

iOS App Development Level 1

Learn the basics of iOS development and Swift programming in this introductory class. Code 4 separate apps, including Hello World, Roll the Dice, Tip Calculator, and Card War, while gaining a solid foundation in Swift syntax and object-oriented programming concepts. No prior programming knowledge is required, making this course a great starting point for anyone interested in iOS app development.

Group classes in NYC and onsite training is available for this course. For more information, email hello@nobledesktop.com or visit: <https://www.nobledesktop.com/classes/ios-app-development-with-swift-level1>



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Course Outline

Week 1

Introduction to Tools of the Course

- XCode
- iOS
- Swift

Hello World App

Roll The Dice App

The Swift Programming Language

- The Swift Playground
- Comments
- The println() function

Variables

- Variables
- Constants
- Data types
- Optionals
- Type inference

Conditional Statements & Operators

- The if statement
- The else statement
- The else if statement

- Comparison operators
- Arithmetic operators
- Logical operators

Strings

- Literals
- Mutable strings
- Comparing strings
- Concatenating strings

Week 2

Tip Calculator App

Functions

- Functions with parameters
- Functions with returned values

Optional Unwrapping

- Forced optional unwrapping
- Implicitly unwrapped optionals
- Optional binding

Loops

- For loops
- While loops
- For in loops
- Iterating over arrays

Creating a Class

- Object-oriented programming
- Objects & classes
- Methods
- Properties

Methods

- Methods with parameters
- Methods with return values

Structs

- Creating a struct
- Accessing a struct

Inheritance

- Creating a subclass
- Method overriding

Extensions

- Extending existing classes
- Using extensions

Protocol & Delegates

- Defining & implementing protocol
- Delegate design pattern
- Implementing & using delegates

Closures

- Defining a closure
- Closures with parameters
- Closures with returned values
- Closures as callbacks

Week 3

ENUMS

Creating & using enumerations

Type Casting

- Type checking
- Type casting
- Downcasting

Tuples

Creating & using tuples

Type aliases

Creating & using type aliases

ARC

- Strong & weak references
- Avoiding strong reference cycles

Card War App

- Importing the images
- Adding the button that draws the cards
- Labeling the deck & each player's score
- Adding constraints to our labels
- Adding a button to restart the game & constraining it
- Adding & constraining the background image