

Android Basics





Agenda

1. What is Android?
2. Android Tour
3. Questions

What is Android?

What is Android?

- Android is an open-source, mobile operating system created by Google.
- An Operating System (or OS) is the software that allows your computer to run.
- For example, many desktops and laptops have an Operating System called Windows.





Android History

- The first popular tablets and smartphones were developed by Apple, which created a custom operating system called iOS.
- After the success of the iPad/iPhone, other companies wanted to sell mobile devices too but iOS was Apple exclusive. In response to the demand for an alternative operating system, Google purchased and developed an open-source OS called Android.

SAMSUNG

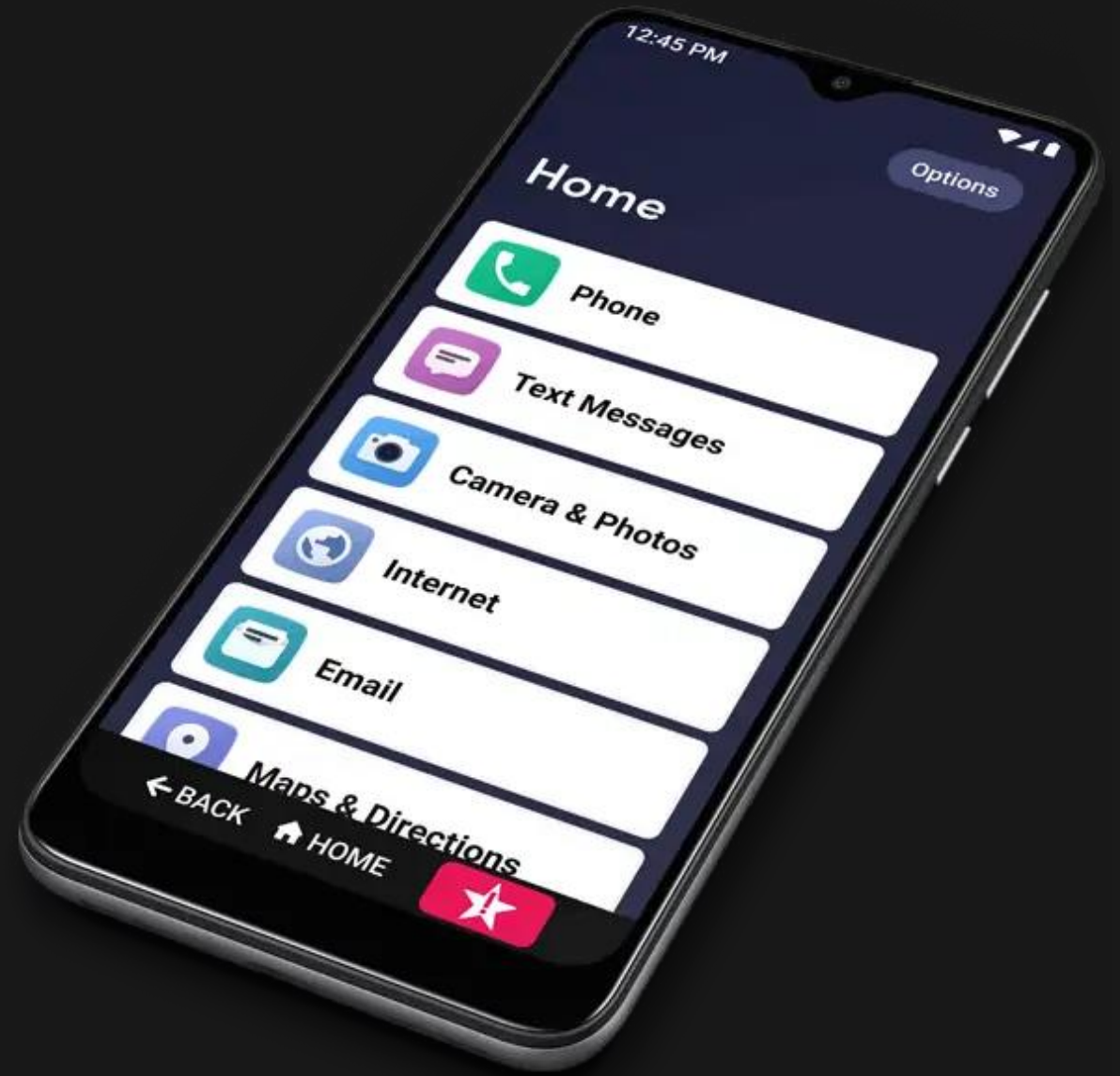
1+ ONEPLUS

oppo



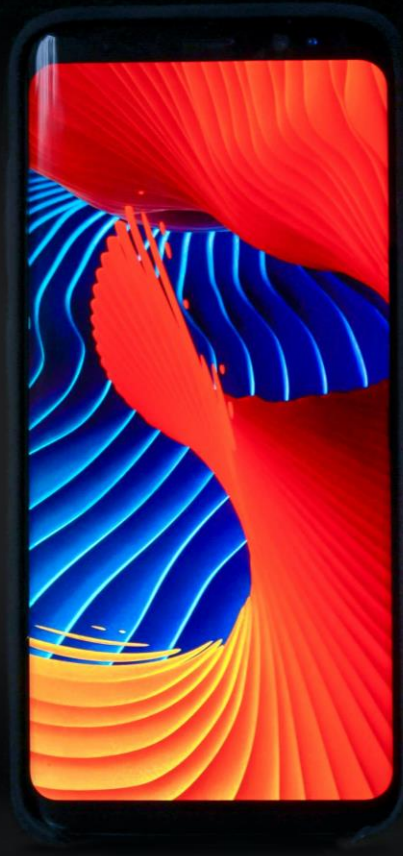
motorola

amazon





Understanding Android Differences



- **Variety in Android devices is due to several different factors.**
 - **Android OS Version: Kit-Kat, Jellybean, Lollipop, Marshmallow, Nougat?!**
 - **Developer differences: Samsung, HTC, LG**



Unlike iOS, which exists only on the iPhone and is developed by one company, Android updates can be sporadic. Therefore are many different versions of Android on the market that you might see!

List of Android Versions and Initial Stable Release Dates



Android 1.0
September 23, 2008



1.5 - Cupcake
April 27, 2009



1.6 - Donut
September 15, 2009



2.0/2.1 - Éclair
October 26, 2009



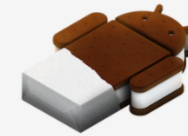
2.2 - Froyo
May 20, 2010



2.3 - Gingerbread
December 6, 2010



3.0 - Honeycomb
February 22, 2011



4.0 - Ice Cream Sandwich
October 18, 2011



4.1/4.3 - Jelly Bean
July 9, 2012



4.4 - KitKat
October 31, 2013



5.0 - Lollipop
November 12, 2014



6.0 - Marshmallow
October 5, 2015



7.0 - Nougat
August 22, 2016



8.0 - Oreo
August 21, 2017



9.0 - Pie
August 6, 2018



Android 10
September 3, 2019



Android 11
September 8, 2020



Android 12
October 17, 2021

| Name | Internal codename | Version number(s) | Initial stable release date | Supported (security fixes) | Latest security patch ^[15] (service life) |
|----------------------------|----------------------|-------------------|-----------------------------|----------------------------|--|
| Android 1.0 | N/A | 1.0 | September 23, 2008 | No | N/A |
| Android 1.1 | Petit Four | 1.1 | February 9, 2009 | No | |
| Android Cupcake | Cupcake | 1.5 | April 27, 2009 | No | |
| Android Donut | Donut | 1.6 | September 15, 2009 | No | |
| Android Eclair | Eclair | 2.0 | October 27, 2009 | No | |
| | | 2.0.1 | December 3, 2009 | No | |
| | | 2.1 | January 11, 2010 | No | |
| Android Froyo | Froyo | 2.2 – 2.2.3 | May 20, 2010 | No | |
| Android Gingerbread | Gingerbread | 2.3 – 2.3.2 | December 6, 2010 | No | |
| | | 2.3.3 – 2.3.7 | February 9, 2011 | No | |
| Android Honeycomb | Honeycomb | 3.0 | February 22, 2011 | No | |
| | | 3.1 | May 10, 2011 | No | |
| | | 3.2 – 3.2.6 | July 15, 2011 | No | |
| Android Ice Cream Sandwich | Ice Cream Sandwich | 4.0 – 4.0.2 | October 18, 2011 | No | |
| | | 4.0.3 – 4.0.4 | December 16, 2011 | No | |
| Android Jelly Bean | Jelly Bean | 4.1 – 4.1.2 | July 9, 2012 | No | |
| | | 4.2 – 4.2.2 | November 13, 2012 | No | |
| | | 4.3 – 4.3.1 | July 24, 2013 | No | |
| Android KitKat | Key Lime Pie | 4.4 – 4.4.4 | October 31, 2013 | No | October 2017 (48 months) |
| | | 4.4W – 4.4W.2 | June 25, 2014 | No | ? |
| Android Lollipop | Lemon Meringue Pie | 5.0 – 5.0.2 | November 4, 2014 | No | November 2017 (36 months) |
| | | 5.1 – 5.1.1 | March 2, 2015 | No | March 2018 (36 months) |
| Android Marshmallow | Macadamia Nut Cookie | 6.0 – 6.0.1 | October 2, 2015 | No | August 2018 (34 months) |
| Android Nougat | New York Cheesecake | 7.0 | August 22, 2016 | No | August 2019 (36 months) |
| | | 7.1 – 7.1.2 | October 4, 2016 | No | October 2019 (36 months) |
| Android Oreo | Oatmeal Cookie | 8.0 | August 21, 2017 | No | January 2021 (41 months) |
| | | 8.1 | December 5, 2017 | No | October 2021 (46 months) |
| Android Pie | Pistachio Ice Cream | 9 | August 6, 2018 | No | January 2022 (41 months) |
| Android 10 | Quince Tart | 10 | September 3, 2019 | Yes | February 2022 (29+ months) |
| Android 11 | Red Velvet Cake | 11 | September 8, 2020 | Yes | |
| Android 12 | Snow Cone | 12 | October 4, 2021 | Yes | |
| Android 12L | Snow Cone v2 | TBA | Q1 2022 | Presupported | N/A |
| Android 13 | Tiramisu | 13 | Q3 2022 | Presupported | N/A |



Android Versions

- **Not all Androids will update to the newest version of Android at the same time, and some will never be able to update!**
- **It's not bad to own a device with an older version of Android- they still work well for simple tasks like sending texts, check emails and browsing the web. However, the device may not be compatible with current gen apps and won't receive important security updates.**



NUU Mobile NU2S 4.5" qHD Android Lollipop 4G Smartphone (Black)

by NUU

★★★★☆ - 11 customer reviews
| 14 answered questions

Price: **\$39.98** & FREE Shipping. [Details](#)

- 4.5" qHD touchscreen — 960x540 resolution (245 pixels per inch)
- Dual SIMs with 4G power
- 5 MP rear camera / 2 MP front camera
- 4 GB internal storage / 32 GB expandable memory (microSD card)
- 2,000 mAh battery (removable)

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Buy Used
\$34.99

In addition, it's possible for brand new devices to ship with older Android software. That's why you can find Android phones and tablets that are very cheap - they are often running on older versions of Android!



Since Android phones are made by different companies, they may physically vary a lot from each other.

Differences include size, placement (or lack) of buttons, camera quality, screen quality, etc... (Samsung Galaxy S21 & Jitterbug 2).

This also affects how much storage the device has, microSD card availability and the charger.



Understanding Android Apps



What are apps?









An app is a piece of software with a dedicated purpose such as checking email, going online, etc.

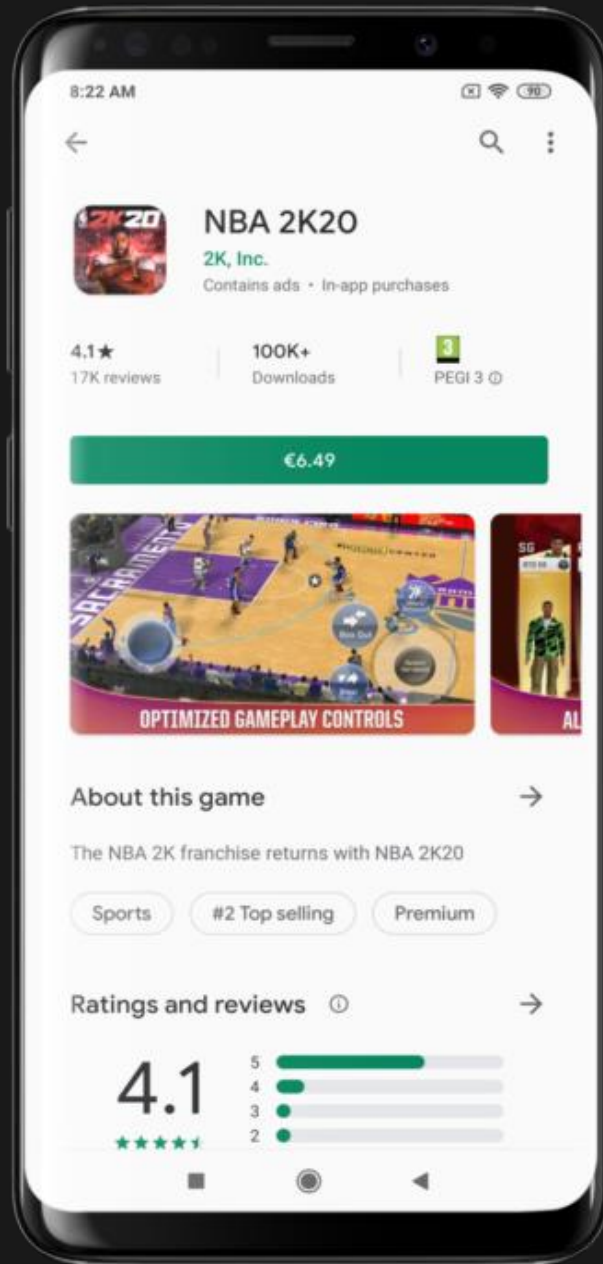


- **Android devices** are different than **Apple devices** because there are two companies involved in their creation:
 - **Software:** Google
 - **Hardware:** Samsung, LG, HTC, Huawei, Motorola, etc.
 - **The exception is the Google Pixel, which is made entirely by Google.**
- Both companies put apps on Android devices, often competing for the same purpose!



For example, on a Samsung device...

- **Internet:**  Browser  Google Chrome
- **Mail:**  Mail  Gmail
- **Photos:**  Gallery  Photos
- **Apps:**  Galaxy Apps  Playstore



You can also add apps from third-party companies through the **Google Playstore**. Some of these apps are free, while others may have one-time, monthly or annual fees.

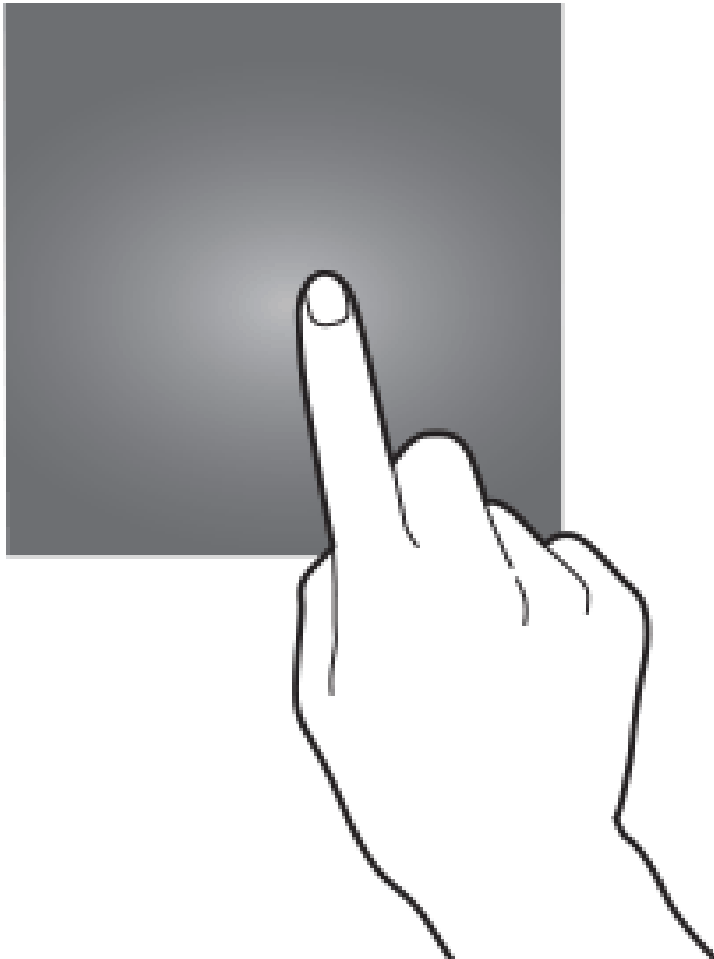


Basic Navigation



There are two ways to navigate your device: gestures and buttons.

Gestures are specific ways to interact with the touchscreen in order to perform certain actions.

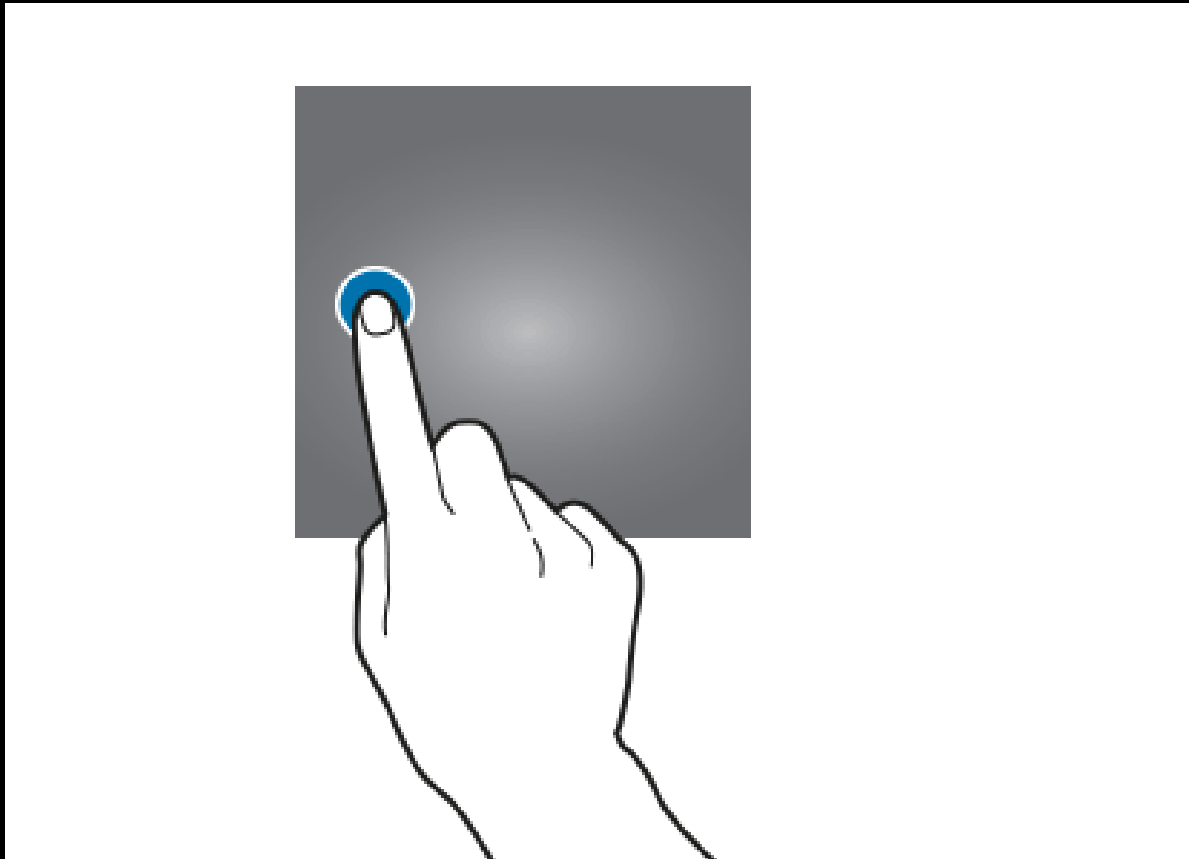


Tap: Most basic gesture. Tap to open an app, select an option, open the keyboard.

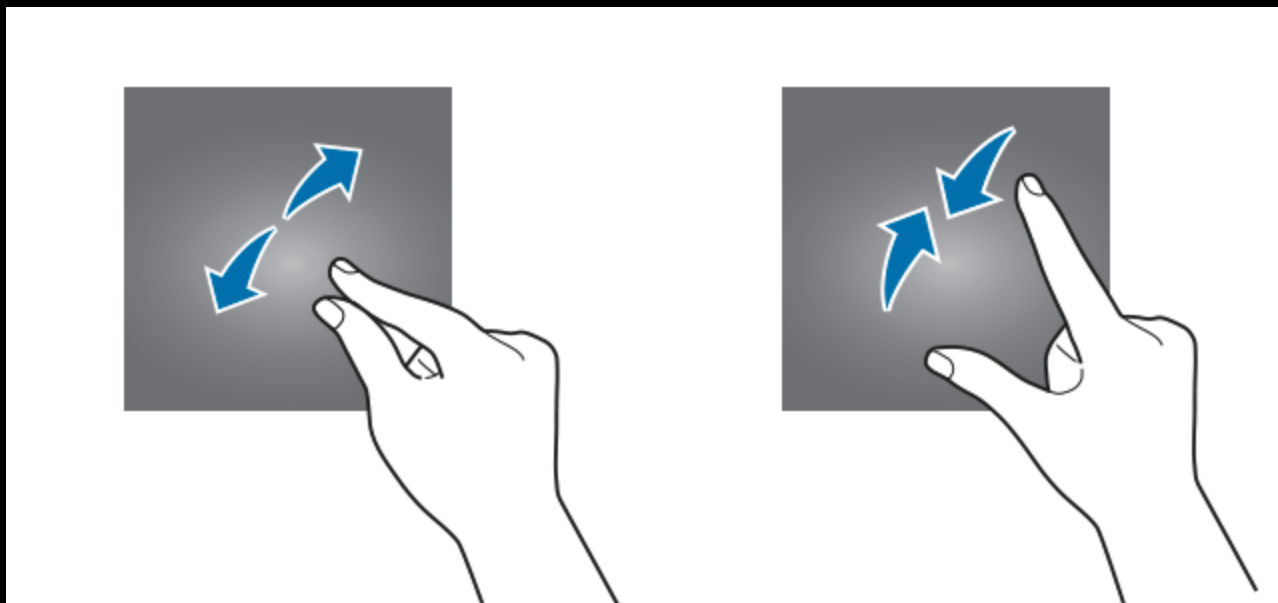


Tap & Hold: Allows you to open menu online, bring up extra options.

Tap & Hold + Drag: Move apps on the homescreen

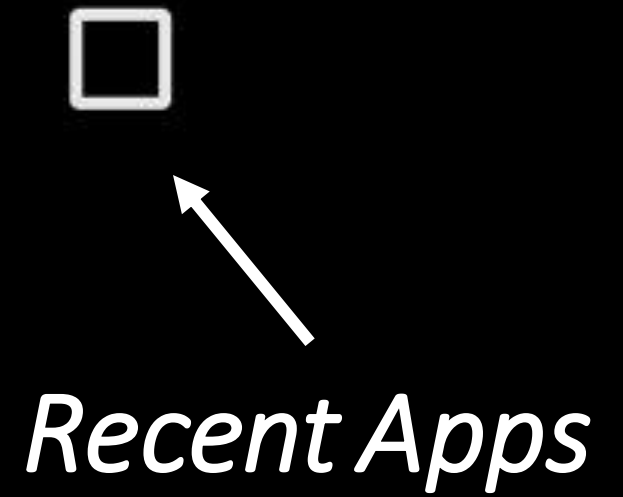
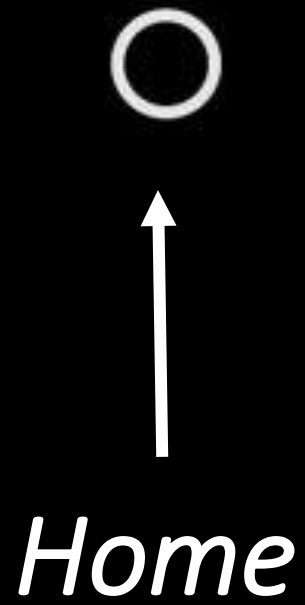
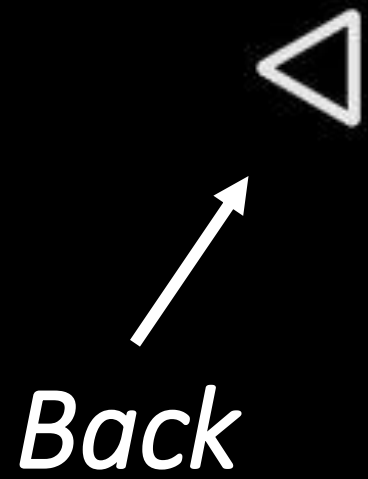


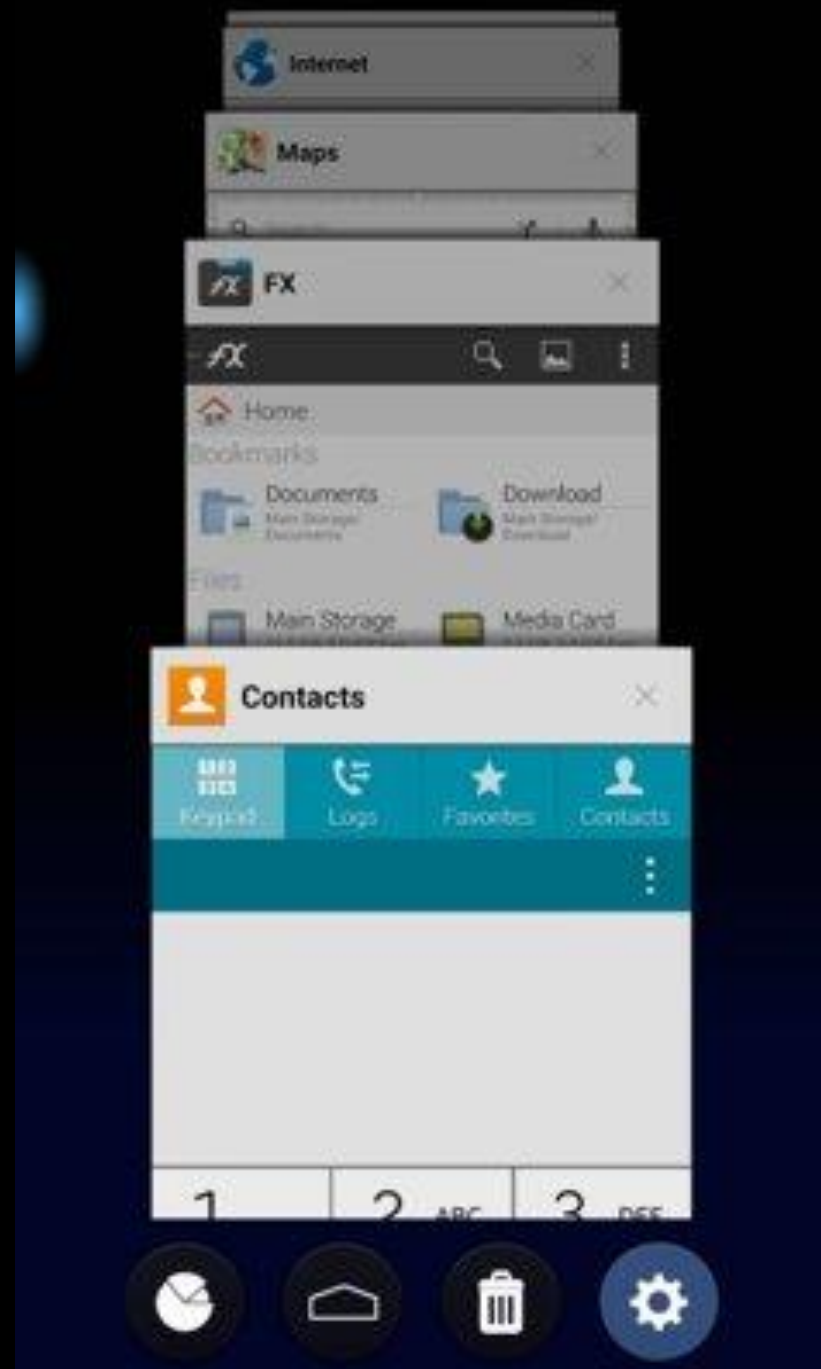
Swipe: (Left/Right, Up/Down) Allows you to scroll between pages on the homescreen, unlock screens, bring down menus, navigate scrolling menus.



Pinch: Zoom out
Spread: Zoom in

Android devices also have a
command menu.





There are also a few physical buttons you might have on your device including **power** and **volume buttons!**





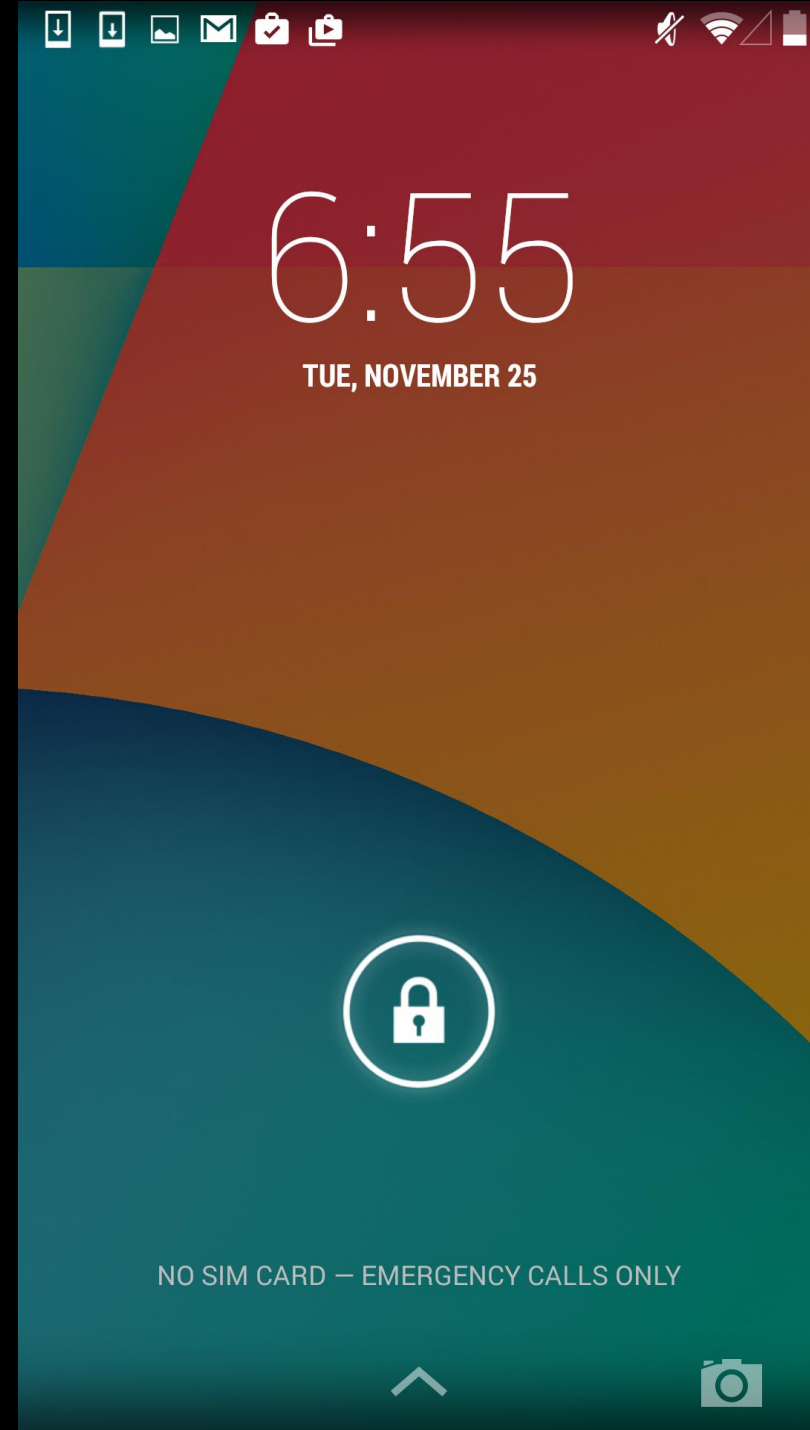
Some devices may also have a **physical home button** although that is becoming more difficult to find over time.

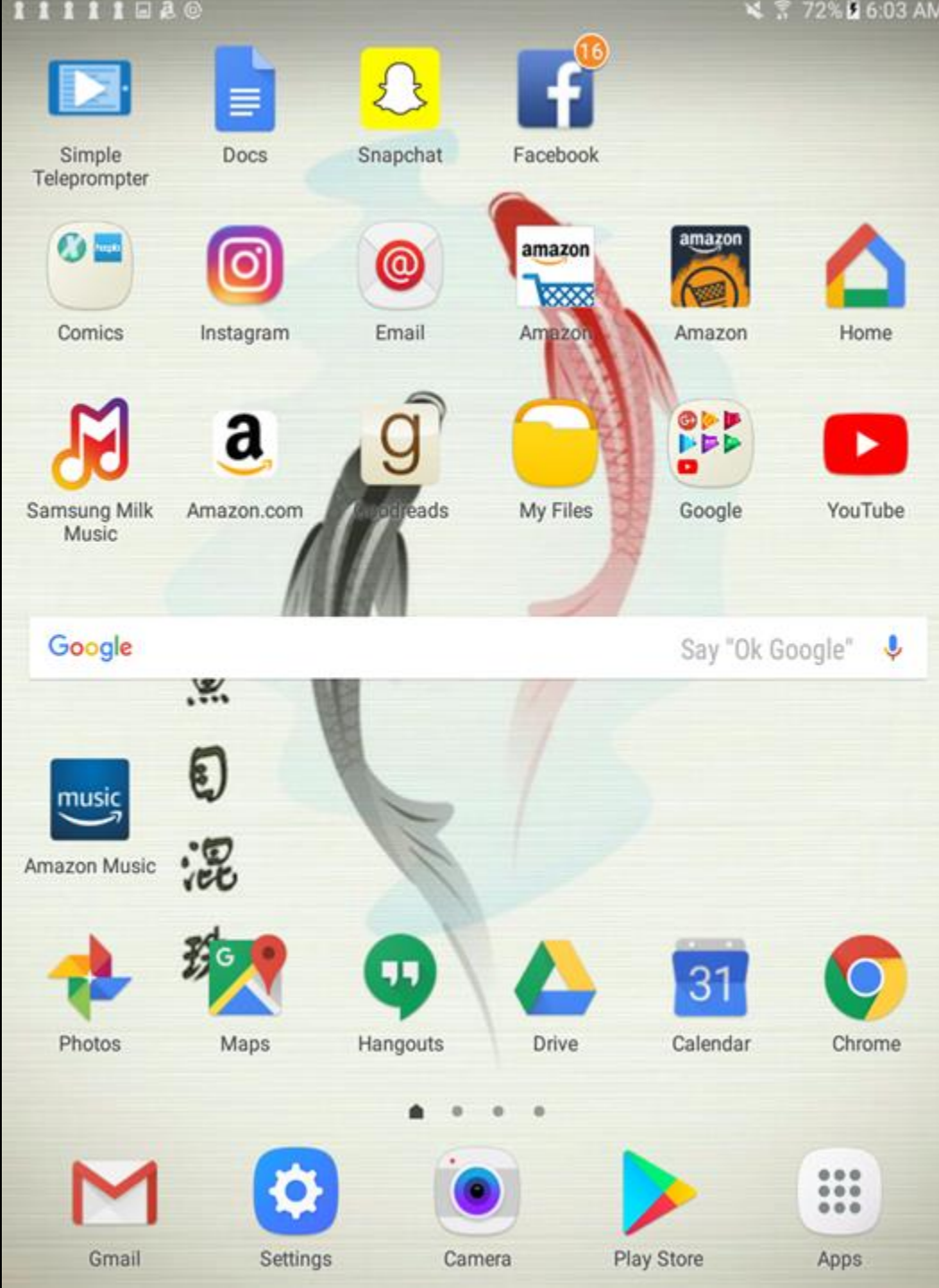
There are also several important places you should know on your device. You'll be returning to these locations frequently so it's important to know what they are called!

Lockscreen

This is usually to first screen that you'll see when you turn on your device. You may be asked to swipe from the bottom of the screen, or input a code/password.

This screen can be enabled/disabled from the settings menu.



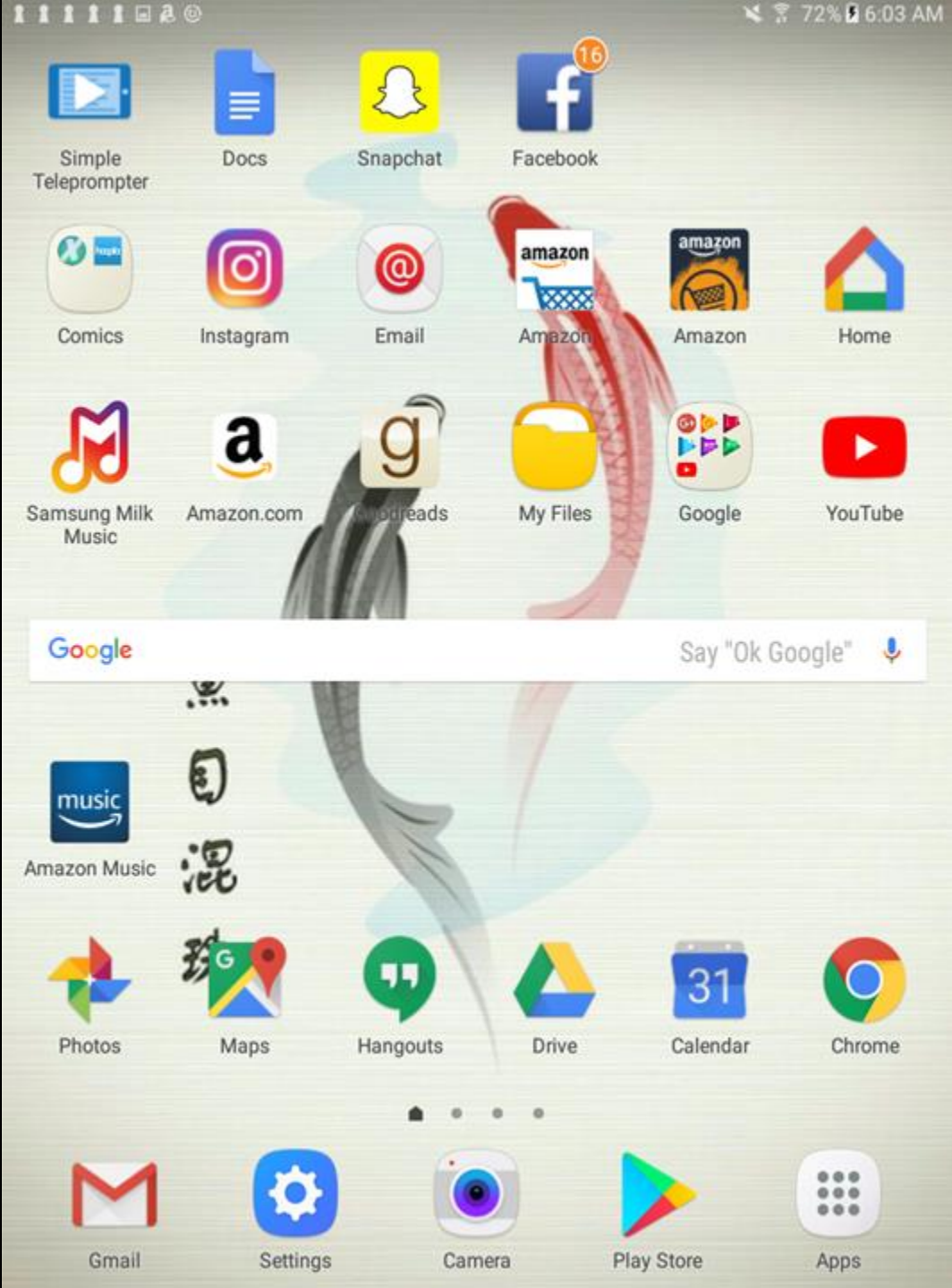


Homescreeen

This is the main page you see when you turn on and unlock your tablet.

The homescreen has multiple pages for organizing apps and widgets.

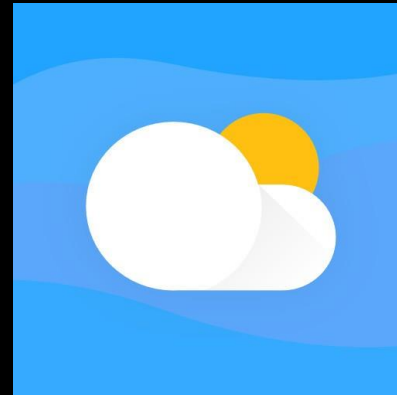
Apps



Widgets

Apps: are represented by icons. To use them, tap the icon to open the app.

Widgets: are apps that run on the homescreen. You don't need to click on them to see information.



App



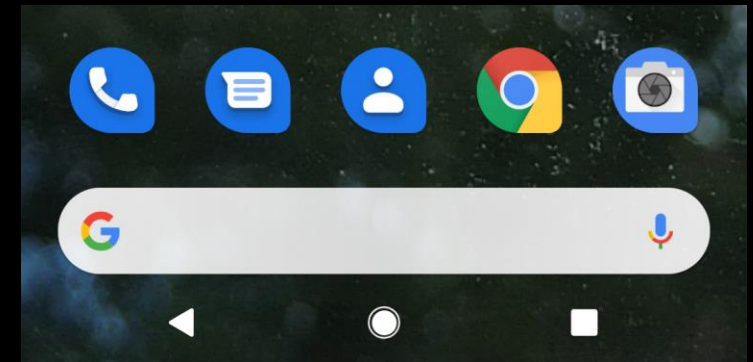
Widget

Apps: are represented by icons. To use them, tap the icon to open the app.

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App



Widget

Status Bar

The status bar is located at the top of the screen and includes important system details such as battery life, data connections, time, notifications and more.

Drag down the menu to see quick settings and read notifications!
(This is done by swiping from the top of the screen).



Simple
Teleprompter



Docs



Snapchat



Facebook

Right side: *time, battery, data, Wi-Fi, etc.*



72% 6:03 AM



Simple
Teleprompter



Docs

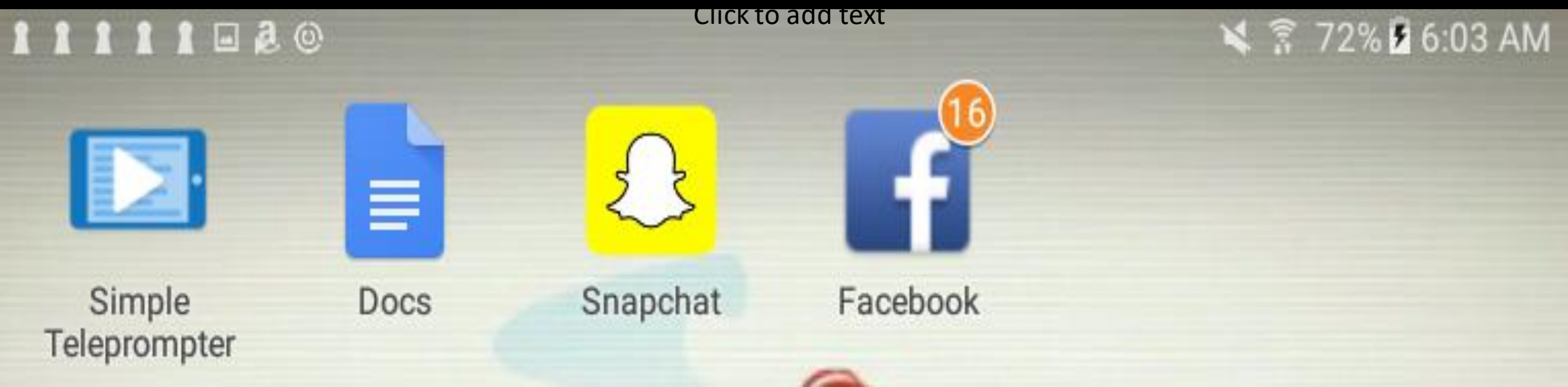


Snapchat



Facebook

Left side: *Notifications*



6:03 AM Wed, October 4



Wi-Fi

TheDudeRe...



Location



Mute



Auto rotate



Bluetooth



Power saving



Airplane mode



Auto

Quick connect

Tap here to connect devices



Did you just sign in?

7/1/17

A new device accessed your Google Account

[REVIEW ACCOUNT ACTIVITY](#)

lpl800@gmail.com



Did you just sign in?

6/21/17

A new device accessed your account
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Opening and Closing Apps

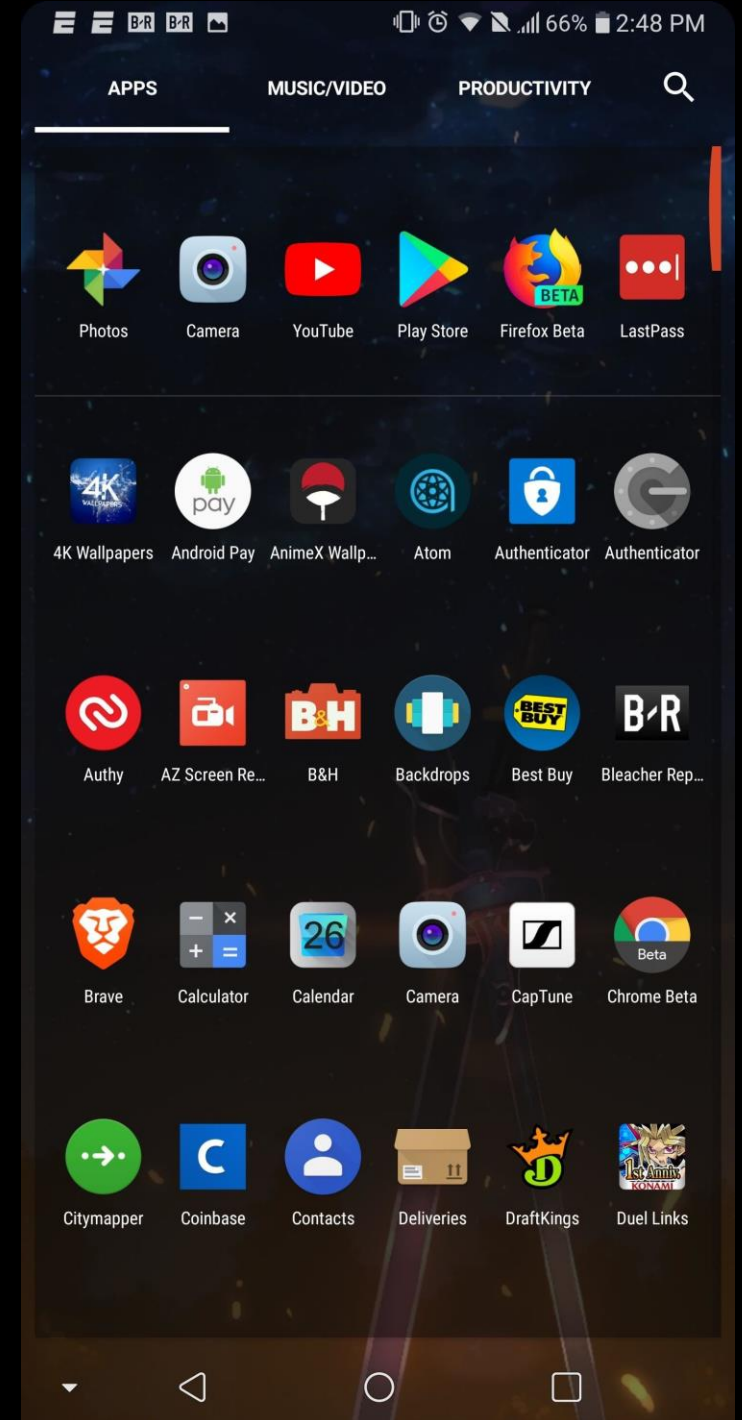
To open an app, tap on it.

To get out of an app, tap the home button.



Finding an app

Looking for an app that you don't see on the homescreen? Swipe up from the bottom of the screen (or tap the  icon on older devices).

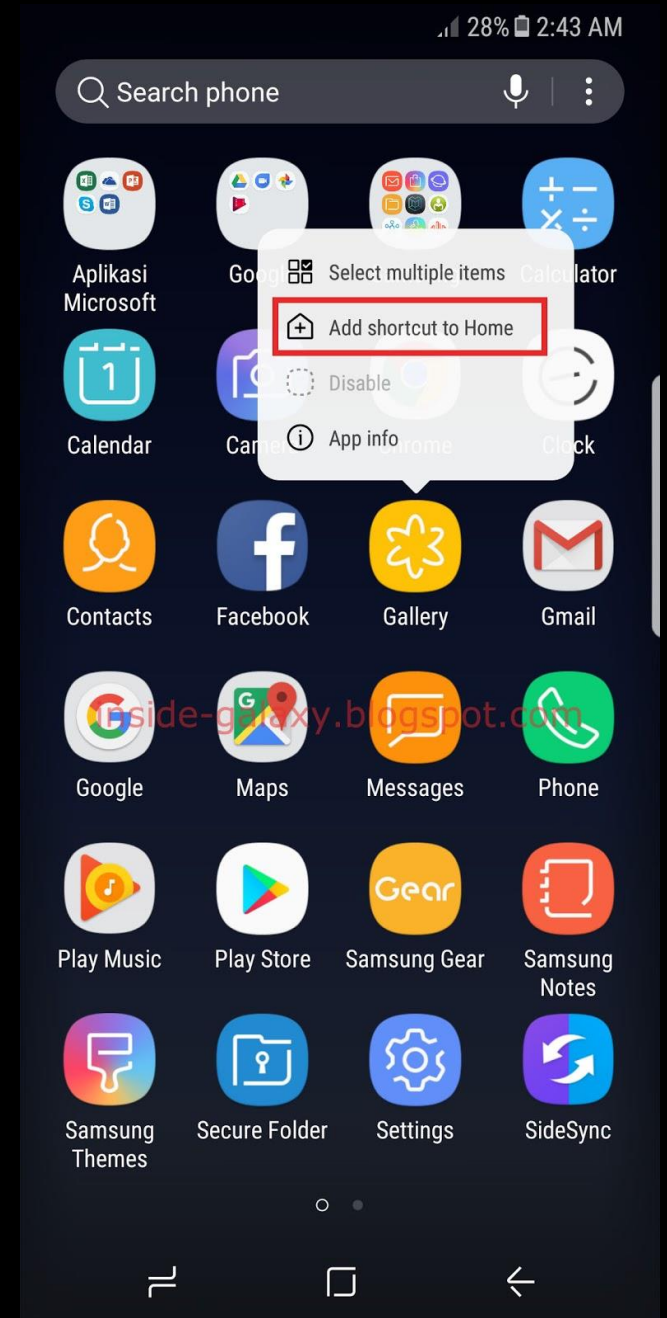


Adding apps to the homescreen

To add an app to the homescreen, open the app drawer and find the app you want to move. Now hold your finger down on it. A menu will appear. Choose "add shortcut to homescreen".

Alternatively, you can hold and drag the app. The screen will switch to the homescreen and you can drop it wherever you want.

To move the app again, just hold your finger down on it and drag it to the desired location.

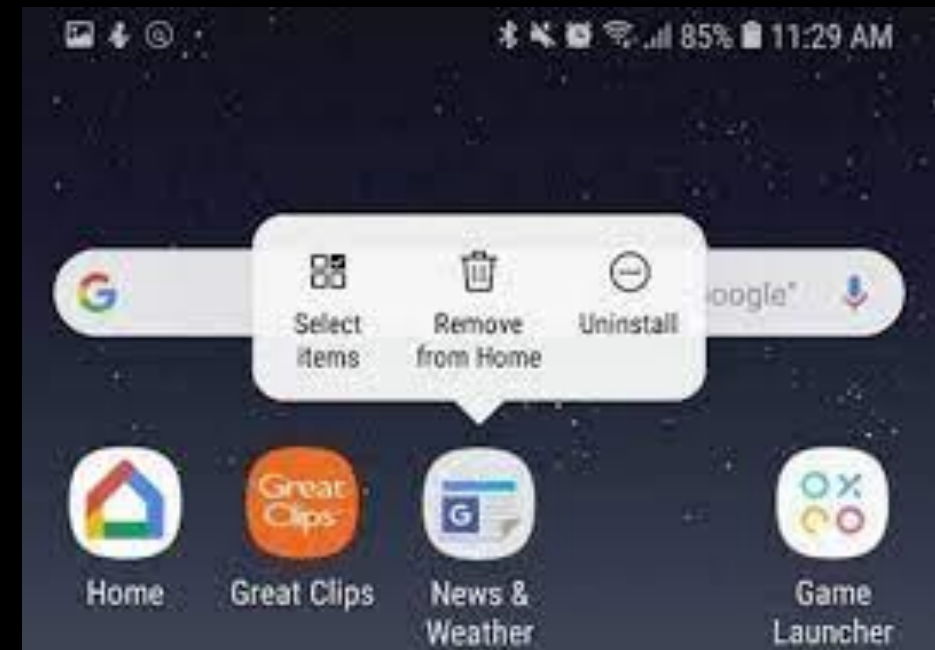


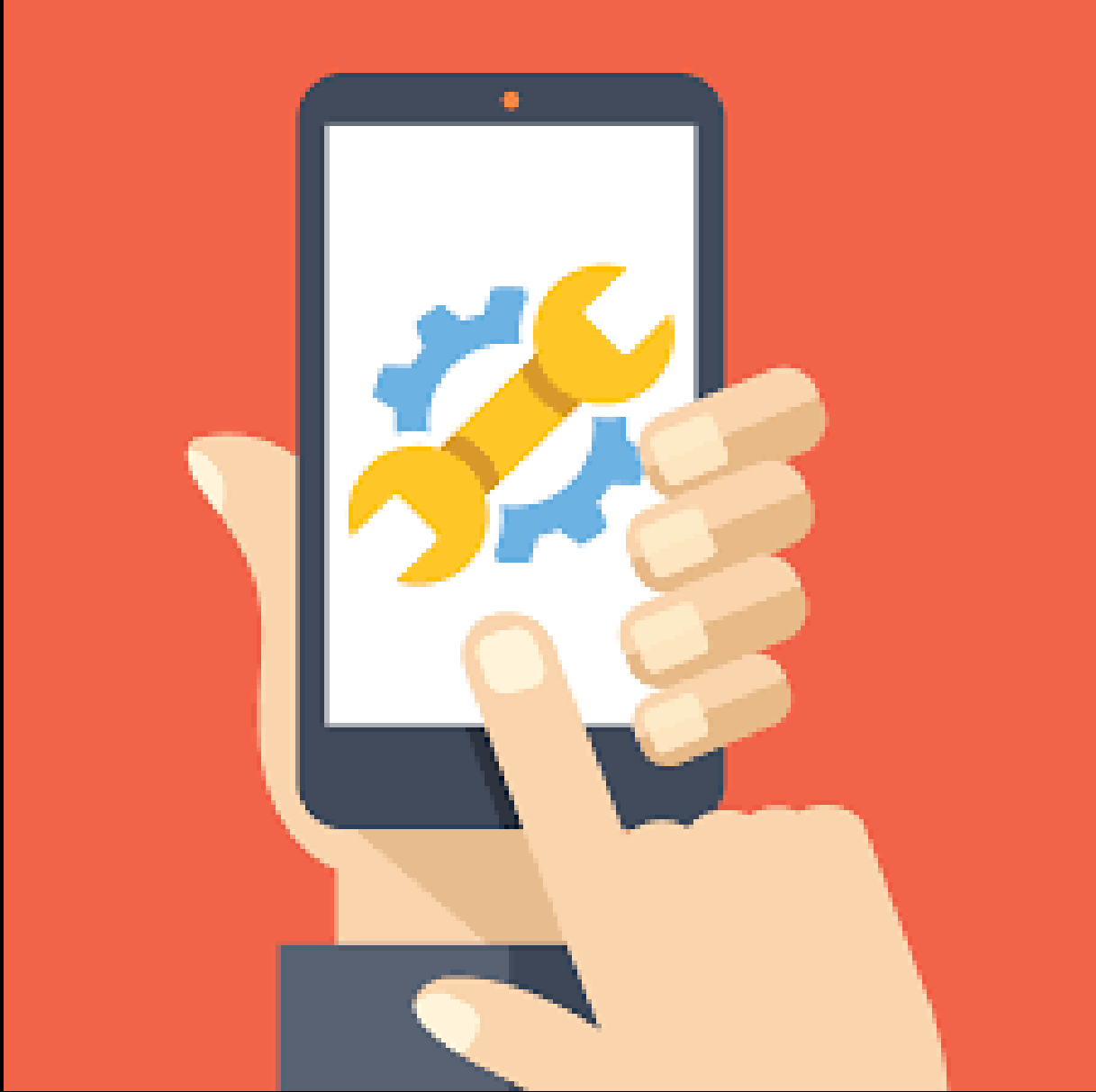
Removing apps

To remove an app from the homescreen, hold your finger down on it and select remove from the menu.

To remove from the device, select uninstall. (You can always redownload removed apps from the Google Playstore).

Alternatively, you may get these options at the top of the screen instead of in a menu. Drag the app to the option you want.

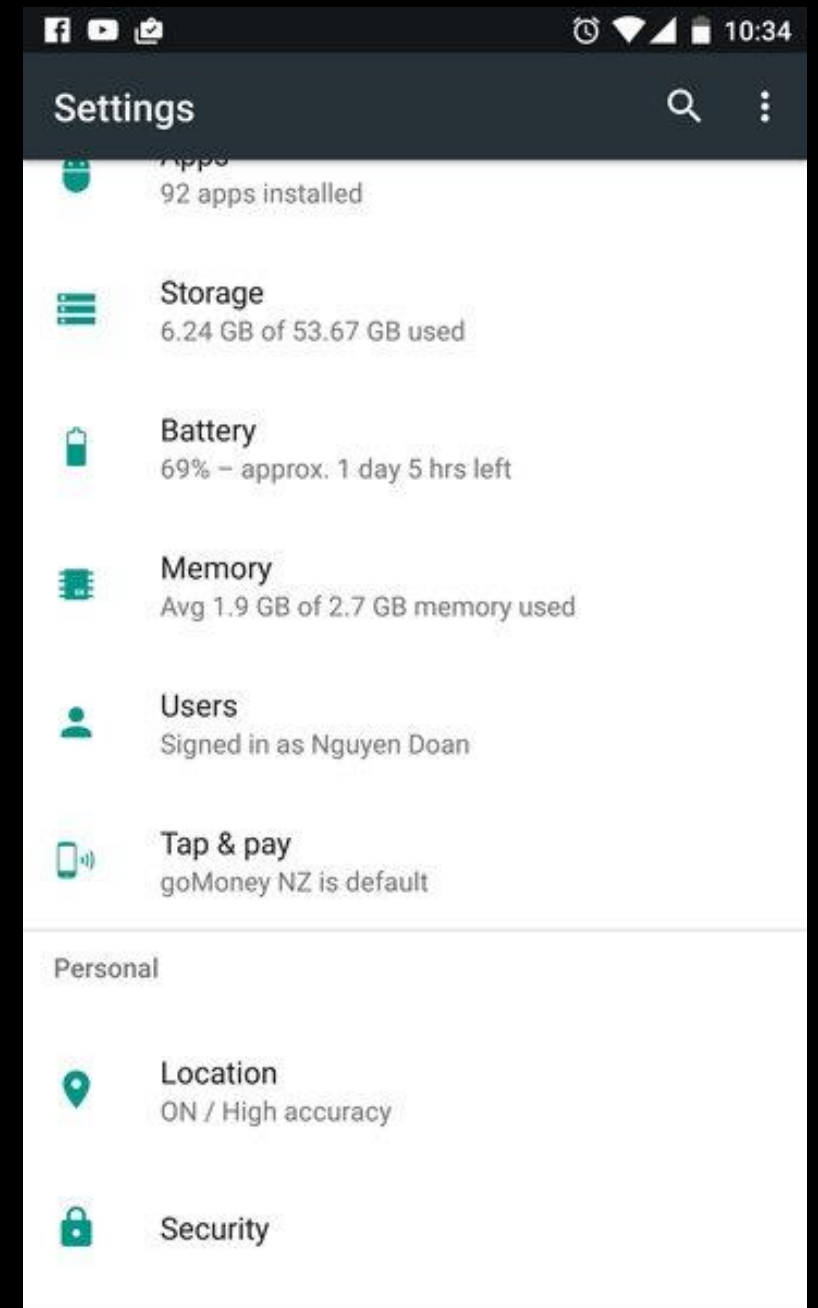




Settings

Settings Menu

This is where you can change important settings for your device including the brightness the screen, the size of the text, the types of notifications your device receives, etc. You can also connect to WiFi/Bluetooth and read important information about your device. To find settings, just look for the icon shaped like a gear!



Wi-fi

- Wi-fi is a way to connect to the internet wirelessly.
- Wi-fi signals are emitted like radio signals by internet routers. Mobile devices can connect to these signals. There are Wi-fi signals everywhere! Homes, coffee shops, waiting rooms, libraries, etc.
- Two types of networks:
 - **Secured:** These networks need a password to connect. You can identify them by the lock symbol next to the network name.
 - **Unsecured:** Some Wi-fi networks need a password to connect. This is common for homes and businesses. Beware! Since anyone can connect, your information is vulnerable.



Device Care Settings

- **Storage:** This tool will calculate how much storage is available on your device, how much storage has been used and what your storage is being used for.
- **Battery:** Similar to storage, this tool tells what is using up your battery life.

