Objective Domains

Individuals who earn the App Development with Swift Associate certification exemplify knowledge of key computing concepts and a solid foundation in programming with Swift. They'll demonstrate knowledge of the impact of computing and apps on society, economies, and cultures while exploring iOS app development.

Planning, Design and Theory

1.1 Summarize the design cycle
   1.1.1 Brainstorm, plan, prototype, evaluate
1.2 Summarize how sensitive data can be protected and compromised
   1.2.1 Sharing personal and application information
   1.2.2 Security challenges
   1.2.3 Legal, ethical and socioeconomic impacts

Project Navigation

2.1 Differentiate between basic file types
2.2 Recognize the assets available in a project
2.3 Define how assets are used
2.4 Import an asset to a project and use it correctly
2.5 Select the appropriate actions to hide or show different areas of the user interface

Interface Builder/iOS

3.1 Given a scenario, select the appropriate object(s) on the storyboard or the Document Outline
3.2 Use the Attributes inspector to non-programmatically modify the properties of objects and/or a view
3.3 Connect UIKit objects on storyboard to a Swift file
   3.3.1 Differentiate between an IBOutlet and an IBAction
   3.3.2 Determine when to connect an object as an IBOutlet or an IBAction
3.4 Programmatically modify the properties of objects and/or a view
App Development with Swift

Associate

Swift Language Usage

4.1 Write, call and/or evaluate the execution of functions
   4.1.1 Evaluate the use of argument labels, parameters and returns
4.2 Calculate the results when using various operators
4.3 Create and evaluate structures
   4.3.1 Declare the properties of a structure
   4.3.2 Initialize the properties of a structure
   4.3.3 Define methods
   4.3.4 Create an instance of a structure
   4.3.5 Use an instance of a structure
4.4 Create and manipulate arrays
   4.4.1 Declare and/or initialize an array with values
   4.4.2 Identify and/or modify an array element using its index
   4.4.3 Use and/or evaluate array properties and/or methods
4.5 Demonstrate how to control the flow of execution
   4.5.1 Create, analyze and predict loop structures and their results
   4.5.2 Create and interpret the outcome of conditional statements
4.6 Create, use and/or compare custom enumerations
4.7 Declare and/or evaluate constants and variables of different data types
   4.7.1 Differentiate between constants and variables
   4.7.2 Apply type inference
   4.7.3 Use explicit typing
4.8 Use the appropriate naming conventions
   4.8.1 Use appropriate camel casing
   4.8.2 Apply Swift identifier rules

Debugging

5.1 Use the Connections inspector to evaluate whether a connection error has occurred
5.2 Given a connection error scenario, determine a solution
5.3 Differentiate between syntax and run-time errors when building and running an app
5.4 Interpret console error messages
5.5 Recognize the purpose of breakpoints