**Media Layer**

* Media Layer it consists of audio, video and graphics technologies to implement multimedia expressions.

**Graphics Technology in IOS**:

* For Every App High Quality Graphics are Most Important.
* iOS Provide technologies to help custom art and full support for graphics on Screen.

**i) Uikit graphics**:

* UIKit is an Objective-C API that provides basic 2D drawing, image handling, and ways to animate user interface objects.
* UIkit define High level support for drawing images.

ii) **Core Graphics framework**:

* Core graphics is also called as Quartz.
* It provide support for custom 2D vector and image based rendering. (rendering means provide or give service, help).

iii)**Core Image:**

* Core Image framework means for manipulating video and Images.
* You can use the built-in filters for everything from touching up and correcting photos to face, feature, and QR code detection.

iv) **TextKit and CoreKit:**

* It is family of UIKit class it is used for typography and text management.
* Suppose If Your app performs any advanced text manipulation then it integrate with rest of your apps.

**v)Core Text**:

* It is Lower level-C based framework for handling typography and layout.

**vi)Images I/O:**

* It Provides interfaces for reading and writing most images formats.
* Means interfaces for importing and exporting image data and image metadata.
* This framework makes use of the Core Graphics data types and functions and supports all of the standard image types available in iOS.

**vii)Photos Library:**

* The Photo and Photos UI framework both provide access to user photos, video and media.
* Audio Technology: Audio and video Both supported with help of AVFoundation.framework and MediaPlayer.framework.

**Audio Technology in iOS**

i **)MediaPlayer.framework:**

* It will give support for playing audio and video in app.
* This is high level framework support playing tracks and play lists.
* You use this framework when you want to integrate audio into an app.

ii) **AVFoundation.framework** :

* AV Foundation is an interface for objective c for managing recording and playback of auio and video.
* Use this framework for audio and you need fine grained ControlProcess ( i.e viberate accoring with sound).

**iOS Supports Many audio formats:**

* AAC
* Apple Lossless (ALAC)
* A-law
* IMA/ADPCM (IMA4)
* Linear PCM
* µ-law
* DVI/Intel IMA ADPCM
* Microsoft GSM 6.10
* AES3-2003

**Video Technolog ies:**

* The ios video technology provide support for sreaming video contents from the internet. and we can record video in your app.

**Different Video Technologies in iOS:**

**i)AV Foundation**:

* AV Foundation provides advanced video playback and recording capabilities.
* We can use this framework whenever doing presentation or recording video .

**ii)AV Kit:**

* This framework it is used to set interfaces for presenting video.
* This framework supports for both full-screen and partial screen video play back.

**iii)Core Media:** Core Media frame work it define low level data types and interfaces for manipulating media.

It is used to control over your apps video content

**Video Formats for iOS:**

* H.264 video, up to 1.5 Mbps, 640 by 480 pixels, 30 frames per second, Low-Complexity version of the H.264 Baseline Profile with AAC-LC audio up to 160 Kbps, 48 kHz, stereo audio in .m4v, .mp4, and .mov file formats
* H.264 video, up to 768 Kbps, 320 by 240 pixels, 30 frames per second, Baseline Profile up to Level 1.3 with AAC-LC audio up to 160 Kbps, 48 kHz, stereo audio in.m4v, .mp4, and .mov file formats
* MPEG-4 video, up to 2.5 Mbps, 640 by 480 pixels, 30 frames per second, Simple Profile with AAC-LC audio up to 160 Kbps, 48 kHz, stereo audio in .m4v, .mp4, and.mov file formats.

**Air Play**:

* English Meaning is the number of times that a particular song played.
* AirPlay to wirelessly stream content from your iPhone, iPad, or iPod touch. With AirPlay, you can stream music, photos, and videos to your Apple TV.
* Airplay is your app stream audio video contents to Apple Tv. and also stream audio contents to third party Airplay Speakers and receivers.

Airplay Support many frameworks:-

* UIKit Frameworks
* Media Player Frameworks
* AV Foundation Frameworks
* Core Audio family of framework.

**Media Layer Frameworks**

The Following framework are defined are:

i) **Assets Library framework:**

* Assets English meaning is a useful or valuable thing.
* These Library framework provides set of photos and videos used by Photos app on user's device.
* These framework it is used to access items in user's saved photo album . You can also save new photos and videos back to the user’s saved photos album.

**ii)AV Foundation Framework:**

* The AV Foundation framework it used for set of Objective C classes for playing ,recording, and managing audio and video content.
* Use This framework when you want to integrate media capabilities into your apps user interface.
* By using this frame work you playing multiple sounds and Its having control of play back and recording process.

The Services Offered By this framework are :

* Audio session management, including support for declaring your app’s audio capabilities to the system
* Management of your app’s media assets
* Support for editing media content
* The ability to capture audio and video
* The ability to play back audio and video
* Track management
* Metadata management for media items
* Stereophonic panning
* Precise synchronization between sounds
* An Objective-C interface for determining details about sound files, such as the data format, sample rate, and number of channels

**AVKit Framework:**

* The AVKit leaving existing Object in AV Foundation  to manage the presentation of video on a device.
* It is intended as a replacement for the Media Player framework when you need to display video content.

**Core Audio:**

* It is family of frameworks it is used to support Audio
* These frameworks support the generation, recording, mixing, and playing of audio in apps.
* You can also use these interfaces to work with MIDI content and to stream audio and MIDI content to other apps.( Musical Instrument Digital Interface)

**Core Graphics framework**:

* Core graphics is also called as Quartz.
* It provide support for custom 2D vector and image based rendering (rendering means provide or give service, help).:

**CoreAudioKit Frameworks:**

* It provides standard views for managing connections between apps that support inter-app audio.

Core Graphics Framework:

* It contains interfaces for Quartz 2D drawing API.
* It supports path-based drawing, antialiased rendering, gradients, images, colors, coordinate-space transformations, and PDF document creation, display, and parsing.