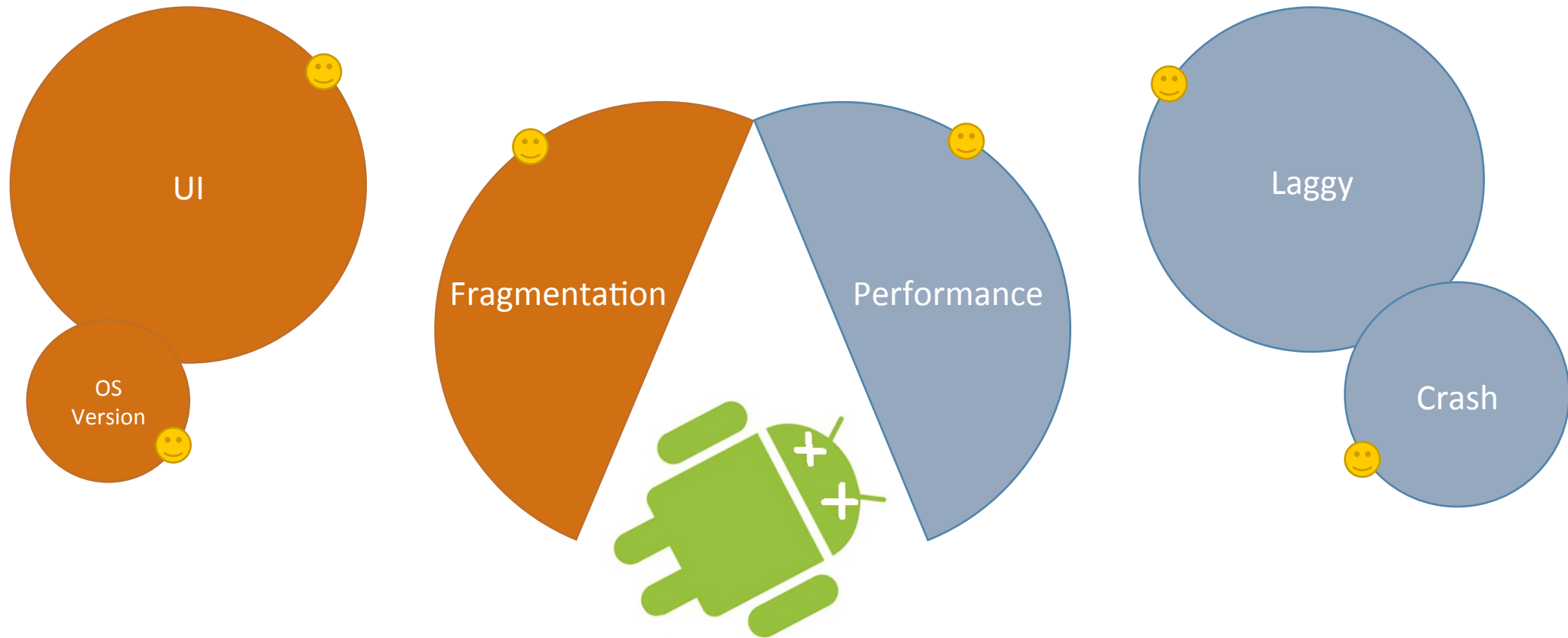




## Android Application Development

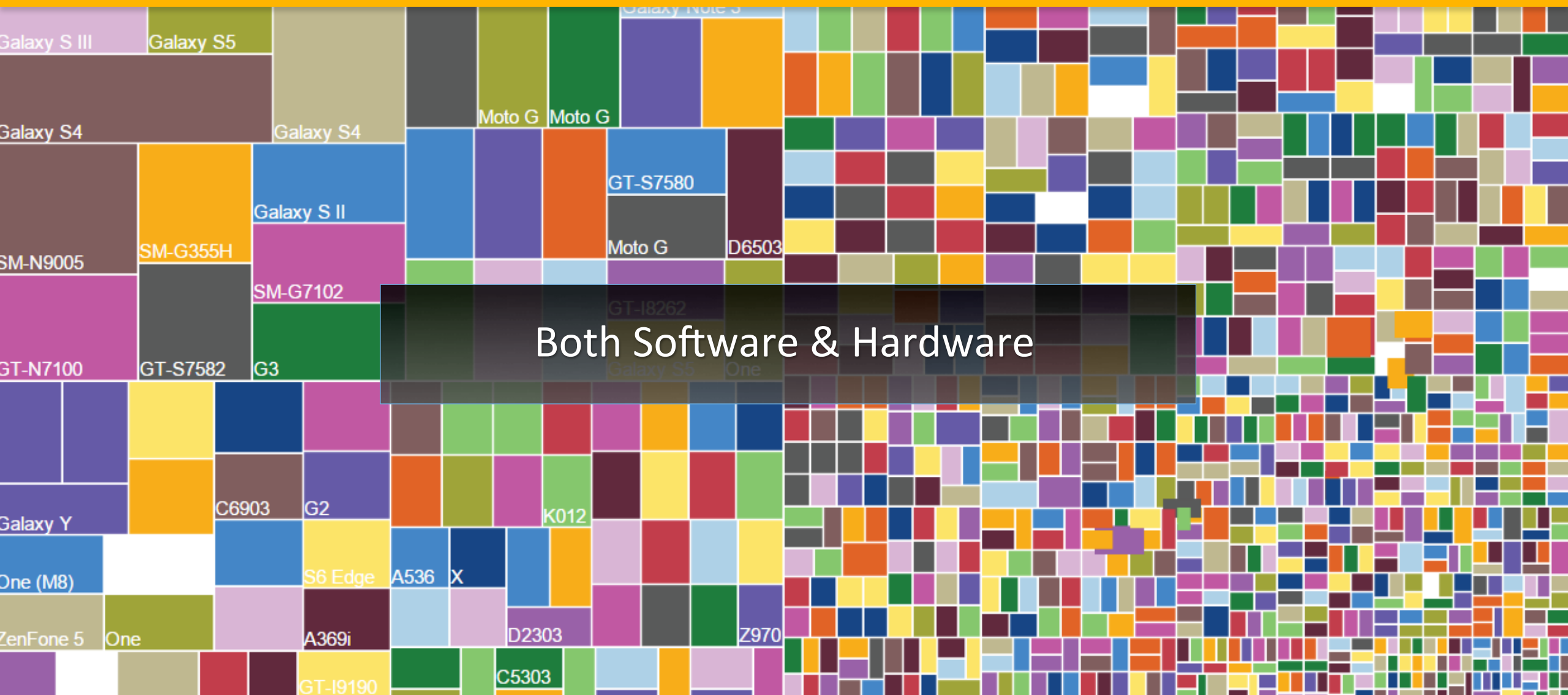
8 Biggest Reasons  
make an Android App  
sucks

# Common Problems



\* From my research through Play Store and talked to so many (Thai) developers

# 1) Don't know Fragmentation overview



# The real reason behind Android success

“Various & Cheap”



So many choices



Fragmentation

# Fragmentation: Hardware

Camera Resolution

Screen Resolution

**24,093**

Distinct Android devices seen this year

**18,796**

Distinct Android devices seen last year

**682,000**

Devices surveyed for this report.

**37.8%**

Samsung's share of those devices.

**1,294**

Device brands seen this year



Screen Size

RAM

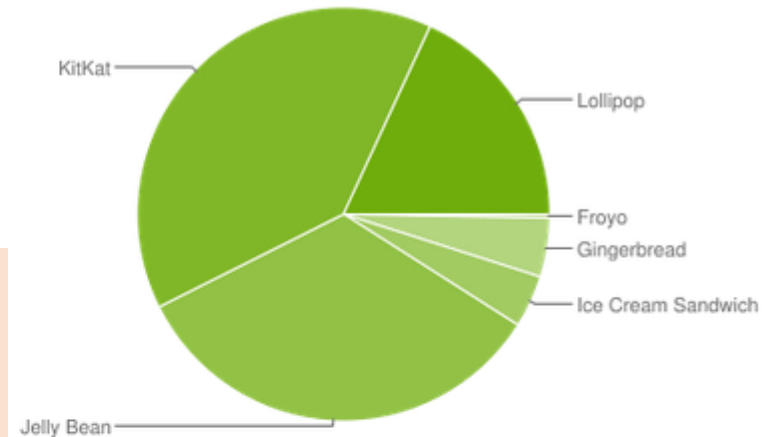
CPU

ROM Size

SDCard Support

# Fragmentation: Software

Version	Codename	API	Distribution
2.2	Froyo	8	0.3%
2.3.3 - 2.3.7	Gingerbread	10	4.6%
4.0.3 - 4.0.4	Ice Cream Sandwich	15	4.1%
4.1.x	Jelly Bean	16	13.0%
4.2.x		17	15.9%
4.3		18	4.7%
4.4	KitKat	19	39.3%
5.0	Lollipop	21	15.5%
5.1		22	2.6%



*Data collected during a 7-day period ending on August 3, 2015.*

*Any versions with less than 0.1% distribution are not shown.*

## 2) Don't know Android App Design principle





### 3) CPU Utilization Weakness

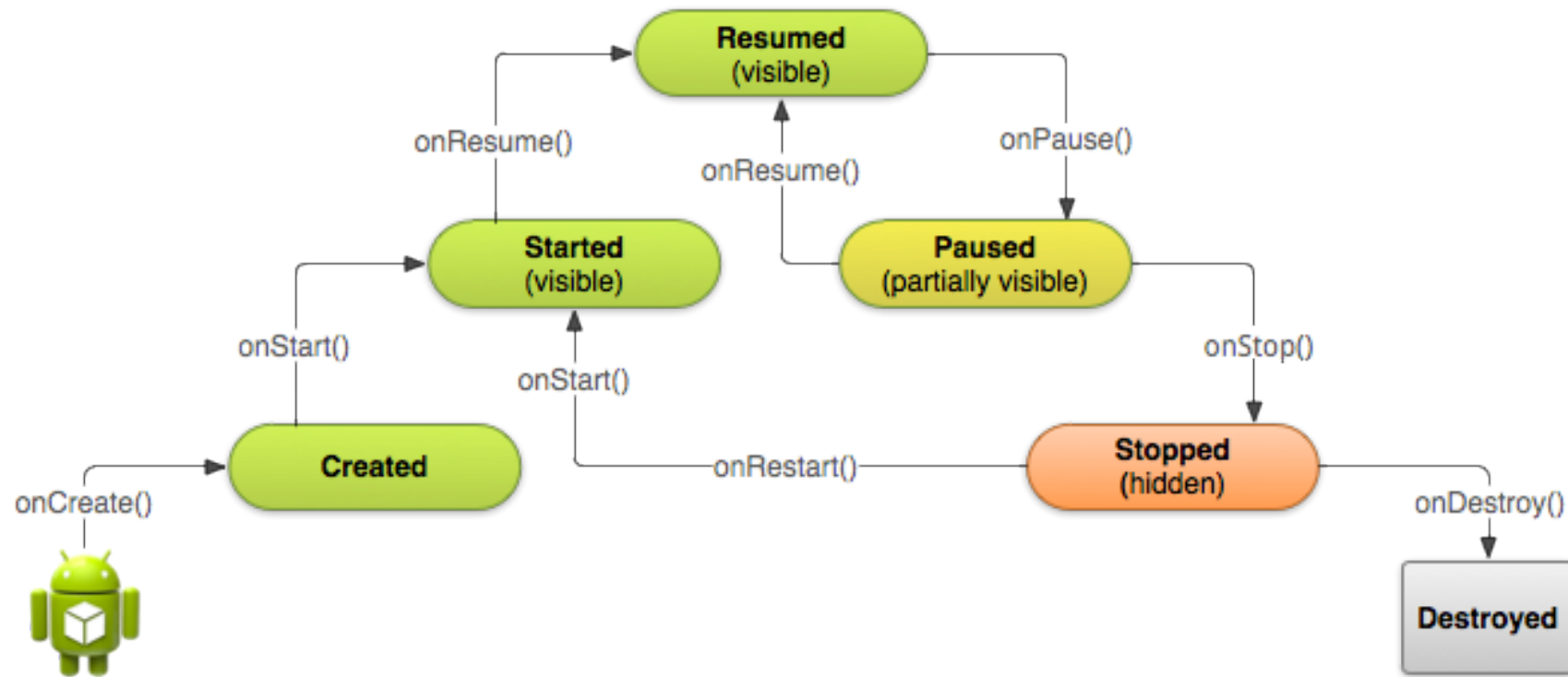




# 4) Memory Management Weakness: OutOfMemory

Log				
Time		pid	tag	Message
11-10 12:41:11.773	I	2732	dalvikvm	at java.io.ByteArrayOutputStream.expand(ByteArrayOutputStream.java:~93)
11-10 12:41:11.773	I	2732	dalvikvm	at java.io.ByteArrayOutputStream.write(ByteArrayOutputStream.java:218)
11-10 12:41:11.778	I	2732	dalvikvm	at com.paradigmcreatives.youid.ActivateCamera.streamToBytes(ActivateCamera.java:242)
11-10 12:41:11.778	I	2732	dalvikvm	at com.paradigmcreatives.youid.ActivateCamera.access\$1(ActivateCamera.java:236)
11-10 12:41:11.778	I	2732	dalvikvm	at com.paradigmcreatives.youid.ActivateCamera\$3.onPictureTaken(ActivateCamera.java:175)
11-10 12:41:11.778	I	2732	dalvikvm	at android.hardware.Camera\$EventHandler.handleMessage(Camera.java:377)
11-10 12:41:11.778	I	2732	dalvikvm	at android.os.Handler.dispatchMessage(Handler.java:99)
11-10 12:41:11.783	I	2732	dalvikvm	at android.os.Looper.loop(Looper.java:123)
11-10 12:41:11.783	I	2732	dalvikvm	at android.app.ActivityThread.main(ActivityThread.java:4367)
11-10 12:41:11.783	I	2732	dalvikvm	at java.lang.reflect.Method.invokeNative(Native Method)
11-10 12:41:11.783	I	2732	dalvikvm	at java.lang.reflect.Method.invoke(Method.java:521)
11-10 12:41:11.783	I	2732	dalvikvm	at com.android.internal.os.ZygoteInit\$MethodAndArgsCaller.run(ZygoteInit.java:860)
11-10 12:41:11.783	I	2732	dalvikvm	at com.android.internal.os.ZygoteInit.main(ZygoteInit.java:618)
11-10 12:41:11.783	I	2732	dalvikvm	at dalvik.system.NativeStart.main(Native Method)
11-10 12:41:11.793	D	2732	AndroidRuntime	Shutting down VM
11-10 12:41:11.793	W	2732	dalvikvm	threadid=3: thread exiting with uncaught exception (group=0x4001b180)
11-10 12:41:11.798	E	2732	AndroidRuntime	Uncaught handler: thread main exiting due to uncaught exception
11-10 12:41:11.803	E	2732	AndroidRuntime	java.lang.OutOfMemoryError
11-10 12:41:11.803	E	2732	AndroidRuntime	at java.io.ByteArrayOutputStream.expand(ByteArrayOutputStream.java:93)
11-10 12:41:11.803	E	2732	AndroidRuntime	at java.io.ByteArrayOutputStream.write(ByteArrayOutputStream.java:218)
11-10 12:41:11.803	E	2732	AndroidRuntime	at com.paradigmcreatives.youid.ActivateCamera.streamToBytes(ActivateCamera.java:242)
11-10 12:41:11.803	E	2732	AndroidRuntime	at com.paradigmcreatives.youid.ActivateCamera.access\$1(ActivateCamera.java:236)
11-10 12:41:11.803	E	2732	AndroidRuntime	at com.paradigmcreatives.youid.ActivateCamera\$3.onPictureTaken(ActivateCamera.java:175)
11-10 12:41:11.803	E	2732	AndroidRuntime	at android.hardware.Camera\$EventHandler.handleMessage(Camera.java:377)
11-10 12:41:11.803	E	2732	AndroidRuntime	at android.os.Handler.dispatchMessage(Handler.java:99)
11-10 12:41:11.803	E	2732	AndroidRuntime	at android.os.Looper.loop(Looper.java:123)
11-10 12:41:11.803	E	2732	AndroidRuntime	at android.app.ActivityThread.main(ActivityThread.java:4367)
11-10 12:41:11.803	E	2732	AndroidRuntime	at java.lang.reflect.Method.invokeNative(Native Method)
11-10 12:41:11.803	E	2732	AndroidRuntime	at java.lang.reflect.Method.invoke(Method.java:521)
11-10 12:41:11.803	E	2732	AndroidRuntime	at com.android.internal.os.ZygoteInit\$MethodAndArgsCaller.run(ZygoteInit.java:860)
11-10 12:41:11.803	E	2732	AndroidRuntime	at com.android.internal.os.ZygoteInit.main(ZygoteInit.java:618)
11-10 12:41:11.803	E	2732	AndroidRuntime	at dalvik.system.NativeStart.main(Native Method)
11-10 12:41:11.823	I	1904	Process	Sending signal. PID: 2732 SIG: 3

## 5) Don't understand the Lifecycle



## 6) Didn't handle Exception and case of Failure

Facebook  
Login



Optus 10:27 pm 61%

facebook

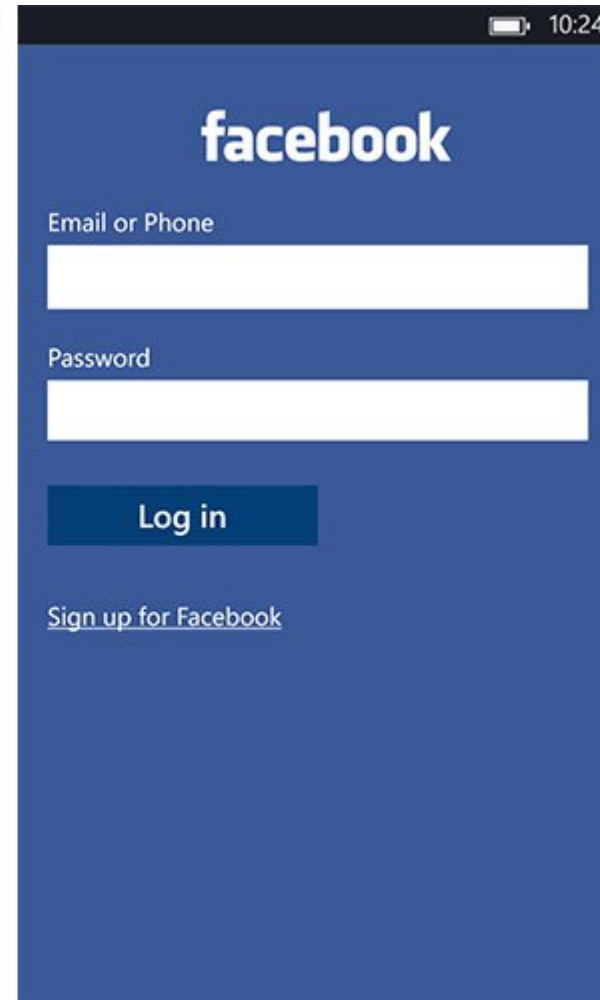
Email or phone number

Password

Log In

Sign Up for Facebook

Help Center



facebook

Email or Phone

Password

Log in

[Sign up for Facebook](#)



## 7) Don't pay attention to UX



**Common UX Issues**



## 8) Hire Programmer to do UI Design ...

