Module 1: Getting Started with Swift - I

1. Introduction to Swift.
2. Introduction to Xcode IDE
3. Structure of Swift program
4. Swift Playground
5. Basic Syntax.
   - If –statement
   - Using Guard
   - Switch statements
   - Operators and expression
   - Loops
   - Creating and using functions
6. Variables and data types.
   - Numeric, chars and bool data types
   - Optional variables
   - Variable scope
   - Enumerations
   - Struct
   - Using string objects
   - Computed vs stored properties
   - Property observers
7. Value vs Reference types
8. Struct, Classes and Enums
9. Extensions

Module 2: Getting Started with Swift - II

1. Working with collections
   - NSArray
   - NSDictionary
   - NSSet
   - NSMutableArray
   - NSMutableDictonary
   - NSMutableSet
   - Implementing fast enumeration in collection
2. Generics
3. Tuple
4. Functions
5. Subscripts
6. Closures
7. Swift 4 JSON Parsing
8. Swift functional programming (Map, Filter, Flat Map,Reduce)
9. Exception Handling

Module 3: iOS Development Basics

1. Getting started
   - Installing Xcode and iOS SDK

- Understanding Xcode.
- Creating a simple page iOS app
    - Project templates
    - Project structure

2. Using the iOS Simulator
3. Lifecycle of iOS application.
4. Broadcasting information using NSNotificationCenter

Module 4: Storyboards Controllers and Auto Layouts

1. Understanding delegation.
2. iOS View Controllers
    - Introduction to storyboards
        - Putting controllers on the storyboard
        - Walkthrough of controller's properties
        - Creating new scenes and segues
        - Making the connections
        - Storyboard References
        - Pushing Storyboard views programatically
        - Pushing Storyboard views using Segues
    - Creating UI
    - Introduction to Layouts and Views
    - Designing responsive interfaces with Auto layout
    - Adding and troubleshooting Auto Layout constrains
    - Create a sample UI
        - Connect Views to there Outlets and Actions
        - Responding to selections
        - Fetching data from controllers
        - Loading data into controllers
    - Dismissing the keyboard
3. Debugging iOS application.

Module 5: TableView , Collection View & Multiple Views.

1. Introduction to Table View
2. Creating a basic table view and data source
3. Loading data into Table View
4. Reusing table view cells
5. Customising table views
6. Editing UITableView
7. Deleting TableView Cells
8. Moving TableView Cells
9. UISearchController
10. UICollectionView
11. UIRefreshControl
12. Using navigation controller

Module 6: SplitViewController , Size Classes , UIStackView & Camera

1. UISplitViewController
2. UIPageViewController
3. Using Size Classes for AdaptiveLayout
4. Using Camera & Gallery to Capture Images
5. Using StackView to design UI

Module 7: Animation , Location , Maps

1. Animations
   - Core Animation
   - UIKit Dynamics
2. Working with Maps
   - MKMapItem and MKPlacemark
   - CLLocationManager
   - MKMapView
   - Routing intents to built-in Map App
   - Working with MapKit Local Search

Module 8: Multithreading , JSON, Network & Image Caching

1 Using NSURLSession to access web services
2 Implementing concurrency using Dispatch Queues and NSOperation
3 Networking with Alamofire , SwiftyJSON & Kingfisher
   - Adding/Managing frameworks using Carthage
   - JSON Handling using SwiftJSON
   - Performing Networking using Alamofire
   - Downloading & Caching images using Kingfisher

Module 9: Data Persistence & Security

1 NSUserDefaults
2 Property Lists
3 Introduction to Core Data
   - Creating models with entities
   - Storing / Fetching / Updating / Deleting
   - Predicate and Sorting
   - Fetched Result Controllers
   - Explore foreign key relationships

Module 10: CloudKit , Notifications & PDFKit

1 Implementing CloudKit Storage
2 Working with Apple Local & Remote Push Notifications
3 Exploring PDFKit to Render PDF Documents
4 Capture pdf page snapshots using PDFKit

Module 11: CoreML

1 Working with CoreML Models
2 Working with Vision Framework
3 Natural Language Processing
4 Introduction to create ML tool

Module 12: TouchId , RxSwift ,Localization & App Submission

1 Adding TouchId Authentication
2 Exploring RxSwift
3 Localization
4 Provisioning Profile , Certificates & Registering Devices.
5 Submitting App in Apple App Store.