





# **MOBILE DEVELOPMENT EXPLAINED**

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**DO YOU KNOW WHAT I  
WILL TEACH YOU?**

# I WILL TEACH YOU

## Mobile Development

1. Thinking
2. Planning
3. Applying



# BEFORE ANYTHING

- **You Should Know:**

- **Patience, Passion & Motivation** Is The Key To Success In The Computer Development World
- **No Need** For Higher Education
- It Will Be A **Long Journey That Doesn't End**
- You Can **Teach Yourself** Everything From A To Z
- Technology Is Changing Every Second, **Keep Yourself Updated** Tech Subjects (Flipboard.com)



# PATIENCE, PASSION & MOTIVATION

- **Patient, Passionate & Motivated Means Successful:**

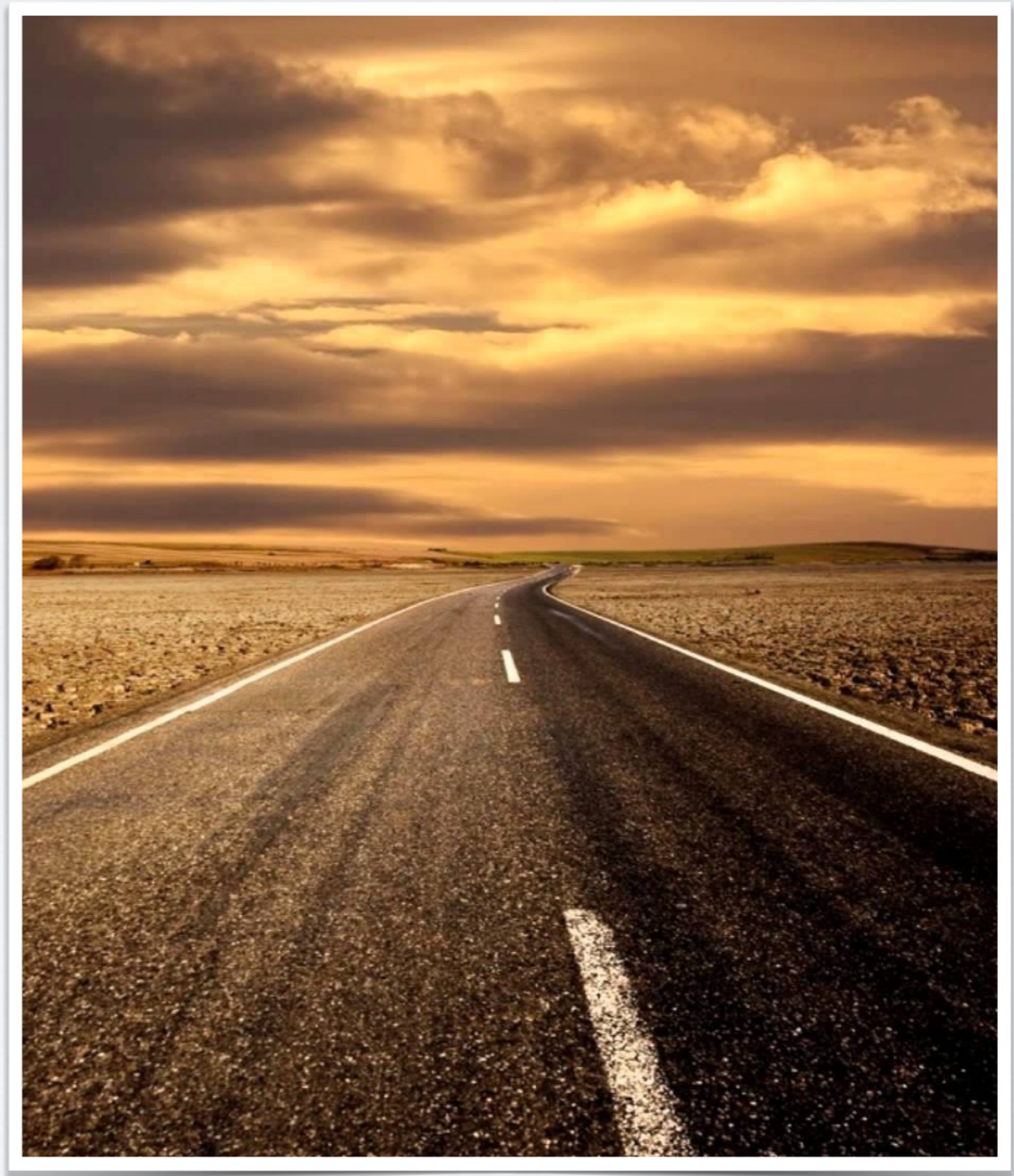
- To **Learn**
- To **Understand**
- To **Remember**
- To **Apply**





# LONG JOURNEY

- **Every Day** A New Tech Pop Up In The Technology World
- **Learn** The History Of Tech
- **Understand** Nowadays Tech
- **Think** For The Future Tech
- Remember: **EveryDay, Learn, Understand, Think**





# KEEP YOURSELF UPDATED

- **Flipboard.com** Magazines

Source:

- **Follow The Topics & People You Care About**
- **One Of The Topic I Follow Is Machine Learning & Artificial Intelligence**
- Available In iOS/Android



# TEACH YOURSELF

- Paid/Free **Courses:**
  - **Udemy, Coursera...**
  - **MIT OpenCourseWare**
- **Youtube** Tutorials  
(**thenewboston Channel**)
- Tutorial **Websites**  
  
(<https://www.appcoda.com/>)  
  
(<https://www.simplifiedcoding.net>)



**WHY LEARN IT?**

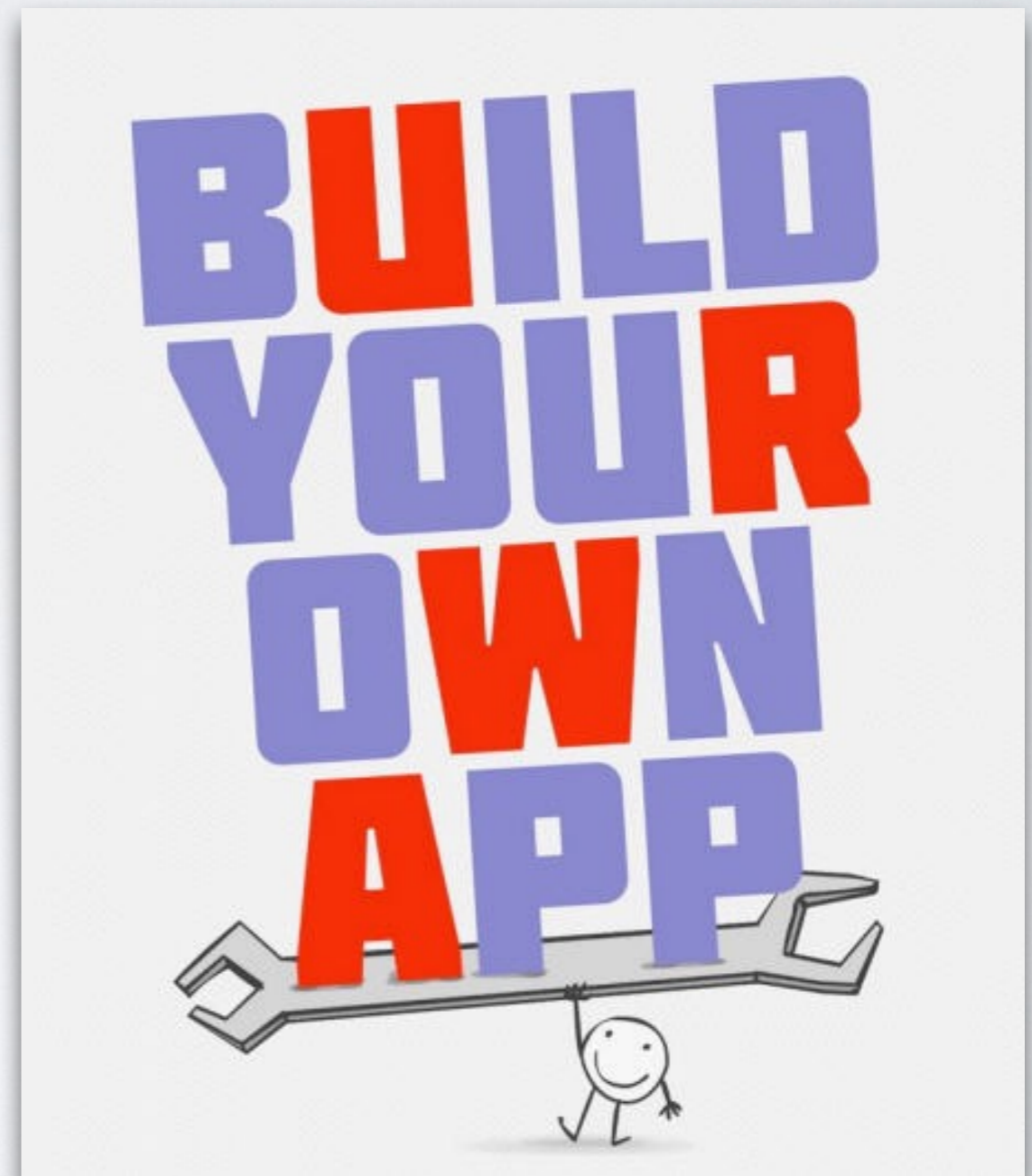
# WHY LEARN IT?

- **Variety Of Jobs:**
  - **Own Apps**
  - **Freelancer**
  - **Company Job**
  - **Own Company**
- **Income** By **Ads** Made Easy
- **Startups That Made It Big:**
  - **Facebook (Dorm Room)**
  - **Snapchat (Group Of Friends)**
  - **Dropbox (File Sharing Vision)**



# OWN APPS

- Develop Your Own Apps  
(**Own Ideas**)
- Work From Home  
(**Time** To Work Is **Not Fixed**)
- **Infinite Income** In  
**Successful Ideas**



# OWN APPS INCOME

- **Google AdMob (Most Famous):**
  - **Implement** Banners , Pop Ups Or Video Ads In Your **Mobile Apps**
  - **You Get 68% Revenue**
- **Third Party :**
  - **AdColony**
  - **AppLovin**
- **Sponsors:**
  - Your **Own Ad System**
  - **You Get 100% Revenue**
- **You Can Sell Your App (Once Your App Made It Big)**



# FREELANCER

- **e.g [www.freelancer.com](http://www.freelancer.com)**  
and many other freelancing websites.
- **Develop Others Ideas:**
  - Helps **Get Inspired**
- **Time:** Less Is Better
- **Cost:** Depends On Time
- **Knowledge:** More Makes You Competitive



# FREELANCER INCOME

- **\$/day or \$/hr**
- **Competition** Is In Time, Website Rank & Cost
- **Less Time, Less Cost & High Rank** Makes You A **Number One Freelancer**





# COMPANY JOB

- **Team Work** And Cooperation
- **2 Types:**
  1. Work On A **Whole Project** Yourself
  2. Work On **Parts Of A Big Project** or Multiple Parts
- **Part Timer or Full Timer**



# COMPANY JOB INCOME

- **Mobile Software Engineer Average Salary:** (might change)
  - \$42,117 - \$107,932 /Year
- **Secured Income**



# OWN COMPANY

- **Highest Level Job** In Mobile Development
  - **Own Apps + Customers Apps**
- Needs **A Lot Of Work** And **Knowledge**
  - To **Help Your Team** Become Better And Deliver Successful Apps
- Needs A **Good Reputation**
  - **Company's Reputation** Is Its Key To **Success**



# OWN COMPANY INCOME

- **Own Apps Income + Customers Apps Income**
- **Unsecured Income At First Then Becomes More & More Secured**  
(Reputation Wise)



# PREREQUISITES

- **Developer Computer Environment**
- Become An **Expert In Searching** The Web
- Minimum **Web Knowledge Required**
- About **Android/iOS Development**
  - **Android** Versions
  - **iOS** Versions
- Mobile **Development Types**
  - **Native & Cross**
- Mobile **Developer Categories**
  - **Front-End, Back-End & Full-Stack**



# COMPUTER ENVIRONMENT

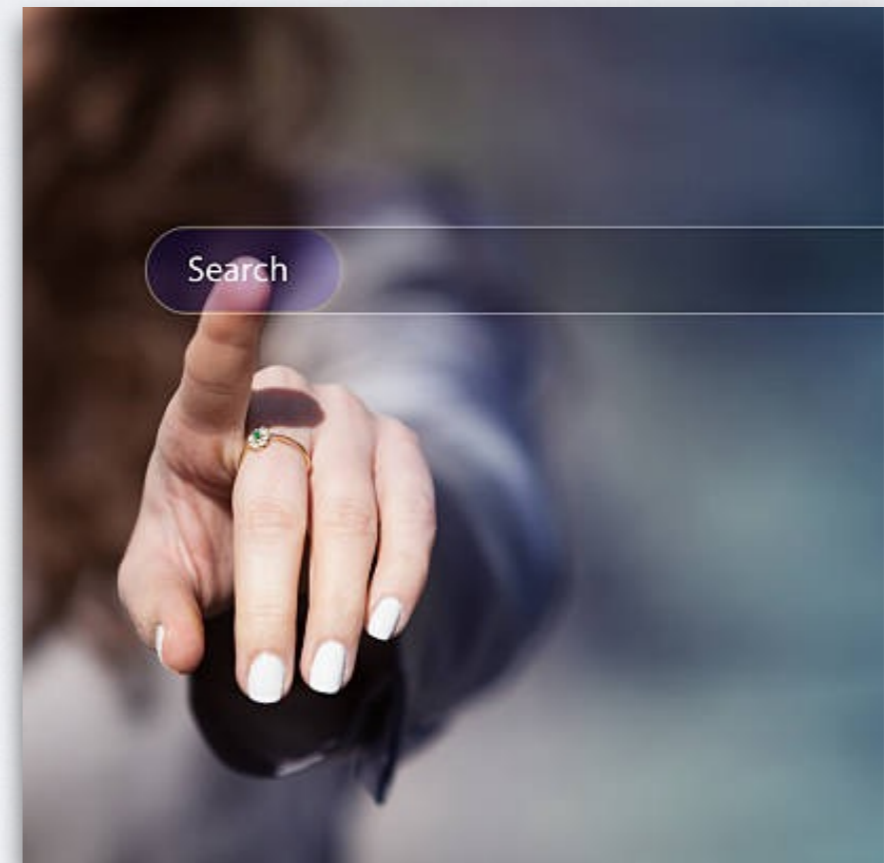
- When You **Buy: Select The Highest Specs** (Think Further)
- **Win/Linux:**
  - **Needs VM To Run Xcode**
  - **Android Studio Supported**
- **Mac OS:**
  - **Xcode Supported**
  - **Android Studio Supported**
- **My Env:**
  - **MacBook Air w/ Arm Chip”**
  - **NoSleep/Clamshell**
  - **External Monitor , Keyboard & Mouse**  
(Mac & PC)



**DO YOU FIND WHAT  
YOU WANT ONLINE  
EASILY?**

# SEARCHING IS A MUST

- **You Must Enhance Your English & Understand Google Search Techniques**
- **Searching Needs Patience So Be Patient While Searching & Finding The Right Result...**
- To Start Learning You Will Need To **Search & Search & Search...**
  - Search For New, Latest, Trending Ideas To **Get Inspired** (Google Trends & Most Searched Keywords WorldWide)
  - Search For **Tutorials Online** (Google.com/Youtube.com)
  - Search For **Answers, Errors & Fixes** On Forums Websites ([StackOverflow.com](https://stackoverflow.com))









ReactNative



Xamarin



Flutter



**VS**



Android



iOS



# DEVELOPMENT: NATIVE

- **Android Studio**
  - **By Google**
  - **Java & Kotlin** for Coding
  - **XML for Design**
  - **Highly Documented**
- **Xcode**
  - **By Apple**
  - **Swift & Objective-C** for Coding
  - **XML for Design**
  - **Highly Documented**
- **e.g. Pokemon GO is a fully native app.**

**NATIVE**



# DEVELOPMENT: NATIVE CONT'D

- **Scaling** (Apple & Google) for the **newest** devices and **technologies** (e.g SmartWatch And tvOS)
- **Native elements** for Android & iOS are completely **different**.
- Native applications **make the most of** all the possibilities afforded by the **hardware**.
- Native applications usually have **greater visibility at app stores** and often get **better user ratings and recommendations**.

**NATIVE**



# DEVELOPMENT: HYBRID

- **Notepad Or Higher**
- **HTML , CSS for Design & Javascript for Coding**
- **Different Frameworks:**
  - **iOnic**
  - **PhoneGap**
  - **Titanium**
  - **e.g. TripCase (Travel App) is fully Hybrid**



# DEVELOPMENT: HYBRID CONT'D

- **Scaling** is **Low** (Maintained Mainly By Small Startups)
- **App Elements** Are **Common For All Platforms**
- **Testing** Is Very **Slow** (**CMD/Terminal**)
- **One Project** For **All Platforms**



# DEVELOPMENT: CROSS PLATFORM

- **Flutter**

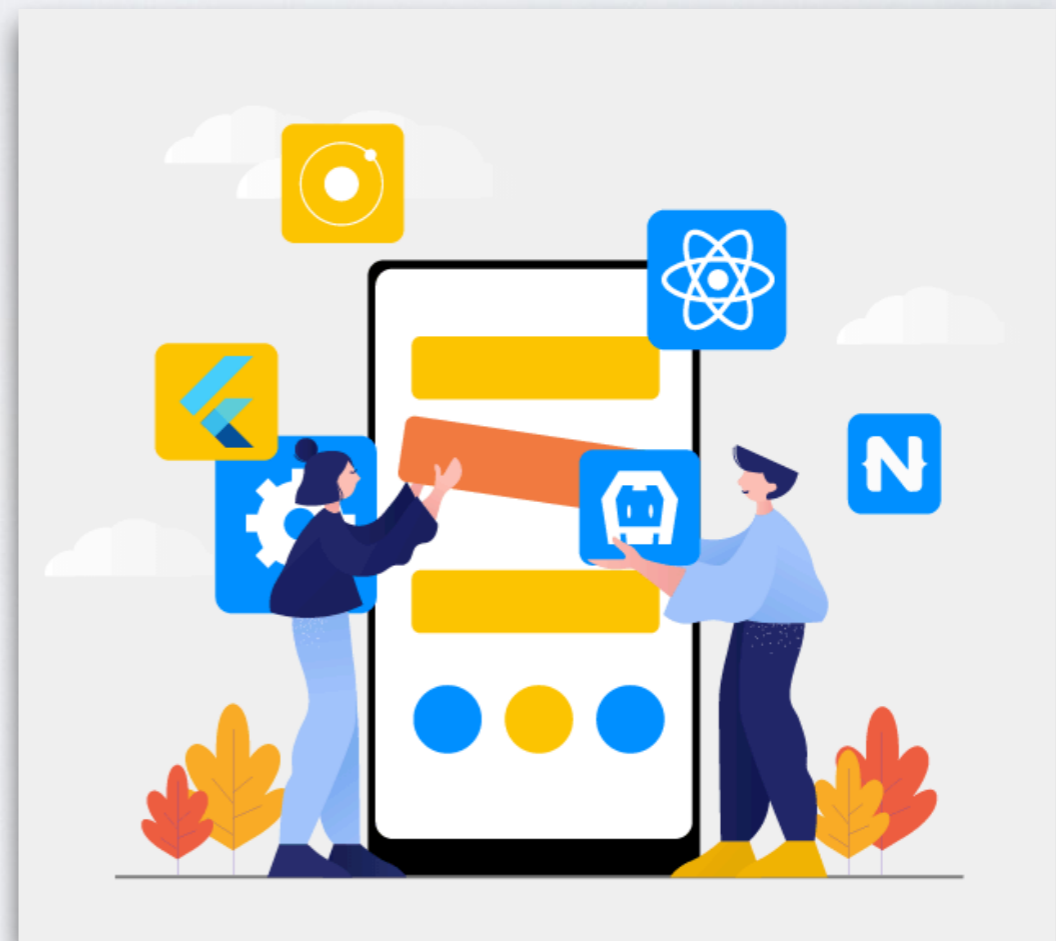
- **By Google**
- **Dart** for Coding
- **Highly Documented**

- **React Native**

- **By Meta (formerly Facebook)**
- **Javascript** for Coding
- **Highly Documented**

- **Xamarin**

- **By Microsoft**
- **C# For Coding**
- **Highly Documented**



# WHAT DID I LEARN FIRST?

## I. Native:

### A. Android (Java & XML)

- Introduction To Android Course (BAU)
- Online Tutorials

### B. iOS (Swift & XML)

- Online Tutorials

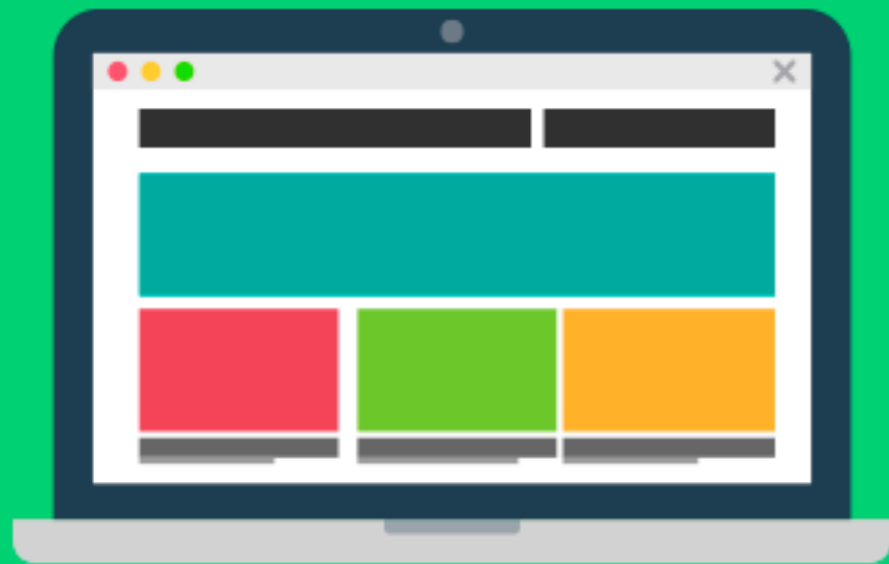
## 2. Hybrid

### C. iOnic (HTML5, CSS3, TypeScript)

- Online Tutorials







**FRONTEND**



**BACKEND**

# DEVELOPER: BACK-END

- **Not Seen By The User**
- **Server** (Hosting/ Localhost),
- **Application** (ServerSide Scripts & App Code)
- **Database** (App Brain)



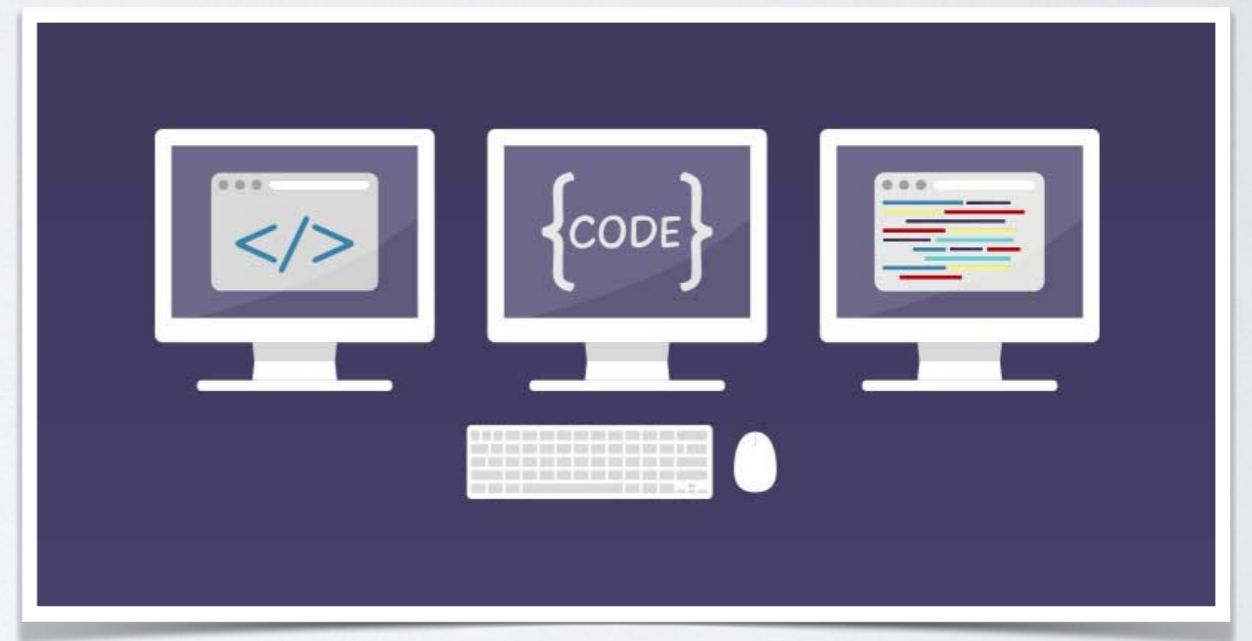
# DEVELOPER: FRONT-END

- **User Interact With The Front-End**
- **Design** (Photoshop & IDE User Interface)
- **Implementation** (Convert Photoshop Elements to Android/iOS Elements In IDE Interface Builder)



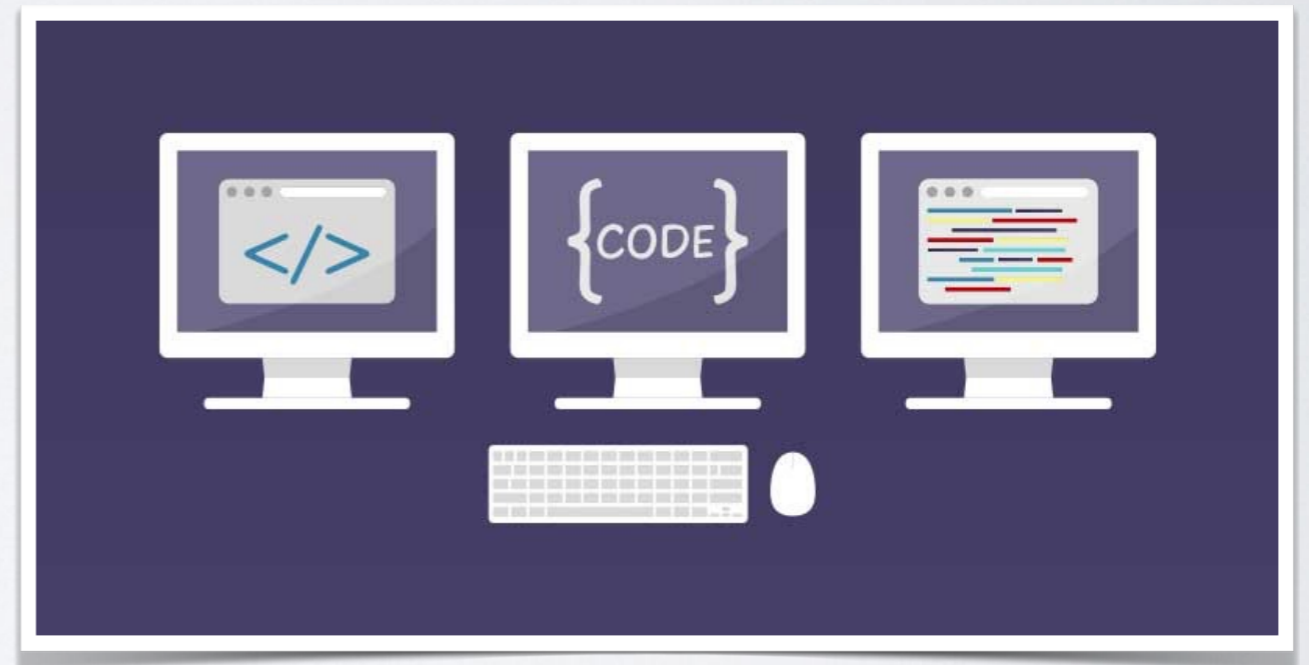
# DEVELOPER: FULL-STACK

- is a **Back-End & Front-End Developer**
- Respects **Mobile Development Architecture & LifeCycle**



# WHAT DEVELOPER TYPE DO I NEED TO BECOME?

- **Full-Stack:**
  - **Will Not Need Help From Anyone**
- **Back-End:**
  - **You Will Need A Designer For Your App**
- **Front-End:**
  - **You Will Need A Programmer To Code Your App**
- NB: I Am A Full-Stack Developer



# TO PUT IN MIND: STRATEGY TO BE #1

- **New** Ideas Have **Better Chances** Than Mimicked Ideas (e.g. MakeMeRichApp)
- Make **Your App Hard To Mimic:** Stays **Unique** In The Stores (Design & Features Wise)
- **Marketing Plan** Is **Highly Recommended** For Faster Growth (Advertising About Your App)
- Way To **Scale Your App Big**



# TO PUT IN MIND: INCOME

- **Income Types:**
  - **Non-Profit Apps**  
(Donations e.g. Offline Apps)
  - **Profit Apps** (Ads & Sponsors e.g. Facebook)
  - **Profit After Growth**  
(Online e.g. WhatsApp Sold:  
3 Billion Dollars To  
Facebook)







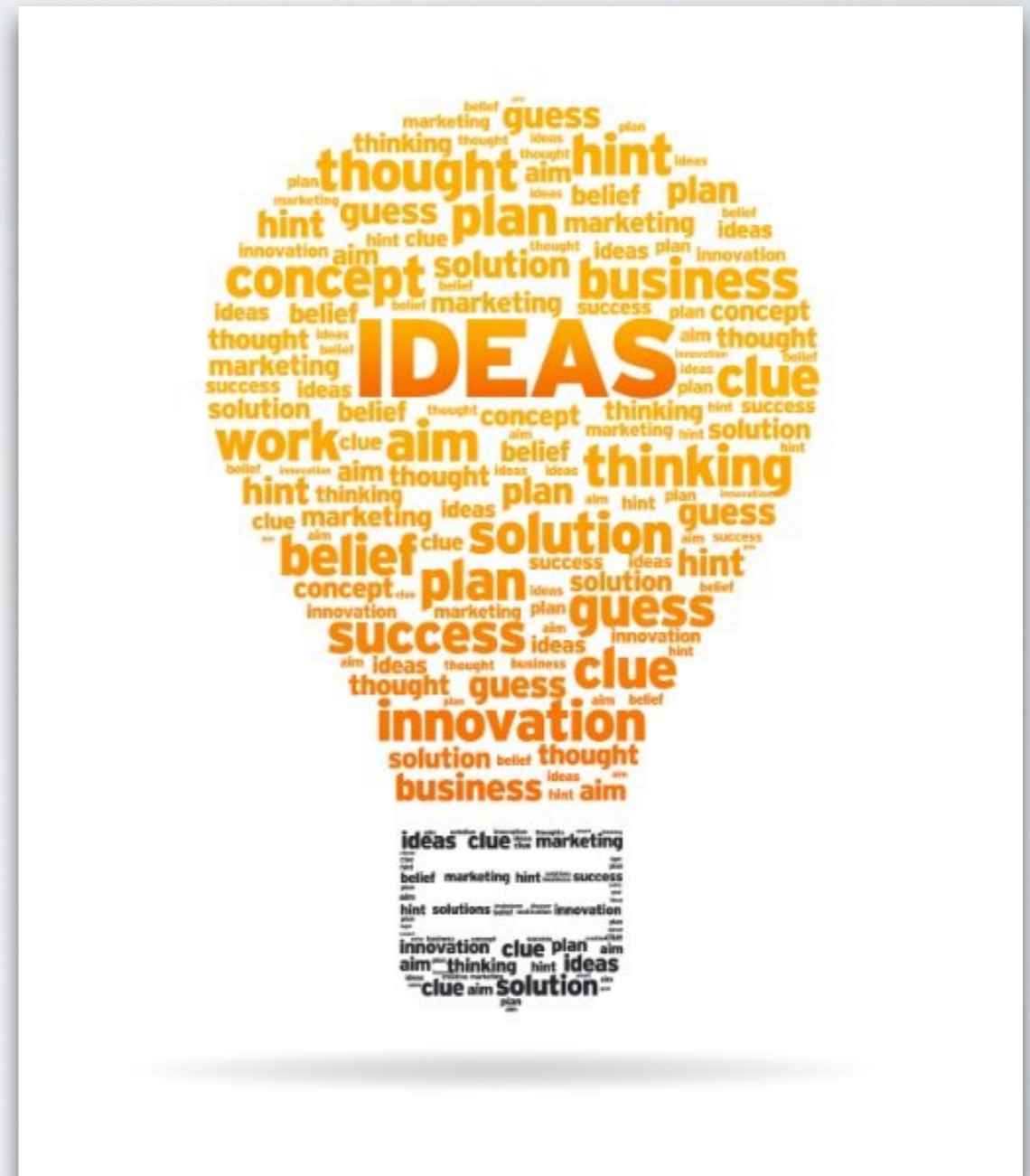
# TO PUT IN MIND: HOW TO FIND THE IDEA?

- **Type Of App Data:**

- **App Data Based** (Based On A **Static Database** e.g. All Streets Of A Country)
- **User Data Based** (Based On **Dynamic Database** e.g. User Posts Or News Of A Country)

- **Type Of App Ideas:**

- **New e.g. MakeMeRich App**
  - No Mimicking, Develop From Scratch
- **Repeated e.g. Line VoIP & Video Calls**
  - Mimicked With Better Service
- **Simple e.g. Calculator**
  - Might Mimic Or Might Invent New Features



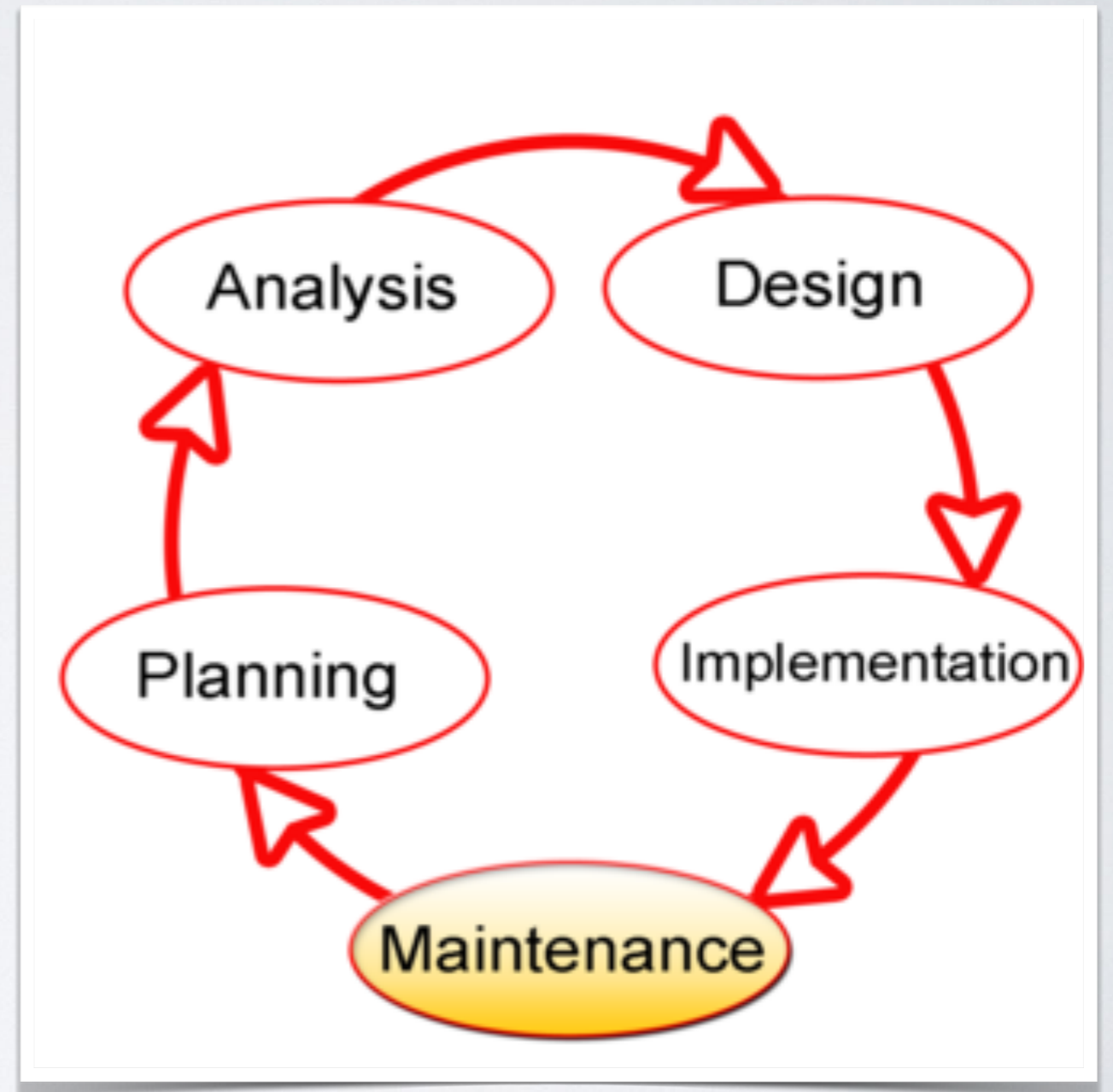
# TO PUT IN MIND: MONEY NEEDED

- **Developer Accounts:**
  - **PlayStore** (Might Change)
    - **Pay 25\$/Life**
    - **Pay More To Get Recommended**
  - **AppStore** (Might Change)
    - **Pay 8.9\$/mo**
    - **Pay More To Get Recommended**



# TO PUT IN MIND: SOFTWARE DEVELOPMENT LIFECYCLE

- 1. Planning**
- 2. Analysis**
- 3. Design**
- 4. Implementation**
- 5. Maintenance**



**QUESTIONS?**

# YOU LEARNED TODAY

1. Must Be **Patient, Passionate & Motivated**
2. **No Higher Education** Required
3. Have A **Long Journey Ahead**
4. Keep Yourself **Updated**
5. You Can **Teach Yourself**
6. Become A Master In **Online Searching Techniques**
7. Some **Web Development Knowledge** Is Needed
8. **Full-Stack Developer Is Your Target** If You Want To Build A Full App Yourself
9. **The Development LifeCycle** Is Needed For Each App You Will Create

# ALWAYS REMEMBER

**Mobile Software Engineer** Will Always Be

1. **Thinking**
2. **Planning**
3. **Applying**

