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Mobile App Development, Human Resource -Marketing a Study with Special Reference with Apple's WWDC

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Abstract: Mobile app development is a software development process where technical persons are making or developing applications specific to the Mobile devices for different platform like Android or iOS. There are many people are involved in the app development including independent developers, working in a companies who are into software development and app development and technical person who are working in companies like Google and Apple for the same. There are free and paid apps, some free apps can be used free for a trial period after that the user has to purchase. As the need and demand of apps are increasing and people are working on it on a large scale but not every apps is enjoying in millions of download from app store. In this research article the author is going to focus on the process of app development, iOS apps, discussing about annual event by Apple's WWDC for apple developers and its future aspects in the app development process.

Keywords: Apple's WWDC, app development process, Android or iOS, free and paid apps.

I. INTRODUCTION

As the need and demand of Mobile apps are increasing and people are working on it on a large scale but not every apps is enjoying in millions of download from app store. There are majorly two apps free and paid, in free apps there are some which are free to use and has advertisement some free apps lose their full functional interface after the end of trail period.

While developing mobile apps, there are some vital constraints and features of mobile devices needs to be considered like, processing power, battery, location detection, screen size, graphics for gaming purpose etc. and hardware specifications also needs consideration.

Mobile user interface Design is another essential part in application development process it has to be user friendly with easy navigation with eye catching colors and easily readable font, fonts those are universally available on almost all devices. Mobile user interface act as front-end for the mobile app which directly interacts with user and it rely on back-end support system for proper functioning and customer experience. The back-end includes database, routing, security and authorization on real time basis.

In further sections of the article the author is going to talk over app development process, the need for app development and the recruitment of tech developers and the annual apple event WWDC.

II. MOBILE APPS AND APP DEVELOPMENT

Mobile apps are the software used in mobile device for making ease the user experience there are millions of apps available on online stores like Google's Play store and Apple's iTunes, at Google's Play Store there are mainly apps used for Android mobile devices and at iTunes the apps available for the Apple devices like iPhone etc.

There is a big market for these apps and day by day these apps are increasing and capturing their place on the online stores. Some of the apps are free to use and some are free to use for a period of time and some are paid apps, these apps run on the specific platforms some are working on both android and iOS platform.

III. APPS ON GOOGLE PLAY STORE

There are millions of apps available on the Google's Play store, the play store was launched in 2008 since then there are variety of apps available for Mobile and other devices.

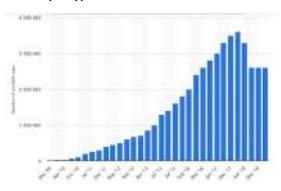


Fig. 1. Showing the number of apps on Google Play Store over the period of 2008 – [mar] 2019.

Source: https://www.statista.com/statistics/266210/number-of-available-applications-in-the-google-play-store/

This statistic shows the number of available applications in the Google Play Store from December 2009 to March 2019. The number of available apps in the Google Play Store was most recently placed at **2.6 million** apps, after surpassing 1 million apps in July 2013. Google Play was originally launched in October 2008 under the name Android Market. As Google's official app store it offers its customers a range

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applications and digital media including music, magazines, books, film and TV. [1.]





Fig. 2. Showing various apps at Google Play Store, Source: https://play.google.com/store/apps/top?hl=en

The following list is showing the best application for android mobile devices, till **May 2019**. Most of them are downloaded by users for utility, gaming, news, sports, money matter, movies or social media usages.

The best **Android** apps (May 2019)

- Spark Email
- Scribbl
- Rise
- Download Navi
- Battery Notch
- Netflix
- Hulu
- YouTube
- HBO Now/HBO GO
- Spotify
- Soundcloud
- Bandcamp
- Google Play Music
- NYTimes
- Vice News
- NPR News
- The Washington Post
- Flipboard
- Nwsty
- theScore
- ESPN
- CBS Sports
- Yahoo! Fantasy Sports
- Instagram
- Facebook
- Twitter

- Pinterest
- Skype
- Messenger
- WhatsApp
- Snapchat
- Messenger Kids
- Tinder
- OKCupid
- Coffee Meets Bagel
- Happn
- Kindle
- Comics
- Perfect Viewer
- Medium
- Tumblr
- WordPress
- Blogger
- Steam
- PlayStation App
- Xbox
- Twitch.tv
- Upcomer eSports
- Zomato
- MyFitnessPal Calorie Tracker
- Yummly
- Food Network
- Simple Macro
- Runtastic
- Strava Running and Cycling GPS
- Daily Yoga
- RunKeeper
- Headspace
- Duolingo
- Fabulous motivate me!
- Mint
- Acorns
- Venmo
- Square Cash
- Google Pay
- Depop
- eBay
- Amazon Prime Now
- PayPal
- Google Maps
- Uber
- Lyft
- Airbnb
- Google Translate
- Yelp
- StubHub
- Fandango
- Yellow Pages Local Search
- Foursquare
- Avast!
- Files by Google
- Android Device Manager
- SwiftKey Keyboard
- Lightroom
- Adobe Photoshop Express
- VSCO Camera
- imgur
- Google Photos

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- Office Suite + PDF editor
- Google Inbox
- Google Drive
- Dropbox
- Evernote
- Google Docs
- ExpressVPN
- Adobe Scan
- Box
- Google Assistant
- CloudCal

https://www.digitaltrends.com/mobile/best-android-apps/

IV. APPS ON APPLE'S iTunes



Fig. 3. Showing apps available for Apple Phone from Apple Store
- iTunes

Source: https://www.apple.com/in/itunes/charts/

Like Google, Apple has also its own store where Apple users can download their favorite mobile apps. Apple majorly divide the apps into the following categories like, Featured, Songs, Albums, Films, Free Apps, Paid Apps, Music, Videos.

The following list is showing the best application for iOS platform for Apple mobile devices (May 2019). The list includes the free apps as well as paid applications.

The best iPhone apps available right now (May 2019) [4]

- Google
- Google Chrome
- Facebook
- YouTube
- Bitmoji
- Instagram
- GroupMe
- Messenger
- Skype
- Google Duo
- WhatsApp
- Tinder
- Bumble
- Quiz Date Live
- Grindr
- Tasty

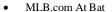
- Yummly
- Cookpad
- Food Network In the Kitchen
- Uber Eats: Food Delivery
- Xbox
- PlayStation
- Twitch
- Strafe eSports
- Yelp
- StubHub
- Fandango
- Ticketmaster
- Open Table
- Couch to 5K (\$3)
- Caln
- Strava Running and Cycling: GPS Run and Ride Tracker
- GymBook
- Yoga for Complete Beginners
- Headspace
- Spotify
- Pandora
- Soundcloud
- YouTube Music
- Apple Music
- Shazam
- The New York Times
- Al Jazeera English
- Pocket Casts (\$4)
- Apple News
- NPR News
- PayPal
- Venmo
- YNAB (You Need a Budget)
- Splitwise
- Snapseed
- Enlight (\$4)
- Afterlight 2 (\$3)
- Halide Camera (\$6)
- Facetune (\$4)
- Apple Books
- Kindle
- Google Play Books
- Goodreads
- Audible
- Amazon
- eBay
- OfferUp
- Poshmark
- Krazy Coupon Lady
- Twitter
- TikTok
- Tweetbot 4 (\$5)
- Snapchat
- Smule
- Apple Clips
- ESPN

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- FuboTV
- Coach's Eye (\$5)
- NFL
- Netflix
- Hulu
- Amazon Prime Video
- YouTube TV
- Crunchyroll
- Uber
- Lyft
- Airbnb
- Duolingo
- Google Maps
- Waze
- Transit
- Via Affordable Ridesharing
- Todoist
- Google Translate
- Dropbox
- Better Blocker by Ind.ie (\$1)
- Reflectly
- Weebly
- WordPress
- Tumblr
- Pages
- Google Docs

Looking at the huge list of apps for both Android and Apple mobile devices some are popular and downloaded by almost all the users like Facebook, Snapchat and Whatsapp etc. there are also apps other than the list which are not used by users they are obsolete by the time.

The following images shows the most popular mobile apps downloaded by users. People are used to these applications, these are the most important apps preferred by the users on their usage and benefits on the top it is Facebook the numero uno social networking site and app followed by YouTube, FB Messenger, Google and others.

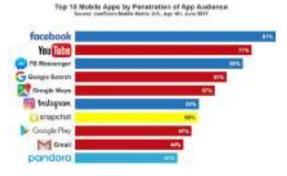


Fig. 4. Showing top 10 Apps by penetration in users.

Source: https://www.comscore.com/Insights/Presentations-and-Whitepapers/2017/The-2017-US-Mobile-App-Report

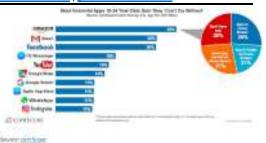


Fig. 4. Showing must have apps in the mobile phone – age group 18 to 34.

Source: https://www.comscore.com/Insights/Presentations-and-Whitepapers/2017/The-2017-US-Mobile-App-Report

Looking at the huge list of apps and their market penetration of apps are being developed by many app developers who are constantly uploading the new apps for making mobile device more useable.

The point to ponder is that why these apps are popular and most of them are free to use until and unless they are catering to the specific need for the user. Most of the apps has advertisement to be shown while user uses the apps this advertisement earns revenue for the app developer and the app stores.

There are some steps in earning money from these apps like if the app is installed activated or Acquisition of the app via the route the user is downloading the app, Retention means the user is using the app and other people are also using the app like Facebook and Whatsapp, Referral means the user is referring the app in his / her friend circle to download it and use like Google Pay is giving some amount on the referral the app, when the other person download the app though the link and use it for the first time the first person get the amount in his/her account.

Revenue- money generated from the application is the major reason and other best possible reason could be the ease of use and utility of mobile device other than making calls. People are continuously working on developing the apps for the mobile world.

Apple reveals the most popular iPhone apps of 2018

These are the top 20 free apps of the year, according to Apple

- YouTube
- Instagram
- Snapchat
- MessengerFacebook
- Bitmoji
- Netflix
- Google Maps
- Gmail
- Spotify Music
- Amazon
- Uber

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- WhatsApp Messenger
- Pandora
- Wish
- TikTok
- Cash App
- Google Photos
- Google Chrome
- Twitter

The full list of the top 20 most downloaded free games is below:

- Fortnite
- Helix Jump
- Rise Up
- PUBG MOBILE
- Hole.io
- Love Balls
- Snake VS Block
- · Rules of Survival
- ROBLOX
- Dune!
- Subway Surfers
- Episode
- Word Link
- Toon Blast
- Color Road!
- HQ Trivia
- Twisty Road!
- 8 Ball PoolTM
- Kick the Buddy
- Sniper 3D Assassin: Gun Games

In addition, Apple's App Store editors also announced their own picks for the best apps of the year. They named sketching app Procreate Pocket as the overall best iPhone app of the year and Donut Country the top game. [5]

Mobile app development for the market, the mobile market is majorly divided into two Android and iOS platform. Android apps are different form iOS apps they do not work on iOs devices and vice versa. There is a technical difference between two technologies, Android apps are open source and iOS is Apple's technology.

iPhone Development Process - iPhone development is fully controlled process by Apple, it uses Objective-C language and Message based architecture that is Similar to Smalltalk. No Java VM or other 3rd party plugins are used. "An Application may not itself install or launch other executable code by any means, including without limitation through the use of a plug-in architecture, calling other frameworks, other APIs or otherwise. No interpreted code may be downloaded and used in an Application except for code that is interpreted and run by Apple's Published APIs and built-in interpreter(s)." – iPhone SDK EULA [6]

The following graphics are showing the various stages/concepts used in the development process of iPhone and android mobile device. Looking at the graphics we can see the difference in the technology used by two major players. Android has its open structure flexibility whereas iPhone has its controlled process advantage.

iPhone Development: SDK

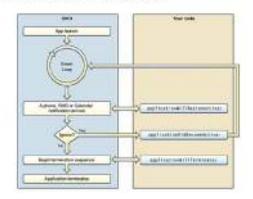
· Four distinctive framework API's

- · Cocoa Touch Layer
- . Media Layer
- · Core Services Layer
- · Core OS Layer

o IDE

- · Xcode
- · Interface Builder
- · iPhone Simulator
- On phone application development.

iPhone Development: Application Life Cycle



Doose Touch

Core Services

Cost CS

ANDROID DEVELOPMENT: THE STACK



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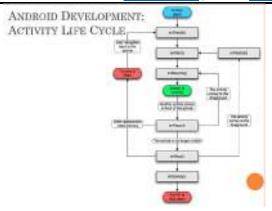


Fig. 5. Showing Android Development life cycle.

Source:https://www.cs.cmu.edu/~bam/uicourse/830spring09/BFei
ginMobileApplicationDevelopment.pdf

App developers are making apps to run on the both system for making mobile device live and more of use. There are mainly two options to develop an app for mobile devices offline and online.

App developers uses specialized integrated development environments such as Android Studio or Eclipse for developing apps. The developed mobile or other platform app is first tested using emulators which is a software simulation tool for actual hardware device [mobile T.V. or PDA] and finally on the device. User interface Design for mobile device is another indispensable part in app development process. The User interface Design involves considerations of contexts, screen size, color, icons, navigation and user input and output mobility.

- Mobile Analytic Tools- Flurry, Countly, Localytics, AppFigures, Bango, Amplitude, Mixpanel, Facebook Analytics for Apps.
- Cross-Platform App Development Tools- Adobe, Xamarin, Appcelerator, iFactr, Kony, SAP
- App Development frameworks Ionic, React Native, Xamarin, Adobe PhoneGap, Flutter, Corona SDK, JQuery Mobile, Intel XDK.
- iPhone App development tools XCode , AppCode, Code Runner, RxSwift, Testflight, Fabric, Applyzer, Stack Overflow
- AR (Augmented Reality) Tools Appy Pie's AR/VR App Builder, Vuforia, EasyAR, Wikitude SDK.
- AI(Artificial Intelligence) Tools Amazon Web Services, AI-one, Deeplearning4j, Apache Mahout, Open Neural Networks Library (OpenNN).
- Advertising Tools AdMob, Doubleclick, mMedia.
- Mobile Payment Tools Square, PayPal, Venmo, Bitcoin
- Push notification Tools Amazon SNS, Carnival.io, OneSignal, Kumulos, Pushwoosh,

Urban Airship, Leanplum, Intercom, SWRVE, Mixpanel, Catapush, Taplytics.

 Game Engines - Unity, Unreal Engine, Corona SDK - The 2D Game Engines, SpriteKit - 2D sprite-based games, Marmalade SDK, Buildbox, AppGameKit, Construct 2

Offline, app development includes all or few of the above mention software tools and installation of SDK for different platform and develop the app.

Online app development, is a bit different from offline app development it is done by using app development software or app builder software or Drag n Drop app builders, these programs have the aim to simplify app development and allow anyone, with no or minimum programming skills, to make a mobile app of their own. With those, the process does not necessarily require coding, designing or hiring professional developers. App building software provides basis to put building blocks for an app together, set up basic functionality and design using templates or allow user to create their own structure.

Online app builders are with interface templates and dragn-drop components and let user to construct a unique and popular app. But the apps like Facebook, WhatsApp, Instagram etc. positively not. But it doesn't mean online app builder software totally worthless the ability to create a basic mobile app on your own in few hours can be done by online app builder software.

Types of online app development software can be separated into two categories $-\,$

- 1. Platforms that can produce mobile versions of web sites.
- 2. Platforms that can produce native mobile apps real app in a full sense, made for specific devices, e.g. Android apps published in the Google Play, or iOS apps.

Best App development software - May 2019

- Experitest
- App Watch
- Xamarin
- Appcelerator
- PhoneGap
- Ionic
- Mobincube
- Longrange
- Ot
- Alpha Anywhere
- Sencha
- KendoUI
- Mobile Angular UI
- NativeScript
- Onsen UI
- FireBase
- Swiftic
- VuForia
- Easy AR
- TenserFlow

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- Unity Ads
- Braintree
- Card.io
- Urban AirShip
- Pusher
- Corona [7]

https://www.guru99.com/mobile-app-development-tools.html#3

- Appy Pie
- Kalipso Studio
- appery
- AppsBuilder
- Andromodo
- Appsmoment
- Verivo AppStudio
- AppYourself
- OpenCart Mobile App Builder
- Magento Mobile App Builder
- Snappii
- Bobile
- GameSalad
- Mobile Roadie
- Nevercode
- Appsmakerstore
- AppInstitute AppBuilder
- AppSheet
- Yapp
- Bizness Apps
- Shoutem
- AppMachine
- GoodBarber [8]

https://thinkmobiles.com/products/app-development-software/?page=2

There are variety of platforms online as well as offline to develop the apps for mobile device. From the list above mentioned app developer has lot of options to select the method or app depending upon the behavior of the app whether it is a gaming app or utility app, online app platform provide no coding app developing experience where any person who has some logic but no or little coding experience can develop the app. These platform gives the drag and drop app development experience where the app developer can drag and drop the controls and decide the behavior of the under developing app. These online platform gives the app developer different pricing options with different features. The user has to consider the potential, capabilities, available platforms, trial and pricing of using the platform.

After developing the app for mobile or other devices, app need to be deployed on some online app store like Google Play Store and iTunes so that users can download the app for their use. To get maximum coverage in the app market the app should have proper focus and should be visible and readily downloaded from the stores. The above mentioned app stores are having millions of app on their list the new app can lost in the jungle of apps.

Play store and iTunes are not only the options available to the users there are many other options available to upload the app to get visibility in the app market.

Number of apps on Top Android App Stores, in millions

Name	Available Apps	
Google Play	3.6 million	
Amazon AppStore	0.43 million	
GetJar	0.85 million	
Aptoide	0.7 million	
Opera Mobile Store	0.3 million	

Table. 1. Showing number of Android apps available on various stores.

 $Source: https://en.wikipedia.org/wiki/List_of_mobile_app_distribut\\ion_platforms$

Number of apps on Top iOS App Stores, in millions

Name	Available Apps
App Store	2.2m
Cydia	n/a
GetJar	0.85m
Appland	0.13m

Table. 2. Showing Number of apps on Top iOS App Stores, in millions

 $https://en.wikipedia.org/wiki/List_of_mobile_app_distribution_pla\\tforms$

Top 10 Android App Stores Market Coverage in China, July 2017

Ranking	Name	Market Share
1	MyApp (Tencent)	25.5%
2	360 Mobile Assistant	14.8%
3	Xiaomi App Store	11.5%
4	Baidu Mobile Assistant	11.5%
5	Xiaomi Game Center	10.3%
6	Huawei App Market	10.2%
7	OPPO App Store	7.2%
8	Sogou Mobile Assistant	4.4%
9	PP Mobile Assistant	3.6%
10	Google Play Store	3.6%

Table. 2. Showing Top 10 Android App Stores Market Coverage in China Source: https://newzoo.com/insights/rankings/top-10-android-app-stores-china/

OPERATOR AND COUNTRY-SPECIFIC STORES

While many app stores run by mobile network operators have shut down in recent years, there are still a few holding strong, especially in India where Aircel and Airtel are among the bigger app stores thanks to their catering for SMS-triggered app downloads. Other stores are country specific, with a great example being the MTNPlay storefront which covers a large number of countries in Africa, supplying not only apps but also music and other content.

Airtel Srilanka – One of the main mobile phone service providers in Sri Lanka has its own app storefront.

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TIM Store – App store for one of the major Italian mobile operators Telecom Italia Mobile, which is also the Italian Netflix carrier. Has free and paid-for apps for all platforms.

AT&T App Centre – Doesn't offer many apps, but those it does target productivity and device security for your AT&T mobile phone or tablet.

T-Store – SK Telecom is South Korea's main mobile service provider, and its store provides apps as well as content for Android devices.

Turkcell T-Market – Turkish mobile provider Turkcell's official store. Apps are for Android and Symbian, and there is also an English version of the marketplace.

MTNPlay – Pan-African content portal run by South African provider MTN – it has customized stores for 22 different African countries and offers music, news, videos and much more content besides apps. [9]

BOTTLENECKS IN MOBILE DEVELOPMENT

Looking at the strong competition for Google Play and iTunes and it is increasing day by day. App developer wants visibility of their apps so that users can download the same and finally they can earn some revenue.

App look n feel - Icons and colors is another important aspect to be considered. The first thing that catches any user's attention is the icon being used.

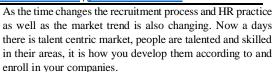
Screen Size – smartphones are available in number of variety with different screen size, an app developer has to keep this in mind while developing the app the developed app should be compatible for all screen size.

Mobile Processor and Battery Life- the complete load of mobile application is on the processor and the battery, these two things are essential in keeping the mind while developing the apps for mobile devices. If your app consumes too much power, there are high chances of user avoiding the use of app and trying for alternative app that runs smooth on processor and save battery power. Good looking and eye catching color of app interface and logo is another part which is equally important, interface should be smooth navigation and simple.

Another aspect come in the frame, how to develop the perfect app. This requires a constant updation and interacting with other developers and attending the workshops and conferences where the app developer can clear his doubts or get user experience for his benefit.

HUMAN RESOURCE - MARKETING

Companies are hiring the best talent, but it is becoming very hard to recruit the right person for the right job. Human resource process is running from a very long time to fulfill the gap but it is always hard to find out the right one.



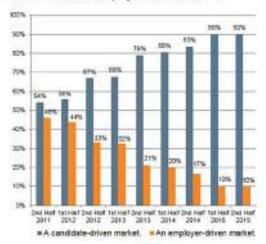
Traditional HR practice is no longer effective these days, there are number of companies increasing every day and the skilled workers are also produced from the colleges/ Institutions. Traditional HR practices are time and money consuming and the skilled people always have the question which organization is best for their carrier and on the other hand companies wants to get stable and talented employees.



Traditional HR practices

The market is changing from employee driven to the candidate driven market. The study done by MRINetwork Recruiter Sentiment Survey, across our approximately 600 worldwide offices, to evaluate the current employment landscape and to project its direction. The current job market is 90% candidate driven. That means you don't pick talent anymore. Talent picks you. [10.] This environment provides candidates with the confidence to reject undesirable job offers, with 47 percent of recruiters listing "accepted another offer" as the primary reason for offer objections.

Is it a Candidate or Employer-Driven Market?



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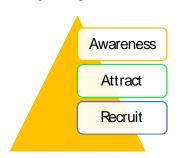
Website: www.jmeit.com | E-mail: editorjmeit@outlook.com | jmeit@outlook.com

Fig. 6. Showing market is candidate driven.

Source:https://www.mrinetwork.com/media/1036/2015_recruiter_
sentiment_study_2nd_half.pdf

From the above graphic it seems that trend is changing from 2012 and till 2015 there is 90% candidate driven market and at the present time 2019 the situation needs that the employed should understand that the old traditional HR practices will no longer work to attract talented employee.

The new concept of **Human Resource – Marketing** will be in effect treating the employee as a customer and applying the marketing strategies to attract your potential customer will in effect for the promising result.



New HR - Marketing Strategy

In contemporary scenario the completed HR process is changing from traditional way of recruiting people. Candidates are attracted towards Brands, they are having more than one offer, job offer rejection is increasing, and the "Time" is becoming the deciding factor for candidates that which employer accepts him first. Other HR practices are from Social Media like Facebook or LinkedIn, inside referrals by present employee, talent pools etc. all efforts are made by employers to beat the clock – time. Time is the key for new employment process.

To attract the potential employee in time there are many efforts going on by the companies that will help in building the company's brand value too. As the market is expanding and competition is rising if we think in the framework of employees as customer and employers are marketers who need customer to drive them to capture the bigger section of the market pie, in normal market condition a company has larger number of customer enjoys bigger section of market pie for e.g. Reliance Jio in the mobile services.

The next thing is how to create brand awareness and to attract the customers [potential employee]. These are few recent examples of talent that shines in the world of app development and attracted towards **Apples WWDC** an annual event by Apple.



NEW DELHI: Palash Taneja was in class 10 when he suffered from dengue fever and bedridden for three months. The 18-year-old from New Delhi then created an app that allowed you to see hospital bed availability and book it. Likewise, Akhiil Toleni was 13 years old when he built a music player application called "iMusic" and launched it on the Apple AppStore. The music player went on to get 500,000+ downloads from users across the world, and it was acquired by a company based in Sweden three years later.

Now Tolani, Taneja and a few others are headed to Apple's annual developer's conference WWDC, starting on June 3 in San Jose, California.

Jay Firke, a student at Macro Vision
Academy, Burhanpur is working an eportfolio IOS app where class teachers can
out the students report about skills and
educational topics. "I want to know and learn
about new AR," says Firke about what he
expects from WWDC.



Taneja, on the other hand, wants to get "understand how an idea or a feature is conceived and implemented in a setting with the scale of not thousands but millions of users," As a child, Taneja would dismantle toys, electronics and got into programming in class 5 to "to figure out how software worked."

Every year Apple at WWDC takes a few student scholars to attend the event and these scholars also get one-year membership in the Apple Development Program.

Sudarshan Sreeram, 17, is one of those who attended WWDC in 2018 and has this to say about his experience. 'As a WWDC18 scholarship winner, I can confidently state that attending the conference has certainly taught me a great deal about the systematic processes involved in the iOS application velopment cycle and the skillset and actices required to push out a successful

project.*

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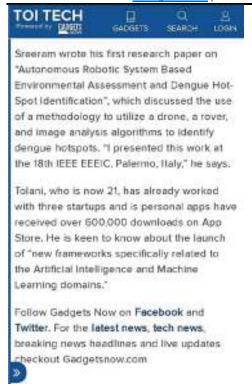


Fig. 6. Showing news from TOI on WWDC. Source: TOI news

Palash Taneja was in class 10, during his hospitalization for Dengue Fever he created an app to see hospital bed availability and its booking.

Akhil Tolani, created app called "iMusic" and launched on Apple store his app has downloaded 500000+ times from the store.

Jay Firke and Sreeram are few examples who have shown their talent in app developing. Palash Taneja and Akhil Tolani, are heading to attend the Apple's annual event for app developers - WWDC.

APPLE'S ANNUAL EVENT FOR APP DEVELOPERS - WWDC.



Write code. Blow minds.

Apple Worldwide Developers Conference – **WWDC**, the most awaited tech conference by Apple as an annual event for the developers, people are invited to attend the conference worldwide through lottery system to get the seat to attend. It is one place for all the news, resources, challenges, scholarships, memberships and other benefits for the coders who are engaged in app development process. In each WWDC apple announces the new products or the upcoming versions of the product like iPhone, Mac OS or Apple TV and the new features and discontinued features of the products.







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Fig. 7. Showing various Animoji depicting themes at Apple's WWDC- 2019.

This is not an invitation. It's a challenge.

This is your chance to join thousands of coders, creators, and crazy ones this summer to do the insanely great. As the Apple WWDC website gives the details of future happening events in the summer 2019. [11.]



https://www.iclarified.com/70937/apple-sends-out-invites-forwwdc-2019-keynote



Fig. 8. Showing Apple's WWDC conference https://media.wired.com/photos/5a99b8d2927dc94e67685b99/master/pass/GettyImages-539893086.jpg

Write code. Blow minds, this year Apple's WWDC theme at this conference there are number of events scheduled and many new announcement are going to happen along with other standard things. The following are scheduled to happen on this year's WWDC.

- Sessions
- Hands-On Labs
- Consultations
- Get-Togethers
- Guest Speakers
- Special Events
- Tickets
- Scholarships

Apple's WWDC - Worldwide Developers Conference, is a big platform for developers who are into the app development process especially on apple's platform.

At Apple's WWDC - Worldwide Developers Conference there are Sessions - technical and design-focused sessions presented by Apple engineers to help you build the next generation of apps. There is **Hands-On Labs**- Get in-depth details on how to implement new features, directly from the engineers who helped build the latest advances in Apple platforms. After developing apps a consultation is needed for the app developers how to propagate and percolate into users mobile device for this at WWDC there is Consultations session with apple experts Make an appointment to take your apps to the next level with one-onone guidance from experts on user interface design, accessibility, app review, marketing, analytics, app distribution. Get-Togethers - Engage in motivating conversations around key topics with fellow developers and Apple experts. Meet new people, consider different ideas, and encourage each other to reach new heights. After these technical sessions there is more at apple's WWDC, Guest -Speakers - Explore a variety of perspectives and gain valuable insights through compelling presentations given by industry experts and luminaries. Special Events - Take advantage of a full week of exciting experiences, including great fitness and evening events for attendees, and thirdparty events around the city. Tickets - The opportunity to buy tickets to WWDC19 is offered by random selection. **Scholarships** - Students and STEM organization members

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can apply to receive a conference ticket, lodging, and one year of membership in the Apple Developer Program.

As per the information available at Apple's WWDC website there are various things that attracts app developer to attend for seasonal developers for new go getters the main attraction is membership of Apple Developer Program that give new heights in the app development and learning experience.

CONCLUSION

App development is trending and growing market as the number of mobile users are increasing due to better and high speed internet connectivity there is a vast scope for app market. There are billions of apps registered on the various app distribution platform including Google's Play Store and iTunes for Apple platform. For developing the apps the app developer are needed and there is an acute need to distribute the developed app to the potential customer of course there is strong reason of generating revenue from it, there are many apps available for free and free for some trial period. The other main important thing that came up during the research is that the market is candidate centric and companies has to market itself being candidate as customer the market strategy to attract potential customer is essential, for doing this companies are going to test various marketing tactics to attract the customer [candidate]. This year's Apple WWDC is one of the attraction center for the app developers with huge tangible and intangible benefits for the candidates. There are many who attend earlier this conference and became a part of Apples Development Program are reaping the benefits at later stage.

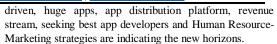


http://altconf.com/

Similar to the Apple's conference, AltConf - THE ALTERNATIVE APPLE DEVELOPER CONFERENCE. AltConf is a free, community-driven and supported event, held in downtown San Jose alongside Apple's WWDC. AltConf will continue to host its traditional Keynote and State of the Union viewings with capacity for over 900 attendees on Monday 3rd June, followed by 3 packed days with content spread over 2 tracks and one lab room. And new for 2019, we're introducing the Escape Room! [12]

These are tools for creating the awareness for the specific platform and getting the interested candidates to join them and together develop.

The market for Human Resource is changed in the contemporary scenario from employer driven to candidate



The present research involves one or two dimension further deep study can be done at the later stage. Developing novel and advanced apps will lead to a possibility of considerable revenue stream. There are also few research observations made that the present research could serve as a guiding light for future areas of research.

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