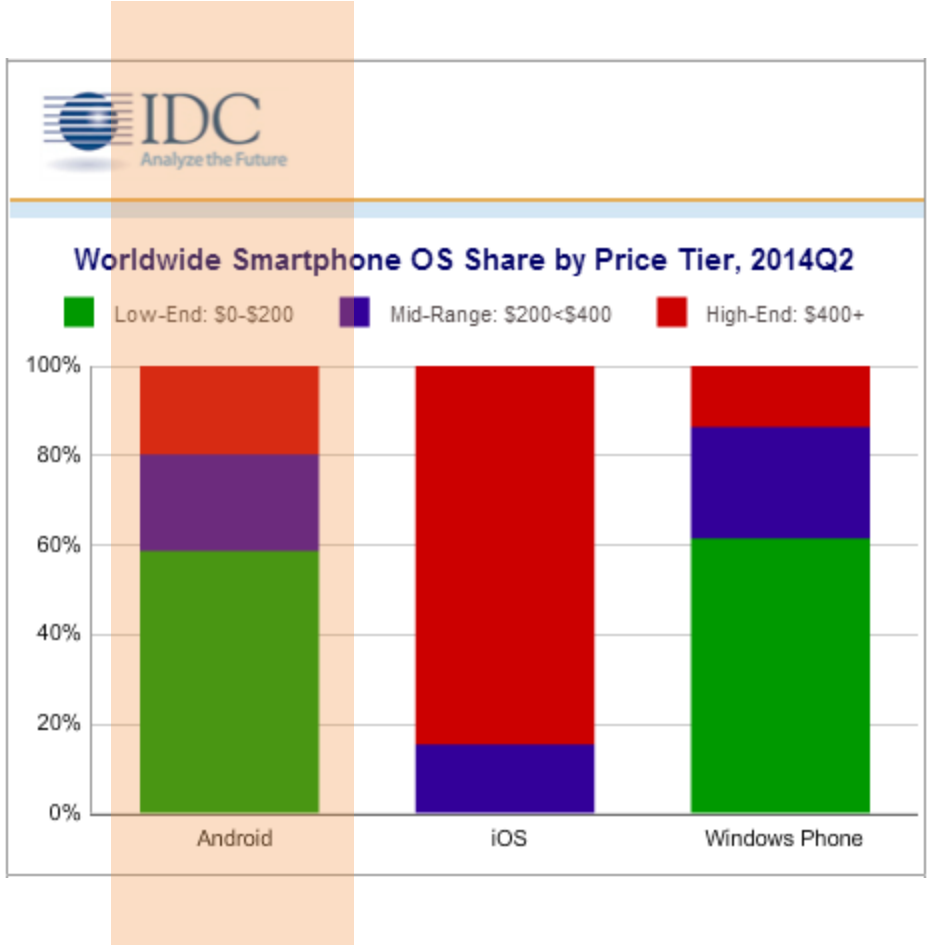
Android Application Development

Understand Mobile & Android Market

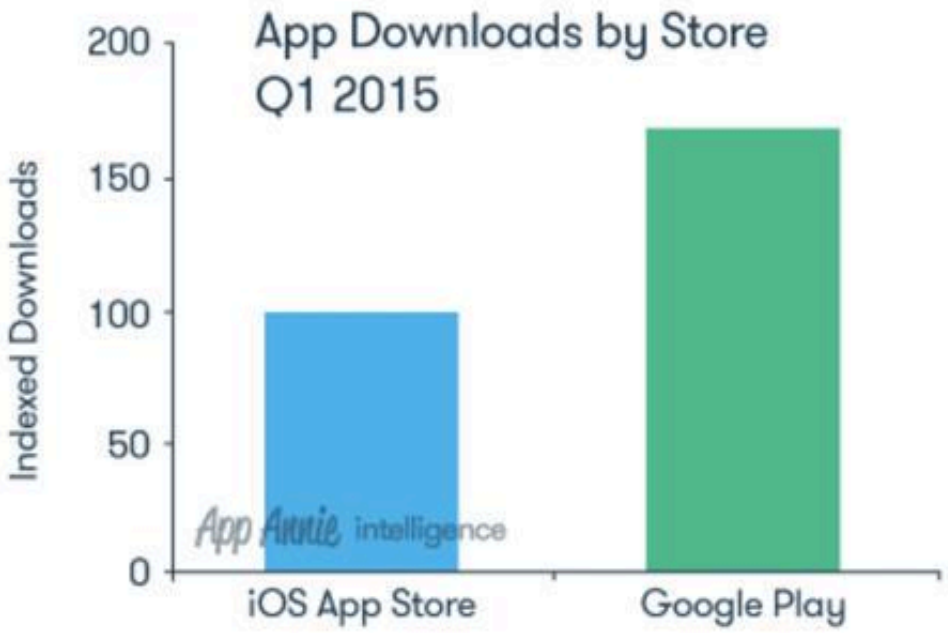
Smartphone Market Share

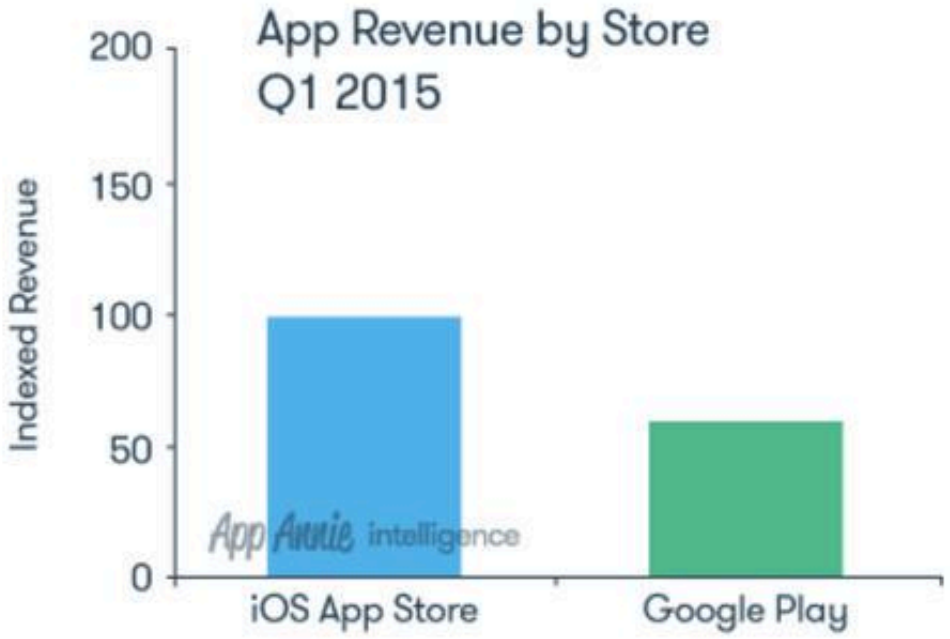
Operating System	2014 Unit Volumes	2014 Market Share	2013 Unit Volumes	2013 Market Share	Year-Over-Year Change
Android	1,059.3	81.5%	802.2	78.7%	32.0%
iOS	192.7	14.8%	153.4	15.1%	25.6%
Windows Phone	34.9	2.7%	33.5	3.3%	4.2%
BlackBerry	5.8	0.4%	19.2	1.9%	-69.8%
Others	7.7	0.6%	2.3	0.2%	234.8%
Total	1,300.4	100.0%	1,018.7	100.0%	27.7%

Worldwide Smartphone OS by Price Tier



App Download/Revenue

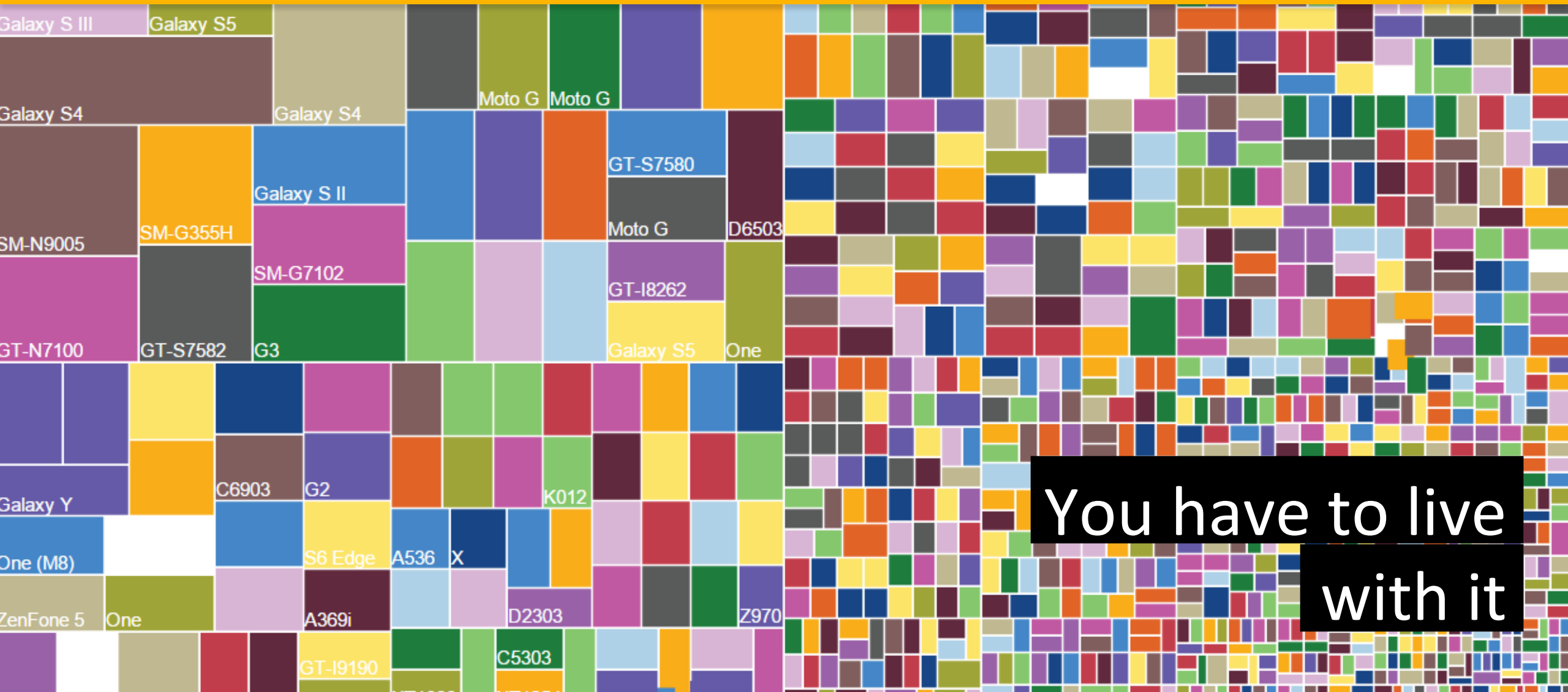




Android Developer: Damn High Demand

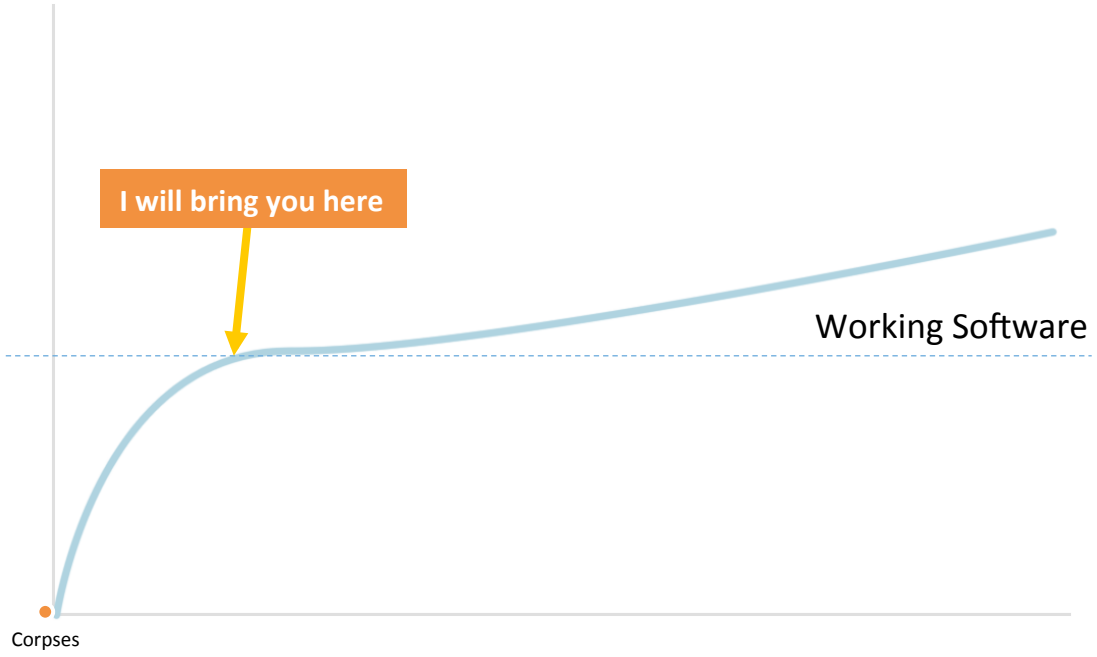
Some country
has already gone for
“Android First”

Fragmentation



You have to live with it

Learning Curve: Android



Android

Knowledge you needed to develop a working Android App

Server-Client

Layout

Garbage Collection

Fragmentation Overview

Backstack

View

UX

Memory Management

Lifecycle

UI XML

Deal with Fragmentation

CPU Utilization

Thread

How does Android's System work

Fragment

Crash Tracking

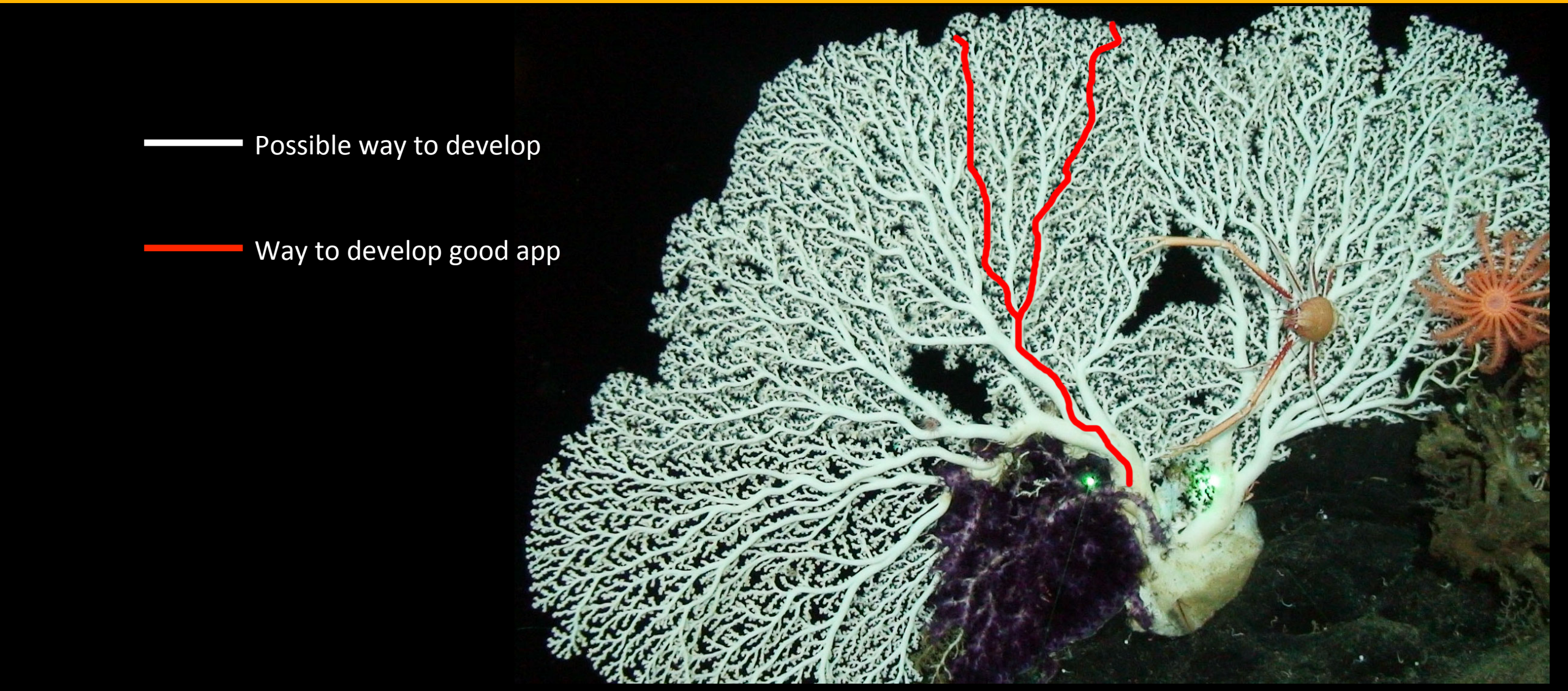
Permission System

ListView

RecyclerView

etc.

Pitfall: It is easy to develop Android App

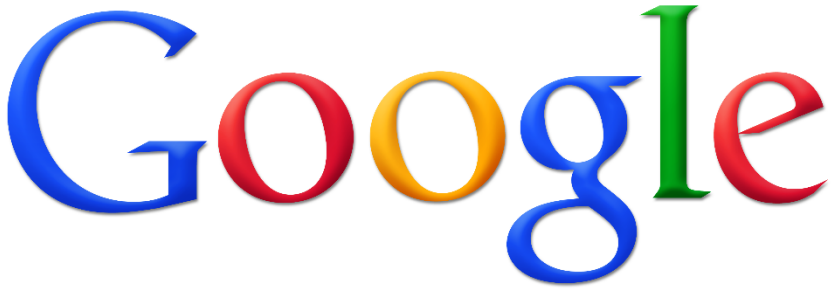


Good News !

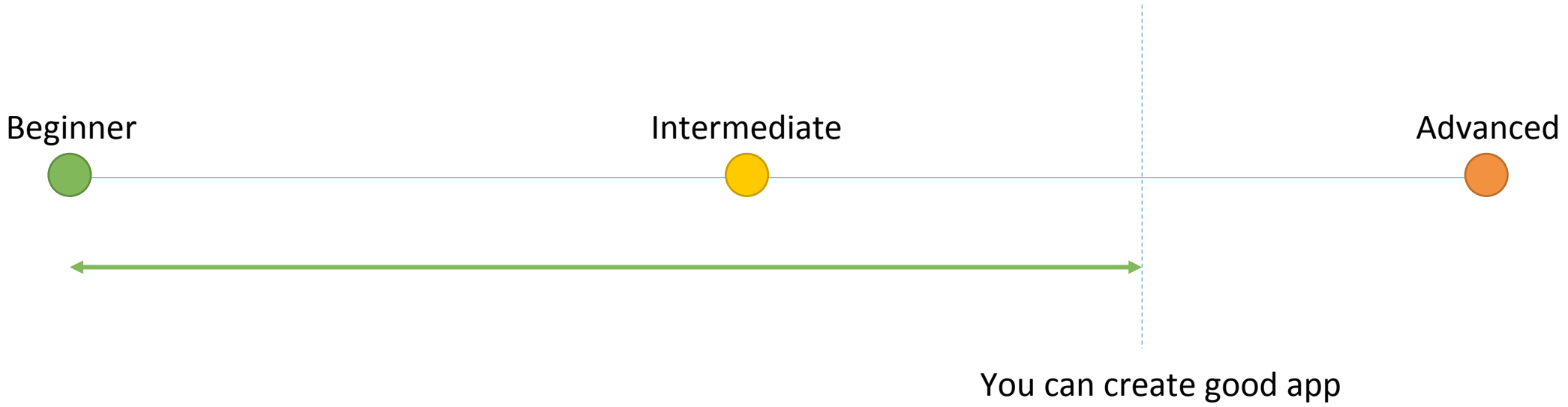
- Fragmentation is not a problem for Android app development anymore !
  - And it took 4 years …
  - And yes, I was in those 4 years fighting with it all along …
- Best Practices has already been out there !
  - (Just a year actually)
- There are a lot of useful & robust libraries out there !
  - There were a lot previously as well but 90% of them sucks … in the other words, you needed to risk your life with another one's code
  - Right now you can do a hard task in just one line of code
- You just need some guide

Course Overview

- In real life, I am not with you but Google is. I will give you the whole concept of Android system to let you have an idea what to search and be able to develop a good application



Course Overview

- Part 1 : Foundation
  - Bring you the Android world. Speak in the same language.
- Part 2 : Code Structure
  - MVC is the best start point
- Part 3 : Create a real app
  - Learn by practice
- Part 4 : Cool Down
  - Some additional things you might want to know

Difficulty Scale in this class