

ONE PAGE SUMMARY

IT & Software > iOS Development > SwiftUI

# Introduction to SwiftUI

SwiftUI simplifies iOS app development with declarative syntax.

DEFINITION

SwiftUI is a modern framework for building user interfaces across Apple platforms using Swift. It allows developers to create apps with less code and more visual clarity.

KEY CONCEPTS

**Declarative Syntax**

SwiftUI uses a declarative approach, meaning you describe what the UI should look like, and the framework handles the rest.

**Views and Modifiers**

In SwiftUI, you create views and customize them using modifiers that change their appearance or behavior.

**Cross-Platform**

SwiftUI enables developers to create apps for iOS, macOS, watchOS, and tvOS using a single codebase.

**State Management**

SwiftUI manages the state of your app automatically, updating the UI when the underlying data changes.

**Previews**

SwiftUI provides a live preview feature, allowing developers to see changes in real-time as they code.

EXAMPLES

→ `Text('Hello, World!')`  
→ `Button(action: { print('Tapped!') }) {  
 Text('Tap Me')  
}`  
→ `List {  
 ForEach(items) { item in  
 Text(item.name)  
 }  
}`

MEMORY TIPS

- ★ Think 'What You See Is What You Get' for declarative syntax.
- ★ Remember 'State = UI' to connect state management with UI updates.
- ★ Use 'Preview = Instant Feedback' to recall the preview feature.

COMMON MISTAKES

- ✗ Forgetting to use `@State` for state variables.
- ✗ Neglecting to update the UI after changing data.
- ✗ Overcomplicating views instead of using simple modifiers.

QUICK RECAP

SwiftUI is a powerful framework for building user interfaces with a declarative style. It simplifies state management and offers real-time previews, making development faster and more intuitive.