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# SWIFTUI training: iOS application creation

2 days (14 hours)

## Presentation

SwiftUI is a framework that complements the Swift language, enabling the construction of graphical user interfaces based on the declarative programming paradigm.

SwiftUI brings simplicity to the developer's code, and will bring you other additional benefits.

With this SwiftUI training course, your team will learn more about all the framework's features. They'll be able to write new apps with SwiftUI, and launch its adoption in UIKit-based codebases.

Learning this framework will enable you to build apps, architect them correctly to create robust data flows and state management for your business. For more information, take a look at our article comparing two technologies: [SwiftUI vs UIKit](#).

For this training, we use [Xcode 16](#).

## Objectives

- Learn the fundamentals of SwiftUI development
- Implementing architectural approaches
- Getting to know SwiftUI's APIs and views

## Target audience

- **Developer**
- iOS developer
- Swift Developer

# Prerequisites

- Knowledge of the basics of Swift: it is preferable to have taken our [SWIFT training course](#) beforehand.
- [Test My Knowledge](#)

# Software requirements

A Mac with Xcode 14 installed.

# SwiftUI training program

## Introduction

- SwiftUI introduction
- Xcode installation
  - Xcode introduction
  - ContentView
  - Preview

## Layout

- Overview
- Vertical Stack
- Stacks and Spacers
- UIImageView and background
- UIButton
- UILabel

## View SwiftUI

- Introduction
- Text
- Responsive Screens
- The buttons
- Reusable views
- Navigation
- The models
- The sections
- Introducing the interactive view
  - TextField
  - SecureField
  - Toggle
  - Stepper
  - Slider

## List and Form

- Introduction to the various SwiftUI lists
- List Statique
- Dynamic List (Range,Object)
- List ForEach
- List with Sections
- The different functions available with List
- Introduction FORM
- [PRACTICE] List creation

## DataFlow

- Dataflow definition
- Property
- @State
- @Binding
- @Environment

## Landmark

- Introduction Landmark
- Landmark SwiftUI
- Landmark Model
- Map and Image

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.