Homework 2: Packing List App

Due: Tuesday, September 16, 2025, 7:00 PM

Submit via the class TEAMS site.

Grading: 30 points total + up to 5 points Extra Credit.

Goal

In this assignment, you will build a Packing List app. The app lets users add items, mark them as packed/unpacked, and delete items. This mirrors common mobile UX patterns (checklists, swipe actions) and builds upon what you learned in class.

You will practice:
- Modeling persistent data with SwiftData (@Model).
- Using @Query to observe a collection.
- Building list interactions: add, toggle, delete.
- Using swipe actions and conditional toolbars.
- Designing an empty state with a friendly placeholder and 'seed essentials' option.
- Writing clean, maintainable code (separation of concerns, clear naming).

Tasks (30 Points Total)

Part A. Project Setup (1 pts)

Create a new iOS App project (SwiftUI + SwiftData). Name it PackingList.

Part B. Data Model (2 pts)

Implement PackingItem with properties: title: String, isPacked: Bool (default false). Add an initializer that trims whitespace.

Part C. Adding Items (5 pts)

Provide a text field at the bottom of the screen for new items. Save button creates a new item and clears the field. Prevent empty titles.

Part D. Marking Packed/Unpacked (5 pts)

Toggle isPacked with a leading swipe action or a tap gesture. Show packed items with checkmark, italic text, and strikethrough.

Part E. Deleting Items (5 pts)

Implement trailing swipe-to-delete with animation.

Part F. Empty State & Essentials (6 pts)

Show a placeholder ('Empty Suitcase') when the list is empty. Add a button to insert a starter set (e.g., passport, charger, toothbrush).

Part G. User Experience (3 pts)

Navigation title: Packing List. Reasonable text styles and sizes

Part H. Code Quality (3 pts)

Organize files into Models, ViewModels, and Views. Use descriptive names and small functions. Add comments where logic may not be obvious.

Extra Credit (Optional, +5 pts max)

Choose one (or both, still max +5):
- (+5) Add quantities with a Stepper or +/- buttons per item.

Deliverables

- A working Xcode project that compiles and runs in the iOS simulator.
- Submit the complete zipped folder, named according to the rules described in the homework section on MS Teams.
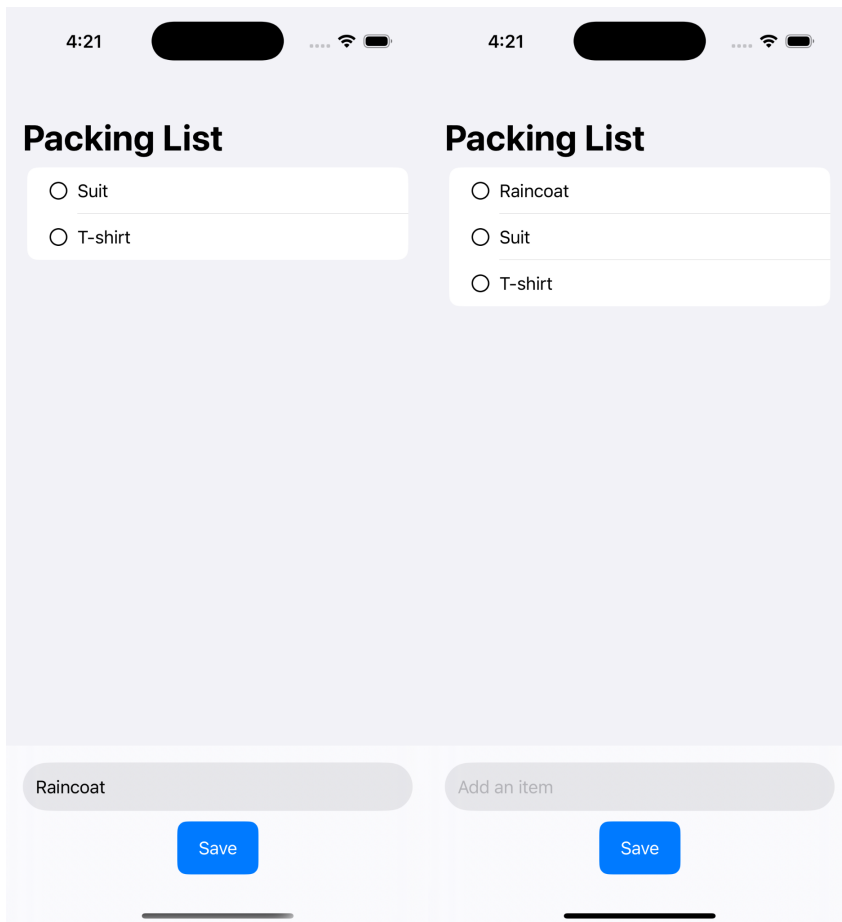
Grading Rubric

Task	Points
Part A. Project Setup	1
Part B. Data Model	2
Part C. Adding Items	5
Part D. Marking Packed/Unpacked	5
Part E. Deleting Items	5
Part F. Empty State & Essentials	6

Part G. User Experience	3
Part H. Code Quality	3
Total	30
Extra Credit	+5

Expected Behavior (Snapshots)

Here are image sequences showing expected UI behavior:

Enter Item

Mark Completed (Packed)

Packing List

- ○ Suit
- ○ T-shirt
- ✓ ○ Toothbrush

Add an item

Save

Packing List

- ○ Suit
- ○ T-shirt
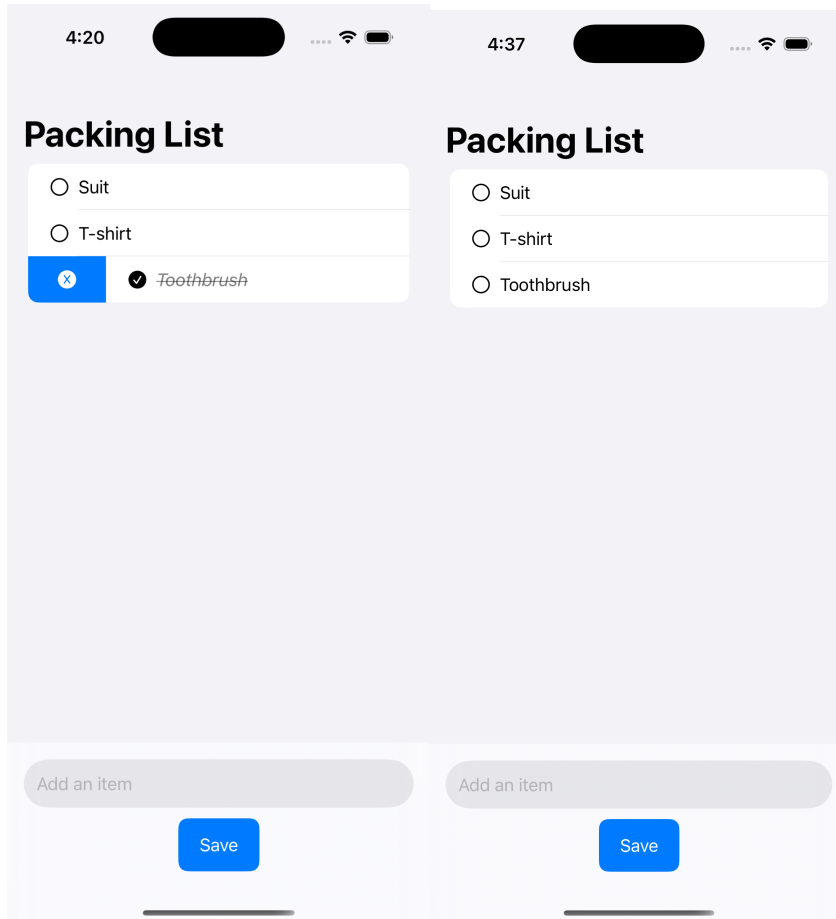- ● *Toothbrush*

Add an item

Save

Mark Unpacked

Delete Item
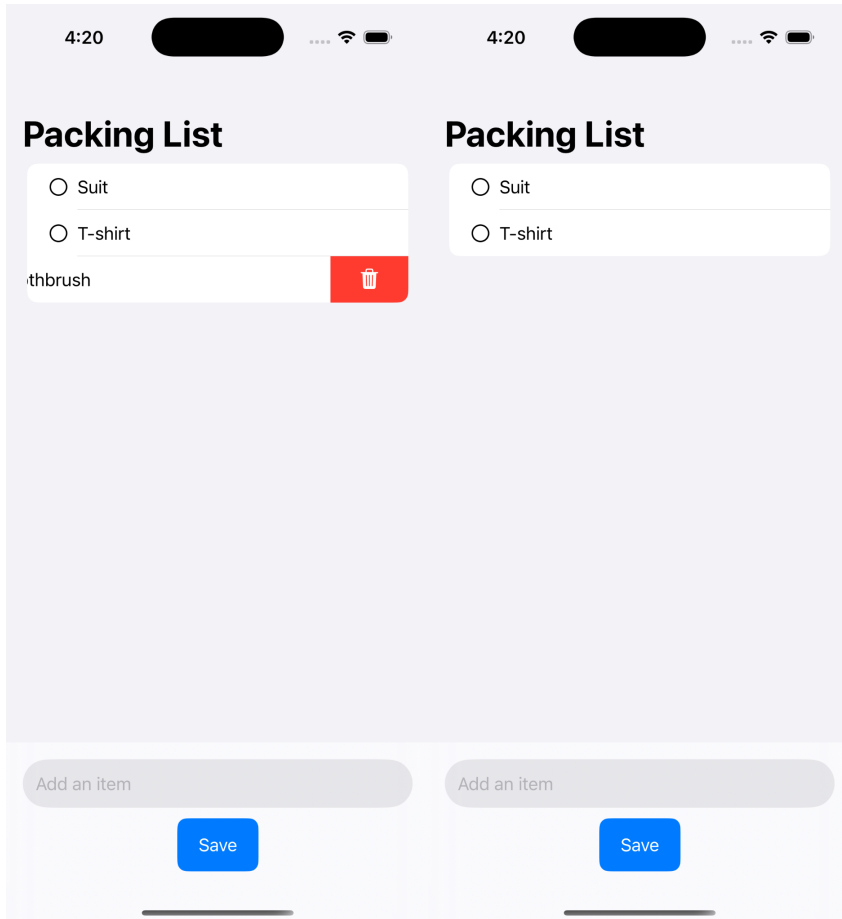
Empty List / Essentials List