# How to become an Android Developer

If you want to become an android developer for 2021 and beyond, this guide will help you!

Why Android? - Well, Android takes up almost exactly two thirds (64%) of all [Mobile OS platforms!](https://buildfire.com/ios-android-users/) It's readily available, easy to use/learn/etc.

With faster IDEs/Phones/Computers and high demand, this is the best time to learn android development & design

## Common Questions and difficulties I faced

* Which platform to use Java? Kotlin? Flutter? React Native? Xamarin?
* How do I make money in college?
* How much money will it take?
* How much time will it take?
* How will this not impact my placement study?
* What should be the strategy and resources
* How to create a game line PubG/GTA?

## Some advantages of learning Android Development

1. Great Salaries
2. Outside Job Opportunities (Freelancing, App Owner etc.)
3. Can make you a lot of side money in college

## Requirements

1. A basic Laptop with 4GB ram and 64 bit OS will do. [More here](https://developer.android.com/studio)
2. SSD will give you a performance boost!
3. Extra RAM will give you a boost
4. Using your phone instead of AVD will give you a boost if your computer is low on resources

## Types of Applications - Native and Hybrid Apps

1. Native apps - Design for a particular android os
2. Hybrid apps - Design for multiple android os

### Hybrid apps advantages:

* Can build for multiple platforms
* Easy to learn
* Many companies use specific tools. See [Showcase](https://flutter.dev/showcase) for more

### Hybrid apps flaws:

* Absence of free advanced tools.
* Flaws due to hardware
* Costly license(like in Xamarin)/paid plugins and tools
* Low performance at times
* [Read more here](https://clever-solution.com/blog/top-10-hybrid-mobile-app-development-frameworks)

## XML vs Java Code

* XML consists of the views and viewgroups.
* Java/Kotlin contains the logic

## Job Roles

1. Android Developer
2. Android Engineer
3. Android Testing

## Free Learning Resources

* Android Resource #0 - [Learn Java](https://www.youtube.com/c/CodeWithHarry/search?query=java%20tutorial)
* Android Resource #1 - Learn Android In One Video ([CodeWithHarry](https://www.youtube.com/playlist?list=PLu0W_9lII9ahKZ42vg2w9ERPmShYbYAB7)) **(ETA: 1-2 days)**
* Android Resource #2 - [Android Developer Fundamentals + Advanced (Java)](https://developer.android.com/courses) **(ETA: 30 days)**
* Android Resource #3 - [Android Course by CodeWithHarry](https://www.youtube.com/playlist?list=PLu0W_9lII9aiL0kysYlfSOUgY5rNlOhUd) **(ETA: 15 days)**
* Android Resource #4 - [Udacity Developing Android App](https://www.udacity.com/course/new-android-fundamentals--ud851) **(ETA: 1.5 months)**
* Android Resource #5 - [Documentation & Official Samples](https://developer.android.com/samples)
* Android Bonus Resource - [Android Launcher icon](https://romannurik.github.io/AndroidAssetStudio/icons-launcher.html#foreground.type=clipart&foreground.clipart=android&foreground.space.trim=1&foreground.space.pad=0.25&foreColor=rgba(96%2C%20125%2C%20139%2C%200)&backColor=rgb(68%2C%20138%2C%20255)&crop=0&backgroundShape=square&effects=none&name=ic_launcher)
* Android development is a never ending learning process. You build → you earn → you learn → you repeat!

## How to make money?

* Freelancing - App dev, Bug fixing, design, etc
* Play Store + Admob
* Internship/Jobs

## Other Resources you need to learn

1. Git + CI/CD
2. Database design fundamentals
3. Admob API
4. [Unity for](https://developer.android.com/games/develop/build-in-unity) Complex Games!
5. Data Structure & Algorithms

Stay up to date with the technology as it keeps evolving!