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DEV110-110

APL-DEV110-110 App Development with Swift 4

Durata: 5 gg

Descrizione

From Playgrounds to protocols, discover, explore, and demonstrate how to use the fundamental building blocks of the Swift programming language. This 5-day, hands-on course is designed to teach you the basic concepts of Swift programming, including syntax, logic, structures, functions, and patterns. It also includes detailed explanations of language syntax and coding exercises.

You will also learn how to build and run your first apps on iOS using the Swift programming language. Discover and learn common tools, technologies, interface elements, and design patterns used to build iOS apps. The course includes detailed explanations of iOS technologies, hands-on use of Apple's development tools, and coding exercises in Swift that use common iOS frameworks.

[Note: This course is a combination of APL-DEV100-040 and APL-DEV105-110 taught in the same week]

Objectives:

• Upon completion of the App Development with Swift course, students will:
• Learn how to use Xcode Playgrounds to write Swift code
• Learn common programming patterns used in Swift
• Learn keywords and vocabulary used by the Swift language
• Learn how to build native apps using the iOS SDK
• Learn how to use Xcode and the Simulator
• Learn how to use common navigation patterns and UI controls

A chi è rivolto?

• Software Developers
• Software Architects
• Technology Consultants

Prerequisiti

Getting Started with iOS development videos: Learn about Apple's advanced mobile device hardware, the characteristics of modern apps, the iOS software development kit, Apple developer programs, and Apple's approach to security and distribution.

Basic computer programming concepts: You should be comfortable with basic concepts of computer programming, including variables, strings, logic, and classes. You'll be expected to write code as part of the training.

Contenuti
- Introduction to Swift and Playgrounds

Learn about the origin of Swift and some of its basic syntax

- Constants, Variables, and Data Types

Learn how to define constants for values that don't change and variables for values that do
Learn the data types that are included in Swift and how they can help you write better code

- Operators

Learn how to use logical operators in Swift to check conditions and how to use control flow statements
- Strings

Learn how to create and store text using the String type
You'll learn a variety of String methods that allow you to compare two strings, access specific characters within a string, and insert and remove values
- Functions

Learn how to declare functions with different parameters and return types
- Structures

Learn how to create structures in Swift
- Classes

Learn what makes classes different from structures and when to use classes instead of structures
You'll also learn about inheritance, super-classes, and sub-classes
- Optionals

Learn to use optionals to properly handle situations when data may or may not exist
- Collections

Learn about the various collection types available in Swift and how to choose the appropriate one for your program
- Loops

Learn how to create loops in Swift, control the conditions for looping, and specify when to stop
- Type Casting

Learn why some data can be expressed using only a broader type and how you can test for specific kinds of data before using it
- Guard

Learn to use guard statements to better manage control flow
- Scope

Learn to write nicely structured code that's easy to read. You'll do this by properly scoping your constants and variables
- Enumerations

Learn when enumerations are commonly used, how to define an enumeration, and how to work with enumerations using switch statements
- Protocols

Learn what protocols are, when to use them, and how to write your own. Learn how to enable objects to communicate with each other and how to extend protocols to provide shared functionality across multiple types
- Closures

Learn about closures, how to define them, how to use them as function arguments, and how to use some of the common functions that take closures as arguments

- •Extensions

Learn how to define an extension, as well as how and why to use extensions

- •Interface Builder Basics

Learn how to navigate through Interface Builder, add elements onto the canvas, and interact with those elements in code

- •Displaying Data

Use Interface Builder to create the beginnings of an app, adding labels and images

- •Controls in Action

Use Interface Builder to add buttons, switches, and sliders to a scene. Create actions and outlets, write some basic code, and learn how these tools work together

- •Auto Layout and Stack Views

Learn the fundamentals of Auto Layout for building precisely designed user interfaces

- •Segues and Navigation Controllers

Learn how to use segues to transition from one view controller to another, how to define relationships between view controllers, and how navigation controllers can help you manage scenes that display related or hierarchical content

- •Tab Bar Controllers

Learn how to use tab bar controllers to organize different kinds of information or different modes of operation

- •View Controller Life Cycle

Learn more about the view controller life cycle so you can understand the potential of this important class

- •Building Simple Workflows

ie together the concepts you've learned so far to design simple workflows and familiar navigation hierarchies

- •App Anatomy and Life Cycle

Learn more about the different life cycle states and the delegate hooks for executing logic as the app moves through each state

- •Model View Controller

Learn how to organize files, structures, and classes into a design pattern called Model-View-Controller

- •Table Views

Learn the basics of creating table views in an iOS app

- •Intermediate Table Views

Learn how to customize your table views with custom cells, dynamically insert and remove cells, use static table views to present forms or other nonchanging lists, and allow the user to swipe to delete cells

- •Saving Data

Learn how to persist data using NSCoding, a protocol for saving files to your app's Documents directory

- •System View Controllers

Learn how to incorporate a variety of system view controllers for displaying alerts, sharing content, sending messages, and accessing the camera and photo library on an iOS device

- •Building Complex Input Screens

Learn how to use a combination of static and dynamic table views. Also learn to use controls and views to build custom workflows that put an elegant face on any kind of business information

- •Working with the Web: HTTP and URLSession

Learn the basics of how web data is sent and received, how URLs work, and how to fetch data for use in your app

- •Working with the Web: JSON Serialization

Learn how to read and write basic JSON. Also learn how to convert JSON to and from Swift types and into your

own custom model objects
  •Working with the Web: Concurrency
Learn about the concurrency system in iOS and how to make sure code that updates the user interface is executed in the right place