**iOS**

* iOS is operating System it is used to run iphone , ipad, and ipod application .
* The iOS operating System it is used to to mangae and handle the hardware devices and technology is used to to implement the native apps.
* The iOS Software Development Kit contains tools and interfaces it is used to develop, install, run and test native apps.  
  Native apps built by using Objective C lang iOS System frameworks and objective C language and run directly on ios .
* The iOS Layers Architecture:
* The Highest level iOS acts as intermediate Between underlying hardware and apps you create.
* Apps will not talk directly to the underlying hardware instead of it communicate with the set defined interfaces. These interfaces is easy to write apps that work consistently on devices and having different hardware capablities.

**Layers Of iOS:**

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| **Cocoa Touch** |
| **Media** |
| **Core Services** |
| **Core OS** |

* ios Technology packaged as Frameworks.
* Apple delivers most of system interfaces in special packages called as framework.
* Framework: A Framework is an directory it contains dynamic library and resources such as header files, images, methods it need to support that you want to use the frame work you add them to your project in xcode.
* **Cocoa Touch Layer**:
* The Cocoa Touch Layer it contains key framework for building iOS apps.
* These framework define appearance for your app.
* Cocoa Touch Layer also provides basic app infrastructure and also support key technology such as multitasking, touch-Screen, push notifications( notify a user of new messages or events even when the user is not actively using your application) and also provide high level System Services.

**key technologies available in the Cocoa Touch layer:**

**App Extension**: app Extension you extend custom functionality and content Beyond your app. make it useful for user while using other apps or the sytem.

**Several types of app extension:**

|  |  |
| --- | --- |
| Extension Point | Typical Extension Functionality |
| Share | Post sharing website or share content with others. |
| Photo Editing | Edit a photo or video within the Photos app. |
| Custom Keyboard | Replaces custom keyboard for ios app |

* **Handoff**: Handoff means exchanging things from one to another .
* Handoff feature is available in OSx and iOS.
* handoff User begin activity with One user and switch to another device.
* Example: User is using Browser safari in Mac can move to iOS Device signed into icloud into same Apple ID and and opens same webpage automatically in safari on iOS .
* **Document Picker:**
* iCloud Drive and its associated Document Picker are new features of iOS 8 that allow the app you're using to open files created in a diffeent app, import them, move them.

Document Picker feature is user select document from outside app.

 documents stored in iCloud Drive and documents provided by a third-party extension

**iCloud Drive** is Apple's online storage service — a place to keep all your files and access them from all your Apple devices, including your iPhone, iPad, and Mac.

* **AirDrop:**
* AirDrop introduced in iOS 7 we can beam files from one **iPhone**, iPod touch, or iPad to another over a secure, ad-hoc Bluetooth and Wi-Fi connection.
* By using AirDrop we can share photos, documents, and messages
* We can send files to other device using UIACTIVITYCONTROLLER class.
* By using this class we can get different option for sharing the contents.
* **Multitasking:**
* With Multitasking, you can use more than one app at a time on your iOS device. You can also use features like Slide Over, Split View, and Picture in Picture on certain iPad models.
* **Storyboards:** Storyboard introduced in iOS 5.
* Storyboards help us create all the screens of an application and interconnect the screens under one interface MainStoryboard.
* It also helps in reducing the coding of pushing/presenting view controllers.
* Means all views and view Controller design in one place .and see how they work together.
* storyboards is the ability to define segues(means changing from one state or situation to another), which are transitions from one view controller to another.