

## Basics

1. Properties, iVar, global variables, method parameters
2. Strong, retain, weak, unsafe\_unretained, assign, copy, atomic, nonatomic, readonly, readwrite
3. Change value of readonly property
4. Deep copy, shallow copy:-
  - Internal working
  - Memory impact
5. @synthesize, @dynamic:-
  - Where to use which one
6. Deep linking:-
  - Key Value Observer
  - Key Value Compliant
7. Class methods & instance methods
8. Inheritance
9. Category & extension:-
  - Significance and requirement

## Memory Management

1. ARC, MRR:-
  - Internal working
  - How to use both types of files in a single project
  - Significance of “-fno-objc-arc”
  - Retain count (In depth understanding for both ARC and MRR)
  - NSAutoreleasePool, @autoreleasepool, autorelease
2. Significance of dealloc method (When and why to use)

## Method Call-back implementations

1. Delegates & datasources:-
  - @protocol, @optional, @required
2. Blocks:-
  - Syntax and working
  - Why to use weak references inside block
  - Change value of an object inside block
  - Pass parameters to block
  - Block as parameter
3. NSNotificationCenter
4. Difference between above 3
5. When and where to use which one

## Multi-threading

1. GCD
2. NSThread
3. NSOperationQueue
4. Integrate NSOperationQueue in GCD
5. Difference between above 3
6. Usage of above 3
7. Pros. & Cons. of above 3

## Networking

1. REST & SOAP services
2. JSON & XML parsing
3. Why “Transport Security Layer” is introduced
4. NSURLSession Vs. NSURLConnection:-
  - Pause request, resume request & cancel request etc
  - Upload & download files
  - Behavior when app goes to background or terminates
5. How to call a service when app is in background
6. AFNetworking library usage and working
7. Lazy Loading concept

## Data Caching

1. Core Data:-
  - In depth architecture
  - Core stack
  - NSManagedObjectContext, NSPersistentStoreCoordinator, NSManagedObjectModel etc
  - Multiple NSManagedObjectContext, NSPersistentStoreCoordinator, NSManagedObjectModel (feasibility and requirements)
  - Threading concept for Core Data
  - Entities, attributes, relations
  - Fault code
  - DB file types for Core Data
  - Handling when app goes to background or terminates
  - Version updation
  - Changes in iOS 10

2. SQLite:-
  - Integration and working
  - Threading concept for SQLite
  - Handling when app goes to background or terminates
3. UserDefaults:-
  - Directory in which user defaults of an app gets saved
  - Internal working
4. Key Chain:-
  - Internal working
5. PList:-
  - Implementation
6. Other available options
7. When and where to use which one

## Architecture

1. iOS Architecture
2. Application architectures:-
  - MVC
  - MVP
  - MVVM
  - Fassad
  - Any other
  - How to decide which one is better for your application

## Life Cycle

1. State of execution
2. How many app delegates can be created in an application
3. How “main.m” class works
4. Background modes
5. Behavior in background

## Coding Patterns

1. Singleton class:-
  - Multiple methods of instance return (Issues and requirements)
2. Other patterns

## UI

1. UIResponder, UIApplicationMain
2. UIViewController:-
  - Life cycle
  - Awake from xib
  - Which method is invoked first
  - Various methods significance
3. UITableView:-
  - How many cells are created when using reusable cells
4. UITableViewCell:-
  - Which method is invoked first
5. UICollectionView:-
  - Flow layout
  - Create cyclic view
6. Containers & stacks:-
  - Working and examples
7. Autolayout:-
  - Compression & hugging
  - setNeedsLayout
  - layoutIfNeeded
  - layoutSubviews
  - Autolayout Vs. Autoresizing
  - Why autolayout is introduced
8. Size class

## Testing

1. Unit testing
2. OCUnit
3. OCMock
4. XCTest

## Other

1. Enumeration & fast enumeration
2. NSCopying, NSCoder, NSCaching
3. AVFoundation, NSFoundation, CoreFoundation
4. CLLocationManager
5. Social media integration
6. Apple-Pay and other payment gateways (Eg: Paypal)

## 7. Local & Remote notification:-

- Integration
- Device token generation
- Device token uniqueness
- Device token updation
- Delegate methods
- APNS feedback
- Payload
- Responsive notification

## Theoretical

1. Developer account:-
  - Types and significance
2. Certificates, App ID, provisioning profile
3. Reasons for app rejection
4. In app purchase:-
  - Types
  - Limitations
  - Sandbox User
5. Sandbox environment
6. Significance of “Enable Bit Code” in build settings
7. Xcode enhancements from Xcode 6 to Xcode 8
8. Change log from iOS 7 to iOS 10