrade all the installed packages to their latest versions.



# Android Kali NetHunter Rootless Install

4. Enter the following command: `apt update`

Welcome to Termux!

[1]

Community forum: <https://termux.com/community>  
Gitter chat: <https://gitter.im/termux/termux>  
IRC channel: #termux on libera.chat

Working with packages:

- \* Search packages: `pkg search <query>`
- \* Install a package: `pkg install <package>`
- \* Upgrade packages: `pkg upgrade`

Subscribing to additional repositories:

- \* Root: `pkg install root-repo`
- \* X11: `pkg install x11-repo`

Report issues at <https://termux.com/issues>

~ \$ █



Welcome to Termux!

Community forum: <https://termux.com/community>  
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Subscribing to additional repositories:

- \* Root: `pkg install root-repo`
- \* X11: `pkg install x11-repo`

Report issues at <https://termux.com/issues>

~ \$ `apt update` █



# Android Kali NetHunter Rootless Install

5. Enter the following command: `apt upgrade`

```
Working with packages:  
* Search packages: pkg search <query>  
* Install a package: pkg install <package>  
* Upgrade packages: pkg upgrade  
  
Subscribing to additional repositories:  
* Root:     pkg install root-repo  
* X11:      pkg install x11-repo  
  
Report issues at https://termux.com/issues  
  
- $ apt update  
Get:1 https://packages.termux.dev/apt/termux-main stable InRelease [14.0 kB]  
Get:2 https://packages.termux.dev/apt/termux-main stable/main aarch64 Packages [429 kB]  
Fetched 443 kB in 10s (42.8 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
46 packages can be upgraded. Run 'apt list --upgradable' to see them.  
- $ apt upgrade
```



# Android Kali NetHunter Rootless Install

6. When you get asked to “**Do you want to continue**” press **Y** and **Enter**.

```
Building dependency tree... Done
46 packages can be upgraded. Run 'apt list --upgradable' to see them.
~ $ apt upgrade
Reading package lists... Done
Building dependency tree... Done
Calculating upgrade... Done
The following NEW packages will be installed:
  bash-completion
The following packages will be upgraded:
  apt bash ca-certificates command-not-found
  coreutils curl dash debianutils dialog dpkg ed
  findutils gawk gpgv gzip inetutils libc++
  libcap-ng libcrypt libcurl libevent libexpat
  libgcrypt libgmp libgnutls libgpg-error liblz4
  libmpfr libnghttp2 libssh2 libtirpc libunistring
  lsof nano ncurses openssl pcre2 termux-am-socket
  termux-exec termux-keyring termux-licenses
  termux-tools unbound unzip util-linux zlib
46 upgraded, 1 newly installed, 0 to remove and 0 not
upgraded.
Need to get 14.4 MB of archives.
After this operation, 6681 kB of additional disk space
will be used.
Do you want to continue? [Y/n] y█
```



# Android Kali NetHunter Rootless Install

- When prompted for an action press **Y** and **<Enter>** so you install the package maintainer's version.

```
Unpacking ca-certificates (1:2022.04.26) over (1:2021  
-10-26-0) ...  
Setting up ca-certificates (1:2022.04.26) ...  
(Reading database ... 4112 files and directories curr  
ently installed.)  
Preparing to unpack .../openssl_3.0.3_aarch64.deb ...  
Unpacking openssl (3.0.3) over (1.1.1l) ...  
Setting up openssl (3.0.3) ...  
  
Configuration file '/data/data/com.termux/files/usr/e  
tc/tls/openssl.cnf'  
  ==> File on system created by you or by a script.  
  ==> File also in package provided by package maintai  
ner.  
What would you like to do about it ? Your options  
are:  
    Y or I : install the package maintainer's versio  
n  
    N or O : keep your currently-installed version  
    D      : show the differences between the versio  
ns  
    Z      : start a shell to examine the situation  
The default action is to keep your current version.  
*** openssl.cnf (Y/I/N/O/D/Z) [default=N] ? █  
Progress: [ 24%] [#####.....]
```



# Android Kali NetHunter Rootless Install

8. Enter the following command: `apt update`

You want to do this, so you get the **wget** package information.

```
~ $ apt update
Get:1 https://packages.termux.dev/apt/termux-main stable InRelease [14.0 kB]
Get:2 https://packages.termux.dev/apt/termux-main stable/main aarch64 Packages [429 kB]
Fetched 443 kB in 6s (74.5 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
~ $ █
```



# Android Kali NetHunter Rootless Install

9. Enter the following command: `termux-setup-storage`

In order to have shared storage you need to give Termux storage access permission. **Doesn't give access to external connected storage devices.**



# Android Kali NetHunter Rootless Install

10. Install **wget** and when you're asked **Do you want to continue**, press **Y** and **Enter**.

```
apt install wget
```

```
10:28 📺 >_ ↵ ... ⚡ 89% 🔋
~ $ apt install wget
Reading package lists... Done
Building dependency tree... Done
The following additional packages will be installed:
libuuid
The following NEW packages will be installed:
libuuid wget
0 upgraded, 2 newly installed, 0 to remove and 11 not up-
graded.
Need to get 281 kB of archives.
After this operation, 881 kB of additional disk space wi-
ll be used.
Do you want to continue? [Y/n] Y
Get:1 https://packages.termux.org/apt/termux-main stable
/main aarch64 libuuid aarch64 1.0.3-4 [6514 B]
Get:2 https://packages.termux.org/apt/termux-main stable
/main aarch64 wget aarch64 1.21.1-1 [275 kB]
Fetched 281 kB in 2s (147 kB/s)
Selecting previously unselected package libuuid.
(Reading database ... 4112 files and directories current-
ly installed.)
Preparing to unpack .../libuuid_1.0.3-4_aarch64.deb ...
Unpacking libuuid (1.0.3-4) ...
Selecting previously unselected package wget.
```



# Android Kali NetHunter Rootless Install

11. When you get asked to “**Do you want to continue**” press **Y** and **Enter**.

```
10:38 59%  
~ $ apt update  
Get:1 https://packages.termux.org/apt/termux-main stable  
InRelease [14.0 kB]  
Get:2 https://packages.termux.org/apt/termux-main stable  
/main aarch64 Packages [361 kB]  
Fetched 375 kB in 8s (48.2 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
10 packages can be upgraded. Run 'apt list --upgradable'  
to see them.  
~ $ apt install wget  
Reading package lists... Done  
Building dependency tree... Done  
The following additional packages will be installed:  
 libuuid  
The following NEW packages will be installed:  
 libuuid wget  
0 upgraded, 2 newly installed, 0 to remove and 10 not up  
graded.  
Need to get 281 kB of archives.  
After this operation, 881 kB of additional disk space wi  
ll be used.  
Do you want to continue? [Y/n] ■
```

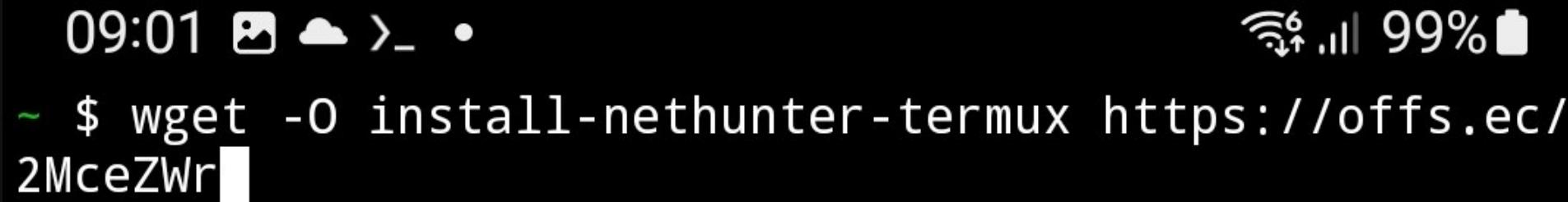


```
10:38 59%  
~ $ apt update  
Get:1 https://packages.termux.org/apt/termux-main stable  
InRelease [14.0 kB]  
Get:2 https://packages.termux.org/apt/termux-main stable  
/main aarch64 Packages [361 kB]  
Fetched 375 kB in 8s (48.2 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
10 packages can be upgraded. Run 'apt list --upgradable'  
to see them.  
~ $ apt install wget  
Reading package lists... Done  
Building dependency tree... Done  
The following additional packages will be installed:  
 libuuid  
The following NEW packages will be installed:  
 libuuid wget  
0 upgraded, 2 newly installed, 0 to remove and 10 not up  
graded.  
Need to get 281 kB of archives.  
After this operation, 881 kB of additional disk space wi  
ll be used.  
Do you want to continue? [Y/n] Y  
0% [Working] ■
```

# Android Kali NetHunter Rootless Install

12. Download the NetHunter install file. **Ensure that you enter the correct address.**

```
 wget -O install-nethunter-termux https://offs.ec/2MceZWr
```



09:01 📸 ☁️ >\_ • ⚡ 99% 🔋

```
~ $ wget -O install-nethunter-termux https://offs.ec/2MceZWr
```



# Android Kali NetHunter Rootless Install

13. Change the permissions so that you can execute the file:

```
chmod +x install-nethunter-termux
```

```
13:59 54% 54%
--2022-02-16 13:58:30-- https://offs.ec/2MceZWr
Resolving offs.ec... 67.199.248.12, 67.199.248.13
Connecting to offs.ec|67.199.248.12|:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://gitlab.com/kalilinux/nethunter/build-scripts/kali-nethunter-project/raw/master/nethunter-rootless/install-nethunter-termux [following]
--2022-02-16 13:58:30-- https://gitlab.com/kalilinux/nethunter/build-scripts/kali-nethunter-project/raw/master/nethunter-rootless/install-nethunter-termux
Resolving gitlab.com... 172.65.251.78
Connecting to gitlab.com|172.65.251.78|:443... connected
.
HTTP request sent, awaiting response... 200 OK
Length: 10772 (11K) [text/plain]
Saving to: 'install-nethunter-termux'

install-nethu 100% 10.52K ---KB/s   in 0.001s
2022-02-16 13:58:31 (7.32 MB/s) - 'install-nethunter-termux' saved [10772/10772]
~ $ chmod +x install-nethunter-termux
```



# Android Kali NetHunter Rootless Install

14. Type the following command to execute the downloaded install file:

```
./install-nethunter-termux
```



A screenshot of an Android device's screen. At the top, there is a status bar with icons for time (14:00), signal strength, battery level (54%), and connectivity. Below the status bar is a dark-themed terminal window. The terminal shows a green prompt followed by the command `./install-nethunter-termux`. The background of the terminal window is dark, and the text is white.

# Android Kali NetHunter Rootless Install

15. The installation will take a while, when asked to delete rootfs, enter **N**.



17:11 ⚡ M ⚡ ... 46%

Downloaded 2.98656 Gigabyte(s) in 9:48 minute(s). (5325.86 KB/s)

[\*] Getting SHA ...

Initializing download: https://images.kali.org/nethunter/kalifs-arm64-full.sha512sum  
File size: 155 byte(s) (155 bytes)  
Opening output file kalifs-arm64-full.sha512sum  
Starting download

[100%] [.....] [ 763.0B/s]

Downloaded 155 byte(s) in 0 second(s). (0.75 KB/s)

[\*] Verifying integrity of rootfs...

kalifs-arm64-full.tar.xz: OK

[\*] Extracting rootfs...

[?] Delete downloaded rootfs file? [y/N] █



# Android Kali NetHunter Rootless Install

16. To start Kali NetHunter you can use the following commands:

- To start the CLI `nethunter`
- To setup the NetHunter KeX password `nethunter kex passwd`
- To start NetHunter KeX (Password will be set on first startup) `nethunter kex`
- To stop the NetHunter KeX GUI `nethunter kex stop`
- To run NetHunter as root `nethunter -r`
- You replace `nethunter` with `nh` in all these commands. `nh`



# Android Kali NetHunter Rootless Install

```
13:16 8 67%
#####
##          ##
##  88      a8P      db      88      88  ##
##  88      .88'     d88b    88      88  ##
##  88      88'     d8' '8b   88      88  ##
##  88 d88      d8' '8b   88      88  ##
##  8888'88.    d8YaaaaY8b  88      88  ##
##  88P  Y8b     d8''''''8b  88      88  ##
##  88      '88.    d8'     '8b  88      88  ##
##  88      Y8b d8'     '8b  8888888888 88  ##
##          ##
##### ##### NetHunter #####
[=] Kali NetHunter for Termux installed successfully

[+] To start Kali NetHunter, type:
[+] nethunter           # To start NetHunter CLI
[+] nethunter kex passwd # To set the KeX password
[+] nethunter kex &      # To start NetHunter GUI
[+] nethunter kex stop   # To stop NetHunter GUI
[+] nethunter -r         # To run NetHunter as root
[+] nh                  # Shortcut for nethunter

~ $ █

ESC      /      -      HOME      ↑      END      PGUP
          CTRL    ALT      ←      ↓      →      PGDN
```



# Android Kali NetHunter Rootless Install

17. Once you run **nh** you are now in the Kali NetHunter CLI.



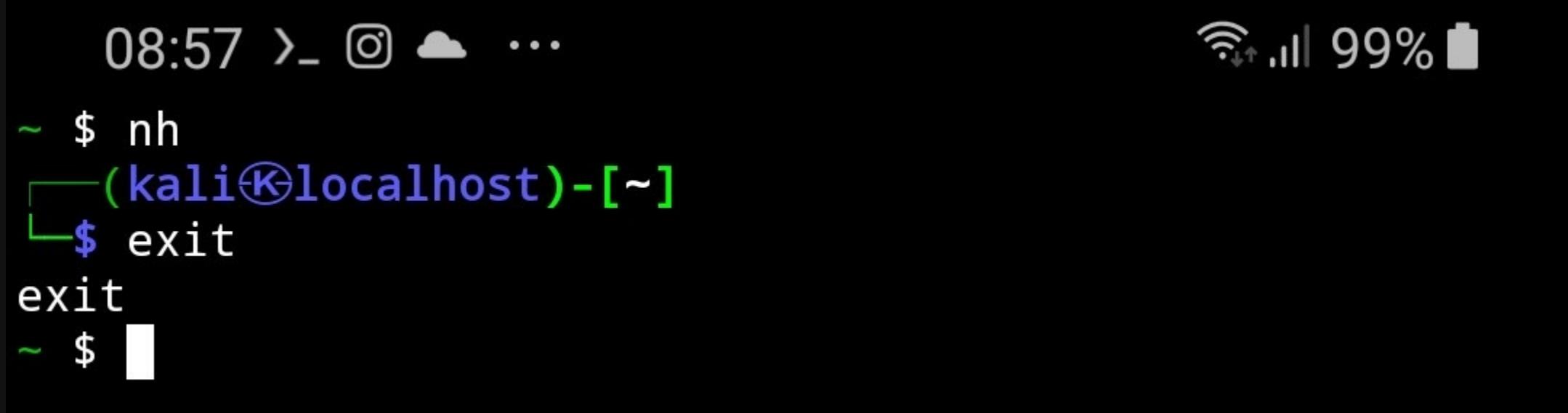
```
13:17 67% 67%
## 88      a8P      db      88      88  ##
## 88      .88'     d88b    88      88  ##
## 88      88'     d8' '8b   88      88  ##
## 88  d88     d8'  '8b   88      88  ##
## 8888'88.   d8YaaaaY8b  88      88  ##
## 88P  Y8b     d8' ' '8b  88      88  ##
## 88      '88.   d8'     '8b  88      88  ##
## 88      Y8b d8'     '8b  8888888888 88  ##
##                                     ##
##### ##### NetHunter #####
[=] Kali NetHunter for Termux installed successfully
[+] To start Kali NetHunter, type:
[+] nethunter          # To start NetHunter CLI
[+] nethunter kex passwd # To set the KeX password
[+] nethunter kex &      # To start NetHunter GUI
[+] nethunter kex stop   # To stop NetHunter GUI
[+] nethunter -r         # To run NetHunter as root
[+] nh                  # Shortcut for nethunter
~ $ nh
└─(kali㉿localhost)-[~]
└─$
```

ESC / - HOME ↑ END PGUP  
→ CTRL ALT ← ↓ → PGDN



# Android Kali NetHunter Rootless Install

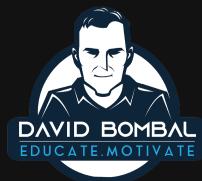
18. You can exit the NetHunter CLI by entering **exit**.



A screenshot of the Android Kali NetHunter Rootless CLI. The screen shows a terminal window with the following text:

```
08:57 >_ 📸 ☁ ...  
~ $ nh  
└─(kali㉿localhost)-[~]  
└$ exit  
exit  
~ $ █
```

The terminal window has a dark background with white text. The status bar at the top shows the time (08:57), signal strength, and battery level (99%).



# Android Kali NetHunter Rootless Install

19. Set the password for KeX VNC by running **nh kex** for the first time. You'll use the password again in Step 29 so remember it.

```
13:18 📸 🚶 📧 ⏮ ... ⌘ 67% 🕵️
~ $ nh kex
vncserver: No matching VNC server running for this user!
vncserver: No matching VNC server running for this user!
Password:
Verify:
Would you like to enter a view-only password (y/n)? █
```



# Android Kali NetHunter Rootless Install

20. Remember the port number. You will use it in Step 29.

```
10:00 >_ 🖼 ↵ ... ⚡ 93% 🔋
* Upgrade packages: pkg upgrade

Subscribing to additional repositories:

* Root:     pkg install root-repo
* X11:      pkg install x11-repo

Report issues at https://termux.com/issues

~ $ nh kex
vncserver: No matching VNC server running for this user!
vncserver: No matching VNC server running for this user!

NetHunter KeX server sessions:

X DISPLAY #      RFB PORT #      PROCESS ID      SERVER
:1              5901            30136           Xtigervn
c

You can use the KeX Client to connect to any of these displays.
```



# Android Kali NetHunter Rootless Install

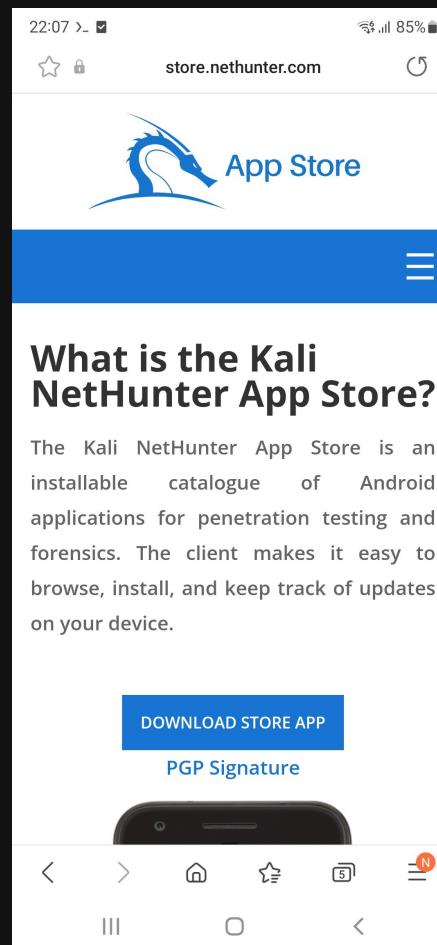
21. Set the password for KeX VNC by running nh kex for the first time. Say no to entering a view-only password.

```
13:18 📸 🚙 📧 ⏮ ... ⌘ 67% 🔋  
~ $ nh kex  
vncserver: No matching VNC server running for this user!  
vncserver: No matching VNC server running for this user!  
Password:  
Verify:  
Would you like to enter a view-only password (y/n)? █
```



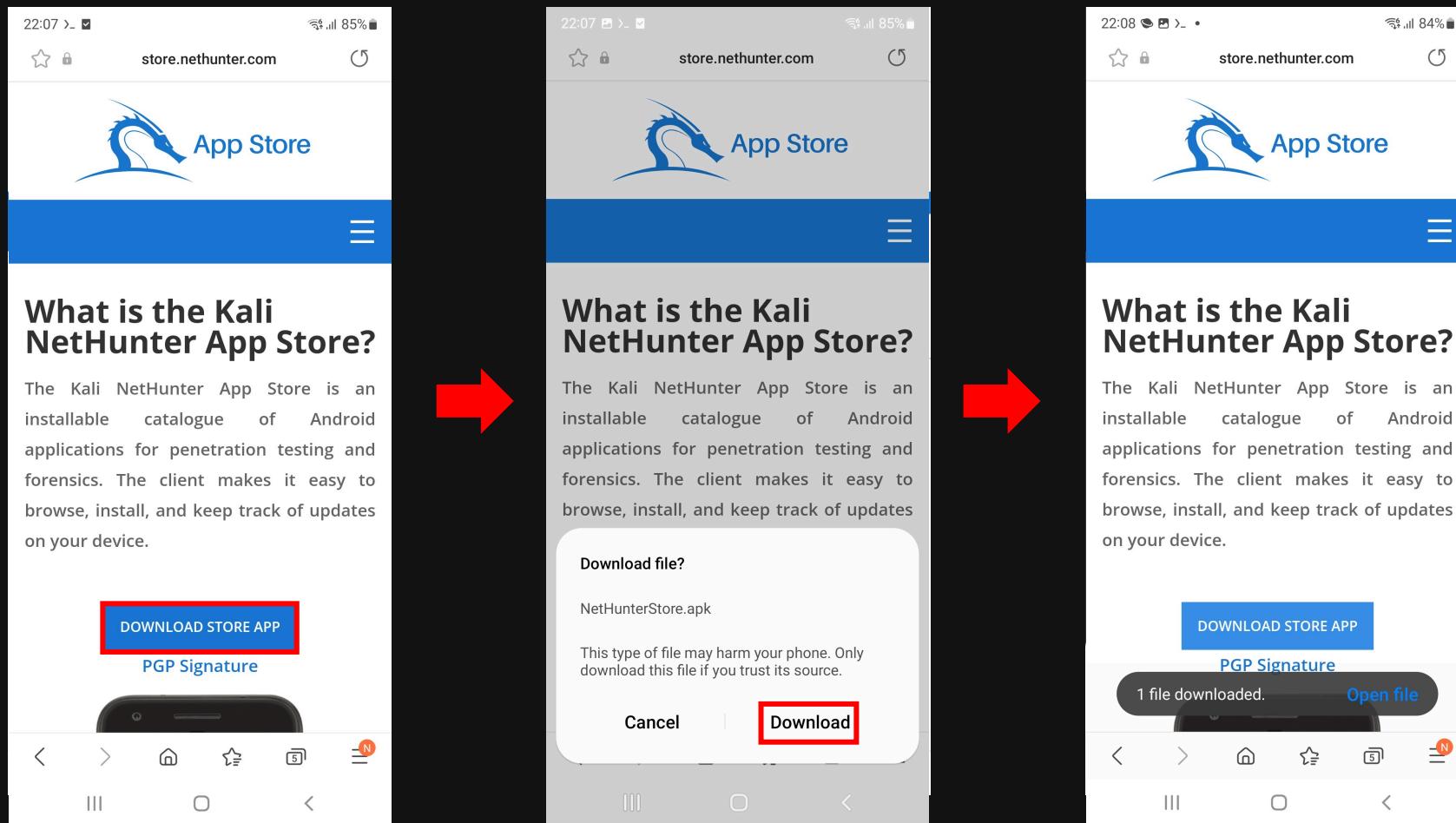
# Android Kali NetHunter Rootless Install

22. Go to the Kali NetHunter App Store website: <https://store.nethunter.com/en/>



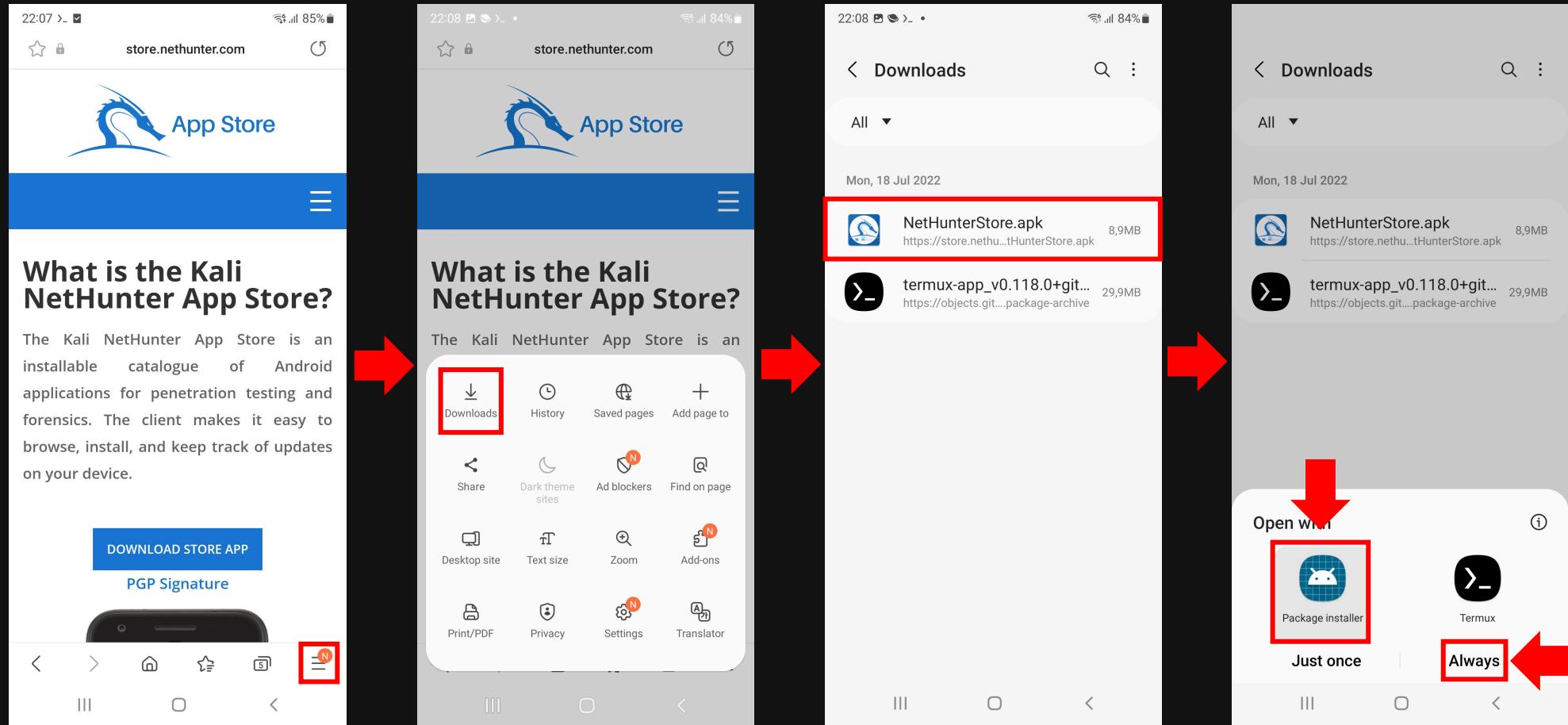
# Android Kali NetHunter Rootless Install

## 23. Download the NetHunter App Store.

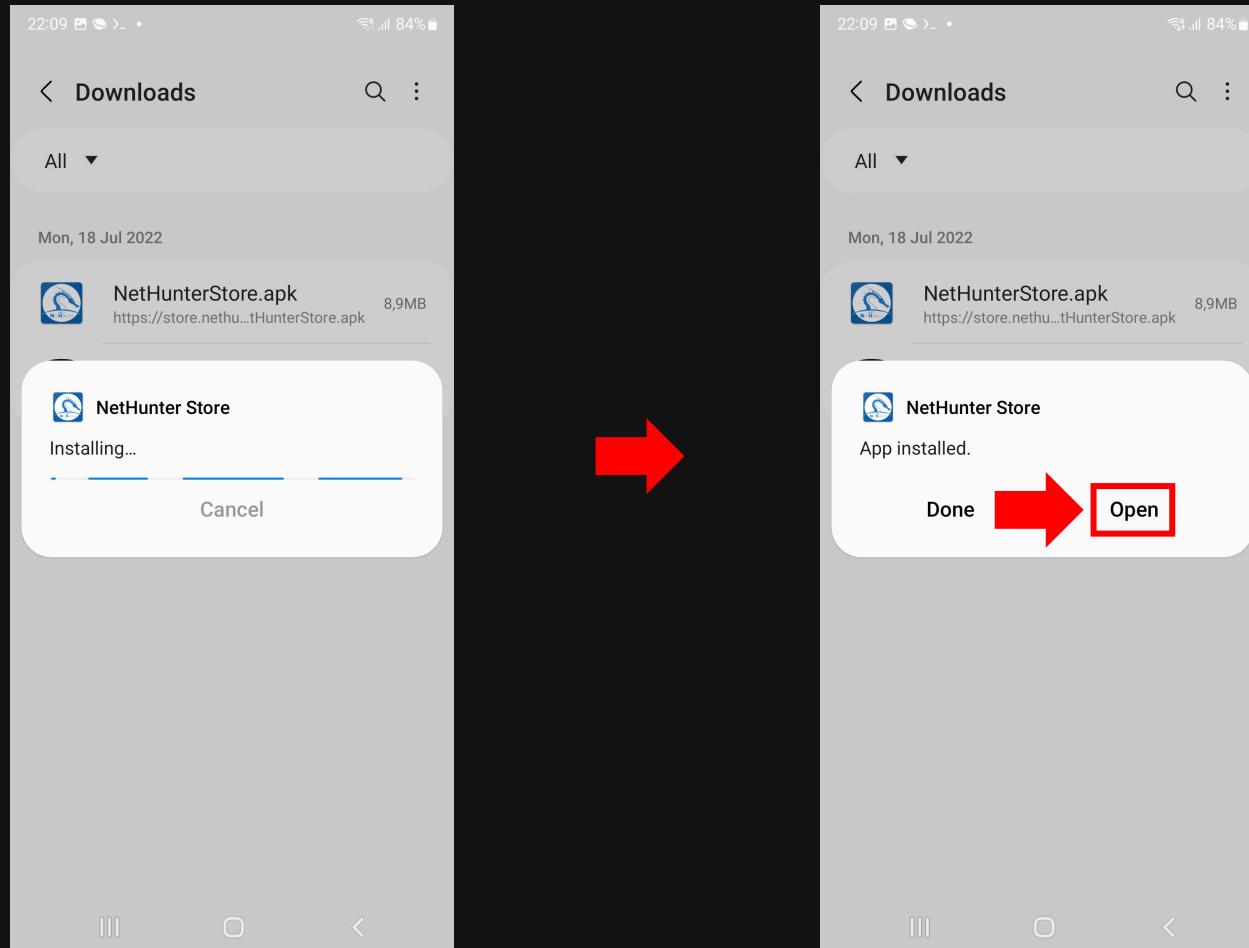


# Android Kali NetHunter Rootless Install

24. Press on the Hamburger button of your browser, go to downloads and install NetHunterStore.apk

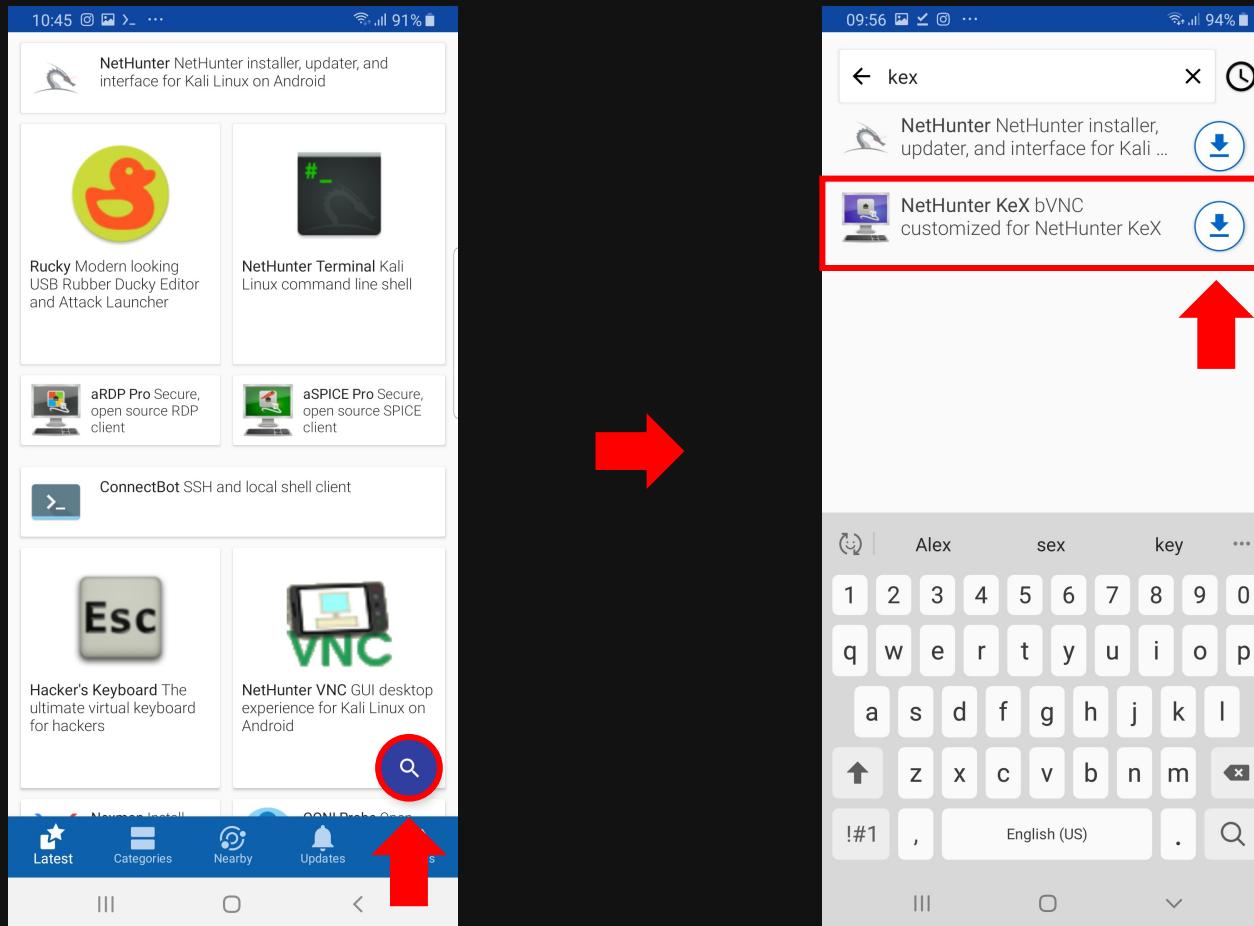


# Android Kali NetHunter Rootless Install



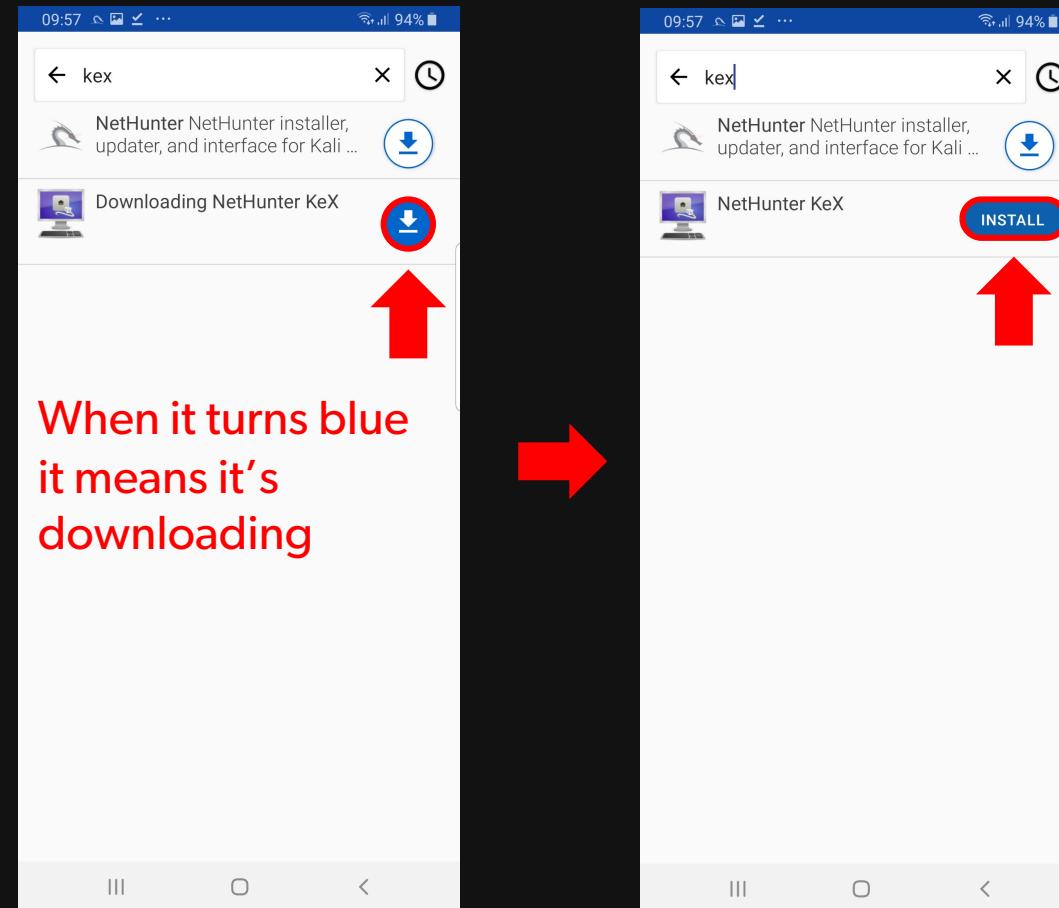
# Android Kali NetHunter Rootless Install

25. Press on the search button and enter KeX. Press to download NetHunter KeX.



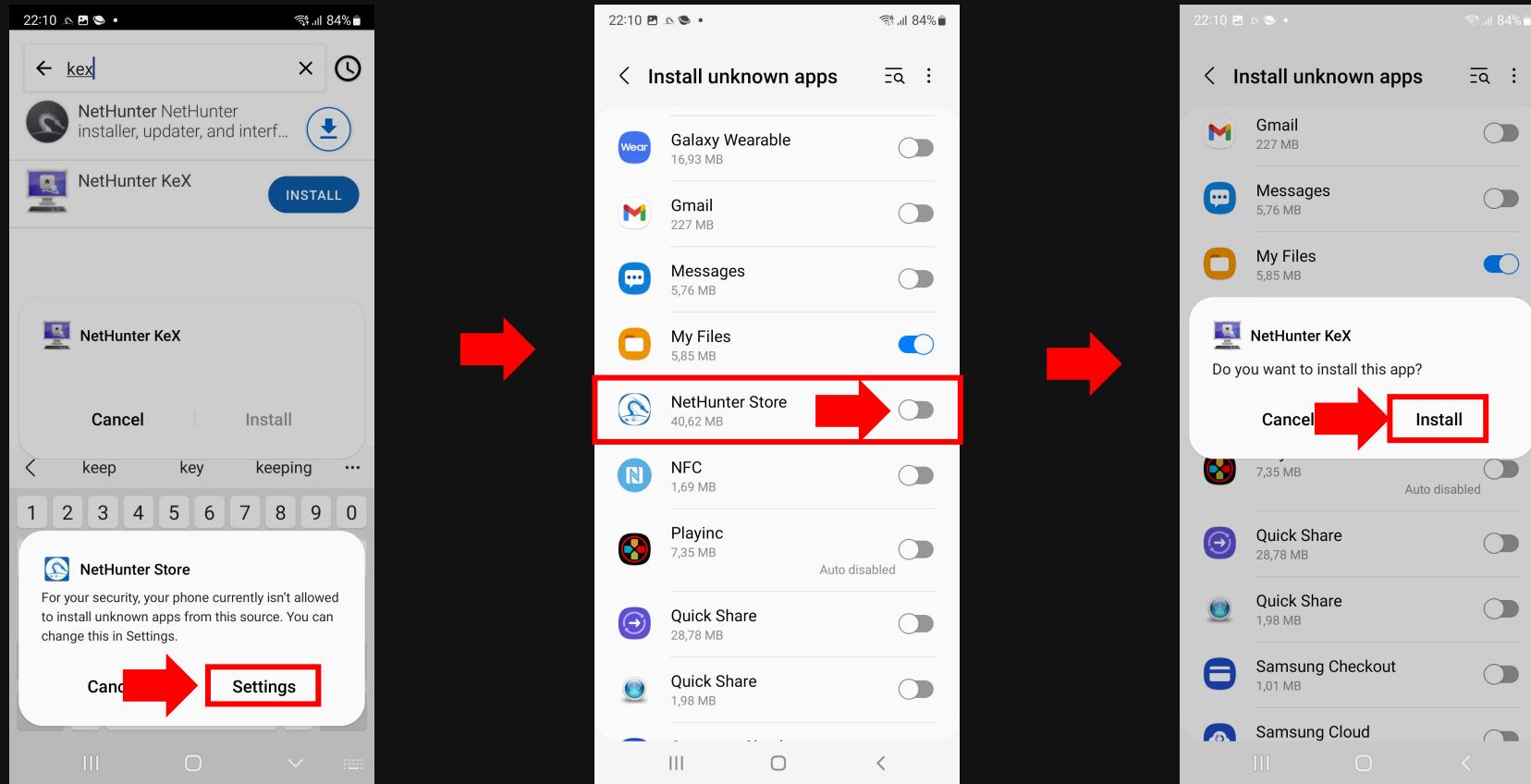
# Android Kali NetHunter Rootless Install

26. Press on the search button and enter KeX. Press to download and install KeX.



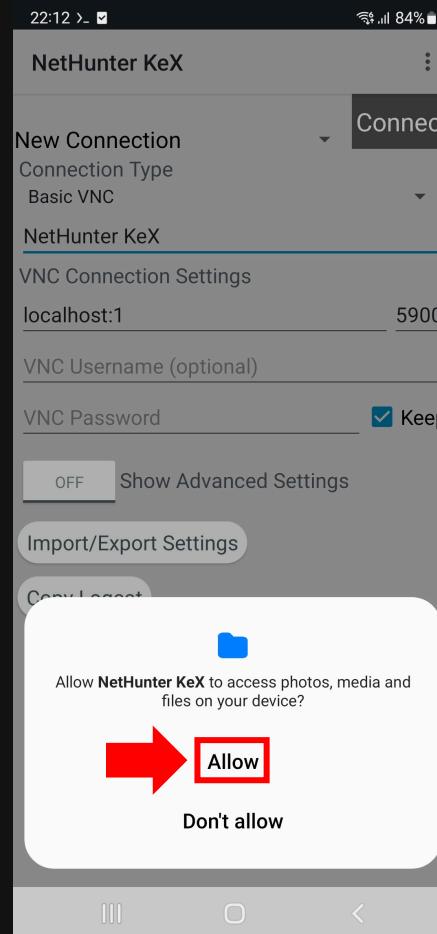
# Android Kali NetHunter Rootless Install

27. You will get a popup window. You click on Settings, and then toggle **Allow from this source**. Then press **Install**.



# Android Kali NetHunter Rootless Install

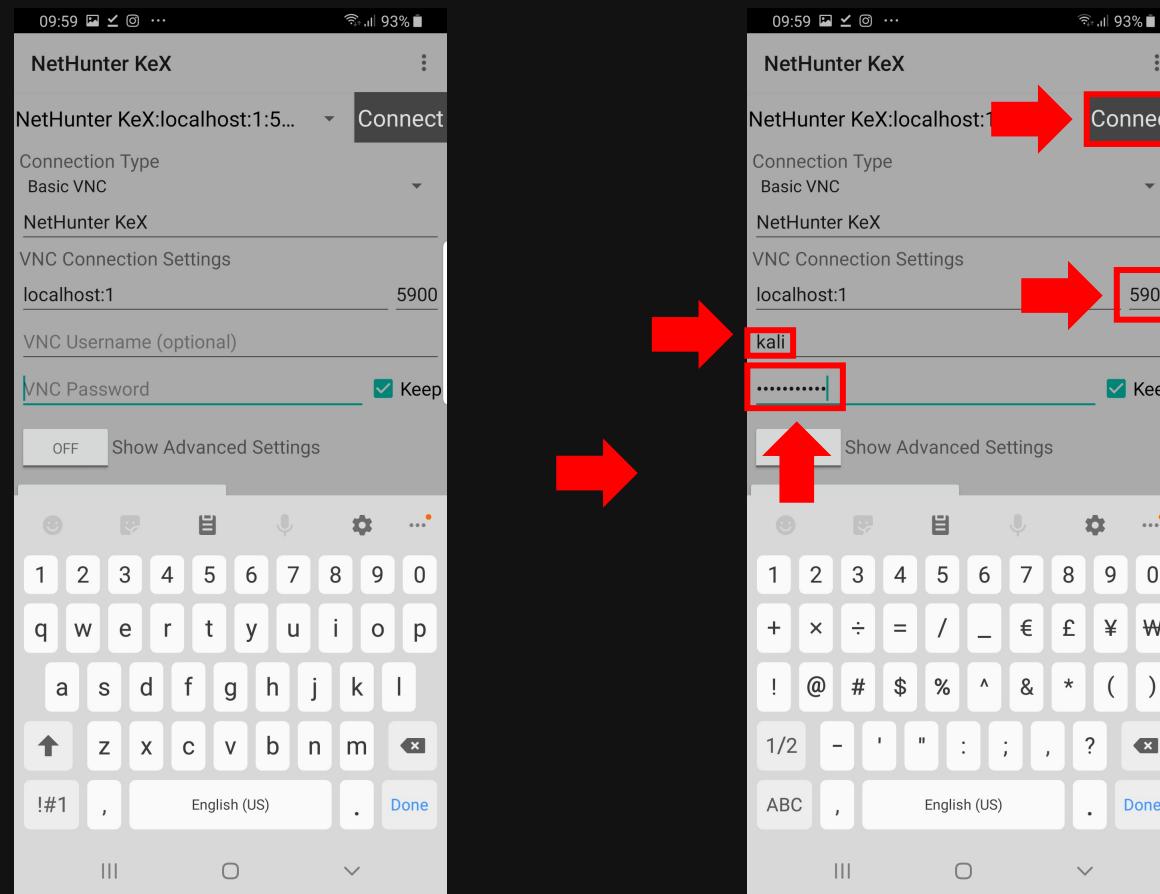
28. Press on **Allow** to allow NetHunter KeX access to your files on the device.



# Android Kali NetHunter Rootless Install

29. Enter the port number from step 20, username as kali, and your password from step 19.

Press on Connect.



# Android Kali NetHunter Rootless Install

30. You now should have Rootless Kali NetHunter GUI on your Android Phone!



# Get more information

1. Website: <https://www.youtube.com/davidbombal>
2. Website: <https://store.nethunter.com/>
3. Website: <https://www.kali.org/docs/nethunter/nethunter-rootless/>

## Termux problems with Android 12:

1. <https://github.com/termux/termux-app/issues/2366>

