iOS TODO App – Senior Interview Prep Sheet

# PROJECT OVERVIEW QUESTIONS

* Q1: What architecture did you use in your TODO app and why?

A: MVVM (Model-View-ViewModel) to separate concerns and improve testability, modularity, and maintainability.

* Q2: Why UIKit over SwiftUI?

A: UIKit provides fine-grained control and compatibility with legacy systems.

* Q3: What type of data binding did you use in MVVM?

A: Closure-based callback (`onTodosUpdated`) to keep the view updated.

# FUNCTIONAL DESIGN QUESTIONS

* Q4: How did you implement real-time CRUD operations?

A: By using an in-memory array and a callback to trigger view updates instantly.

* Q5: Why did you choose `struct` for `TodoItem`?

A: Value semantics prevent unintended side effects and suit simple data modeling.

# TESTING QUESTIONS

* Q6: How did you test your ViewModel logic?

A: Using XCTest to verify add, update, delete logic, and callbacks.

* Q7: How would you test the UI layer?

A: With XCUITest and optionally snapshot testing for visual validation.

# SCALABILITY & IMPROVEMENTS

* Q8: What improvements would you make to this TODO app?

A: Add persistence, improve binding, use diffable data source, enhance accessibility, modularize, and prepare for team scalability.

# SYSTEM DESIGN / LEADERSHIP-LEVEL QUESTIONS

* Q9: How would you architect this app to support team collaboration?

A: Modularize features and use separate targets or frameworks.

* Q10: How would you make this app accessible and maintainable at scale?

A: Use CI/CD, SwiftLint, documentation, and dependency injection for testability.

# KEYWORDS TO MENTION IN INTERVIEW

MVVM, UIKit, Closure-based Binding, Value Types, XCTest, XCUITest, Modularization, Real-time Sync, Accessibility, SPM, Reusable Components