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# Android App Development!

-Dimpy Chhabra

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## Lil bout me, huh?

- ★ Junior Year @IGDTU || Department of IT
- ★ I've worked on the following technologies:  
Android App Dev, Server setup and management,  
software designing and building, IoT, tab bit of  
Machine Learning and Data Science.
- ★ Based on a project, my team stood **6th** all over  
India at the *Intel Higher Education Challenge*.
- ★ And this summer I'll be joining **Expedia** as an intern.
- ★ Fork Me: [github.com/dimpy-chhabra/Android\\_ACM](https://github.com/dimpy-chhabra/Android_ACM)



# Today's Agenda:

- **Understand Android**  
What, why & how?
- **Check out Android Developer Studio**  
Get your hands a lil dirty..
- **Build a pretty interface**  
Front End Stuff.
- **Back-End**  
Let's get appy.
- **Build an APP!**  
Shall we?

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# How many things do you have to learn **to actually** **have your own** **product?**



Web  
Development in  
Php || Python ||  
Ruby || Java  
OMG!!!!

# Just one! Android.

(Phew..!

So, one thing would do?)



**Evolving, I  
heard?**

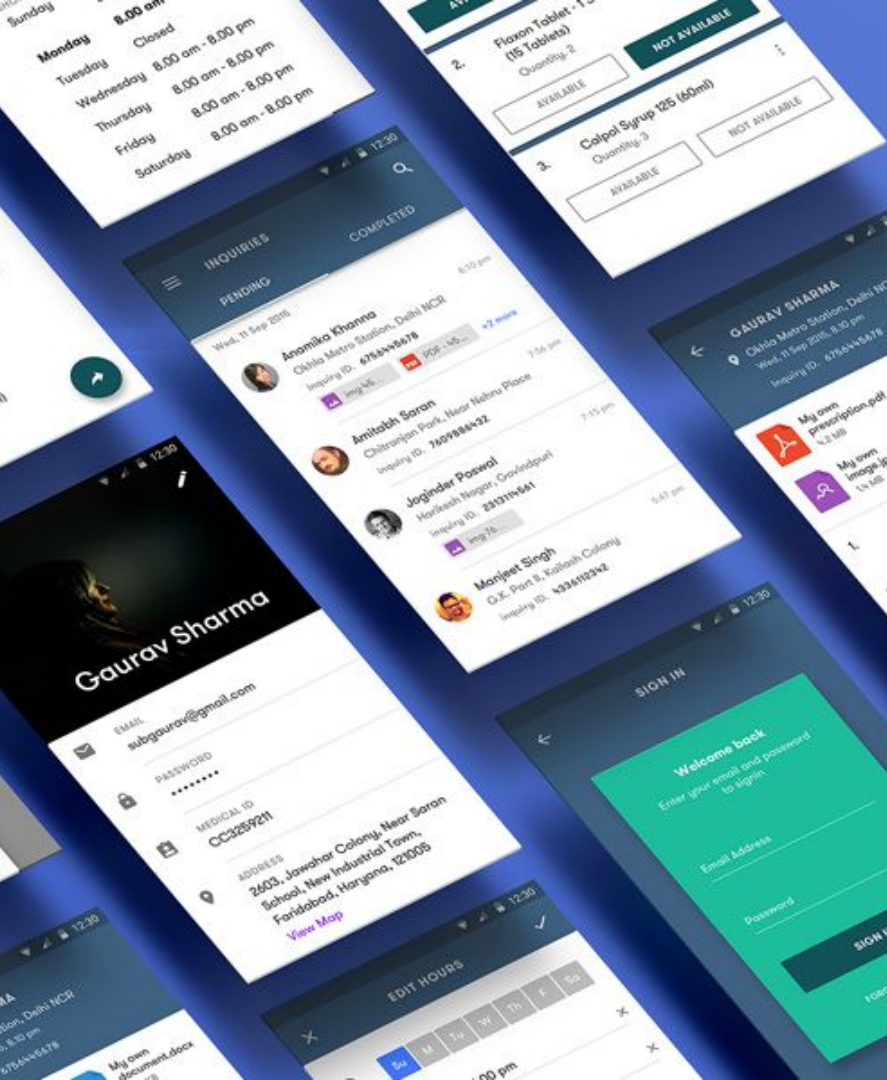
[www.android.com/history](http://www.android.com/history)

[Types](#)

Today Android based  
smart devices have over  
**TWO BILLION**  
Global Users.



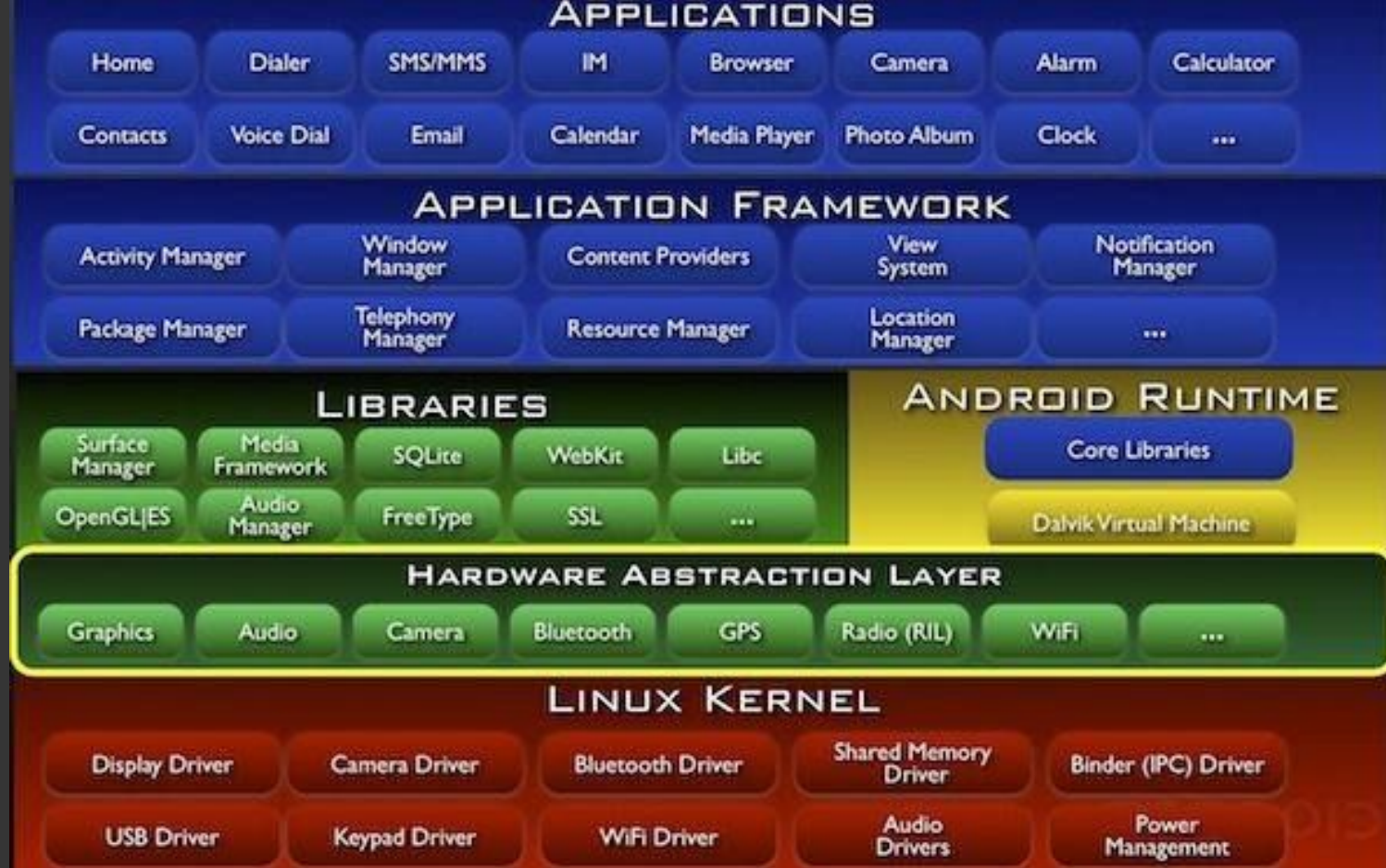




# Why is it so successful?

- ★ Open Source (Linux Based)
- ★ Highly Customizable
- ★ Available free of cost to device
- ★ Manufacturers
- ★ It's oh-so-pretty
- ★ Hardware Diversity
- ★ Strong Developer Community
- ★ The Google Ethos!

[androidauthority.com/five-reasons-android-killing-apple-234364/](https://androidauthority.com/five-reasons-android-killing-apple-234364/)



# Android Architecture



torvalds / linux

Watch

6,045

★ Star

54,223

🔗 Fork

20,028

<> Code

Pull requests 190

Projects 0

Insights

## Linux kernel source tree

724,083 commits

1 branch

542 releases

∞ contributors

GPL-2.0

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download



torvalds Linux 4.15-rc8

Latest commit a875edd 20 hours ago

Documentation	Merge branch 'x86-pti-for-linux' of git://git.kernel.org/pub/scm/linu...	a day ago
arch	Merge branch 'x86-pti-for-linux' of git://git.kernel.org/pub/scm/linu...	20 hours ago
block	block: drain queue before waiting for q_usage_counter becoming zero	10 days ago
certs	License cleanup: add SPDX GPL-2.0 license identifier to files with no	2 months ago

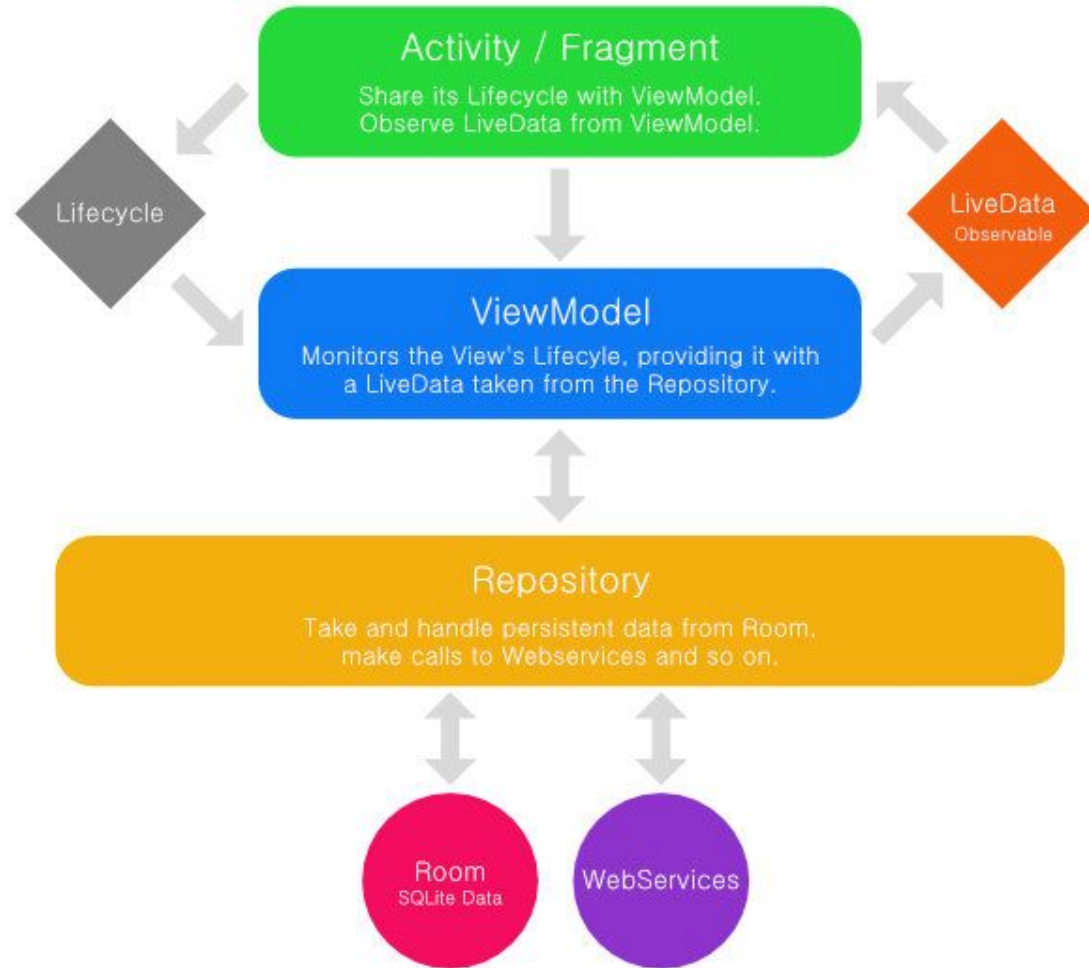
# Linux Kernel (Minimal Operating System)

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**[source.android.com/devices/archit  
ecture/](https://source.android.com/devices/architecture/)**

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# This is what we are gonna work on...





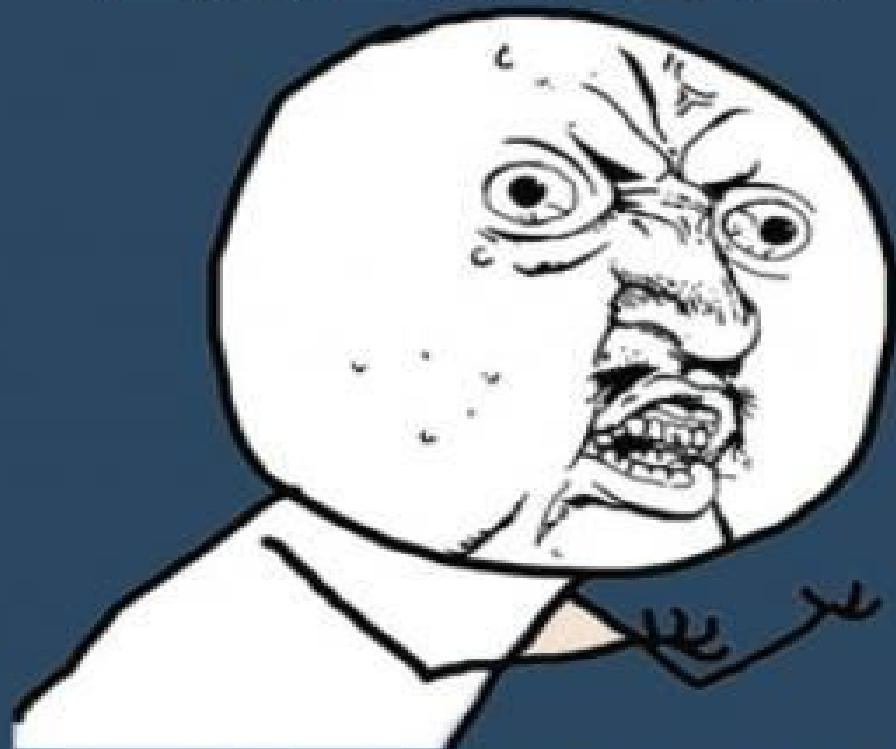
## 2. How?

Android Apps can be built in Eclipse or Android Developer Studio.

→ **Eclipse**  
Discontinued.

But why??

**ECLIPSE**



**Y U NO WORK?**





## 2. How?

Android Apps can be built in Eclipse or  
Android Developer Studio.

→ **Developer Studio**

We got gradle here!

**GRADLE IS YOUR FRIEND**





Meet Android Developer **Studio 2.3.2**



**Android**  
Studio

Shall we..?

Nothing to do here!



**NOTHING TO  
DO HERE**

**LET'S GO CODE SOME STUFF**



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# YAY! YOU BUILT YOUR FIRST APP!

Take a minute to realize that you can now, BUILD  
AN APP.  
ikr.



# DATA!

So now we know what a backend is?  
Good.

Now, how?

→ **Getchya own Server**

These days you get many webserver  
for free to host your database on.

**FREE HOSTING**

**FREE HOSTING EVERYWHERE**



**Some free hosting  
websites:**

Hostinger.com

in.000webhost.com



{JSON}  
JavaScript Object Notation

php



Android Volley Library





# DATA!

So now we know what a backend is?  
Good.

Now, how?



## Go FIREBASE

Firebase is a web and mobile application development platform. It'll take care of all the complicated stuff.



Ex.  
Authenticating The user  
Getting Real-time Data etc.



**FIREBASE**



**SO HOT RIGHT  
NOW**

**NOW**

**LET'S CODE!**

# Milestones from today's session.

## Android

Basics: What, how, why?

## Backend

Studied Backend Options

## Frontend

Developed a basic Android App

## Firebase

Introduction to Firebase

# Other Android Platforms

## **Android Things.**

Deploying Internet  
of Things with  
Android

## **ARCore**

Develop Android  
Apps with  
Augmented  
Reality

## **Android Wear**

Build Applications  
for Android  
Watch.

**Android  
TV/Auto...**



This session was conducted  
by ACM-Student Chapter  
IGDTUW community.





# Good luck!

That was quite a thrill.

Hope you learnt something new today and enjoyed the session.

Looking forward to see you again!

## **My Details:**

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