

Swift:

Just like we have IOS's native programming language, Swift programming language announced in 2014 at Worldwide Developers Conference(WWDC). It was actually built by engineers at Apple as a replacement to objective-C. Engineers created it by gathering their previous knowledge and doing continuous research on other old and modern programming languages. It is also called Apple's next generation programming language for the future. It is a powerful language which is easy to learn. Swift works with Apple's Cocoa and Cocoa Touch frameworks. To developers, Swift is a safe language whether its memory safety, type safety, design and it gives more compile time errors rather than runtime-errors. So if we fix those errors during compilation, there are less chances of applications getting crashed. It was inherently designed to improve security of iOS products. It uses Automatic Reference Counting which tracks how much memory is being used by an application. However it cannot handle the direct usage of C++ libraries. Swift was announced as open source on its 2.2 release in 2015. Although Swift was built to develop software for Apple devices only, however it is now being used for non-apple native platforms as well, for example Tensorflow(which is a machine learning tool at google) is developed in Swift. It is also being used to write server code, called server-side swift. Engineers are also working to make Swift ready for windows as well. Apple released a book called The Swift Programming Language for the developers, who want to learn this programming language. Swift.org is a website where we can check communications related to swift, details of what new things are coming to the language, forums etc. and participate in discussions.

Objective-C :

Objective-C was introduced in the early 1980s by Brad Cox and Tom Love. It is a programming language used for developing operating systems of Apple products like iOS and OS X. The iOS operating system is actually used in iPhones and OS X is an operating system used in MAC. It is also used to develop applications for these two operations systems. It was derived using the Small talk & C programming language. Due to this objective-C has capabilities of fast execution and object oriented programming. However when it comes to improvements and changes, it still depends on C. It provides easy use of private API's , being the old programming language it is stable as well. It is compatible with C, C++ and Swift. If we compare it with other languages it is not very secure, has limited functionality and is very complex to learn. It uses null pointers which can cause vulnerabilities in code. It provides features like Dynamic typing and Categories. Dynamic typing ensures that objects can receive messages that are not specified in the interface. Categories provide a superclass structure that allows methods to be added to classes at runtime based on the requirements. This gives us enormous capability to expand our project when the code base is already very large. It supports Automatic referencing inside the object oriented code, however the issue is that it cannot access C-Code and other APIS. It has superior runtime as compared to modern languages like Swift.

TestFlight:

It is a beta testing tool where developers can release their applications for users, so that they can test their app features and give them feedback accordingly. We can have upto 25 of our iTunes Connect users join internal beta, which basically means users will get updates right away when we upload any update to the app store. And after internal test users, we can have external beta users. There are upto 10000 testers and in order for them to get an update it has to go through the app or review process. It can be downloaded from the app store pretty simple and easy to use. It allows us to send invites to people using just their email address or by sharing a public link, through our Apple Developer account on iTunes Connect. When they get the invite, they will receive a code. Then they can open Testflight and sign up for it using that redeem code. When we set up our app in App store connect, we must make sure that we choose the same bundle id that we used in our Xcode project. It provides us with a dashboard to see the things that we need to add before we deploy the app. Now to set up testflight we need a compiled version of the app on App Store Connect so that we can distribute it to people through the Testflight. After our build deployment we can go to iTunes and then to the Testflight tab to check if the build got uploaded successfully.

Apple Inc :

Apple is the most popular brand in the world of technology. Apple Inc is an American multinational company that manufactures consumer electronics and softwares like personal computers, smart phones, tablets and computer peripherals etc. It is popular for its hardware products including Macintosh computers, the iPod and the iPhone. There are Apple softwares available which includes the Mac OS X operating system, the iTunes media browser, the iLife suite of multimedia and creativity software, the iWork suite of productivity software, and Final Cut Studio, a suite of professional audio and film-industry software products. Formerly called Apple Computers Inc, it is now one of the successful technology companies having revenue of \$274.5 billion in 2020, which has its headquarters in Cupertino, California. The word "Computer" was removed from its name on January 9, 2007. It's been 45 years since Apple was first founded in 1976 by Steve Jobs, Steve Wozniak and Ronald Wayne. They wanted to make computers small enough for people so that they can easily use them at homes or offices. The founders of Apple worked at Atari back then, therefore the first Apple logo was created which depicted Issac Newton and his experiment related to gravity. After that Apple logo was designed with a rainbow scheme, it was used for 22 years until Steve Jobs had asserted the Apple logo after he returned from apple farm. Just after two years of foundation Apple 2 was released. It was more of a commercial product which got sold with its own case and had a 1 mega hertz MOS technology processor having 4 kilobytes of Random Access Memory. This was one of the three 1977 Trinity computers generally known for establishing a home computer market. Then Apple 3 was released in 1980 to push the business environment, however it lacked cooling technology which was the downfall for Apple three and the company had to call back thousands of models. On December 12th 1980 Apple launched the Initial Public Offering of its stock, which resulted in creating more millionaires than any company in history. Apple's initial computers were actually text based machines. Apple launched its first Mac computer with Graphical User Interface in 1983. In

1997 Steve Jobs announced that Apple is partnering with Microsoft having a commitment that Microsoft will release Microsoft Office for Macintosh computers. Till now Apple has launched its smartphone series Iphones, Ipods, Imac, Apple Watches and Macbooks etc. So far Apple has released 13 generations of Iphones with several versions of the Ipad. All their products are doing great in the market and their success has helped Apple become one of the world's most valuable technology companies.

Steve Jobs:

Steven Paul Jobs founded the world's first Trillion dollar company known as Apple Inc. with the help of Steve Wozniak in 1976. He was in his mid-20s when he founded Apple. Steven Paul Jobs was born on 24th February 1955 to Abdul Fattah John Dalli and Joanne Siebel in San Francisco. But then he got adopted by Paul Jobs and Claire Hagopian. He was always grateful to this couple who adopted him and he always considered them as his parents. Since childhood he was keenly interested in electronics and used to hang out with many engineers from his neighbourhood. He studied at Mont Aloma Elementary school in Mountain View, from which he later dropped off because of frequent bullying. He went to Reed College in 1972 but dropped out that same year, and traveled through India in 1974 and studied Zen Buddhism. He along with Co-founders of Apple launched his first computer with a keyboard which had the ability to connect to a TV as a screen. They called this first computer Apple1. A year after the foundation Apple 2 was released. In January 1984 Steve Jobs launched the first Macintosh computer to a huge audience, it was marketed as a computer and sold well back then. Steve Jobs was forced out of his own company in 1985, after a long power struggle with board member John Scully. With the help of a few Apple's macintosh team members he then founded a company called Next that specialized in computers for business markets. He also bought Pixar from George Lucas. Steve Jobs returned back to Apple in 1997 when Apple's CEO Gil Amelio purchased Next. After that Next technology became the foundation for Mac OS X operating system. He became CEO in 1997 and restructured the company again. In August 2011 Steve Jobs died because of respiratory arrest related to pancreatic neuroendocrine tumor.

