

Ubiquitous Computing — Fall 2025

Homework 1: Campus Pantry

Due: Tuesday, September 9, 2025, 7:00 PM

Submit via the class TEAMS site.

Grading: 30 points total.

Overview

Build a small SwiftUI app showing two personal pantries (John and Jane). Students swipe between people, browse items with left/right arrows, and can open a short info sheet. Keep the design consistent with the reference build: gradient background, oval header with a clear title, a simple item card, and a person-themed Randomize button.

Target Platform

- iOS 18 (preferred). Deployment target \geq iOS 16.0 is fine.

Screens & Interactions

- HomeView — page-style swipe (TabView) between John and Jane; gradient background; oval header with a large white title.
- PantryDetailView — large SF Symbol in a card, item label, left/right arrows, center index text (e.g., “1 of 5”), and a Randomize button.
- Info sheet — opens from the “i” button; title row + one paragraph description; medium/large detents.

Design Requirements

- Color tokens in Assets.xcassets (light/dark): GradientTop, GradientBottom, Surface, SurfaceAlt, AccentPrimary (John), AccentSecondary (Jane), TextPrimary, TextSecondary.
- Background: vertical gradient using GradientTop \rightarrow GradientBottom.
- Header: rounded oval patch at the top with a solid white title (“John’s Pantry” / “Jane’s Pantry”).
- Item card: Surface background, soft shadow, symbol tinted by the person’s accent color.
- Controls: left/right chevrons; center index label in white for legibility.
- Randomize button: filled and tinted by the active person’s accent.

Data Model

- enum Person: .john, .jane with displayName, info (short blurb), and items.
- struct PantryItem: Identifiable with symbol (SF Symbol) and label.
- Example symbols include: cart.fill, takeoutbag.and.cup.and.straw.fill, cup.and.saucer.fill, fork.knife, drop.fill.

Implementation Notes

- Use TabView with .page style and index dots.
- Use a top safe-area inset to draw the oval header strip and place the title.
- The info sheet can use .presentationDetents([.medium, .large]). If you target < iOS 16.4, omit .presentationBackground.

Deliverables

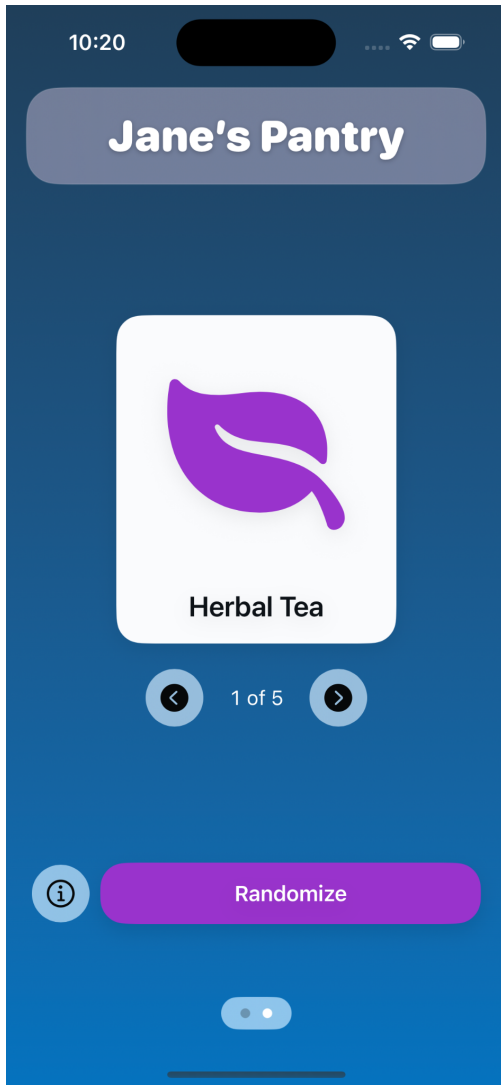
- An Xcode project that builds and runs.
- Include Assets.xcassets with the named colors above.
- Two screenshots (HomeView for each person) and one info-sheet screenshot per person.

Grading Rubric (30 pts)

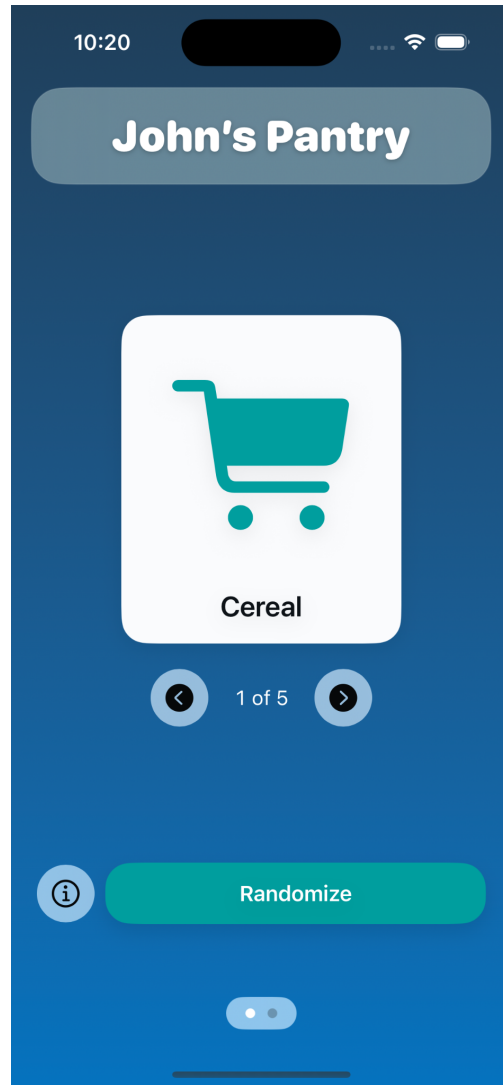
Category	Points
Visual polish & consistency (gradient, oval header, colors)	10
HomeView paging & title (swipe, dots, clear title)	8
PantryDetailView (card, arrows, readable index)	6
Info sheet (title row + description, detents)	6

Example Screens

Use these as a visual reference. Your layout does not need to be pixel-perfect, but should follow the same structure and theming.

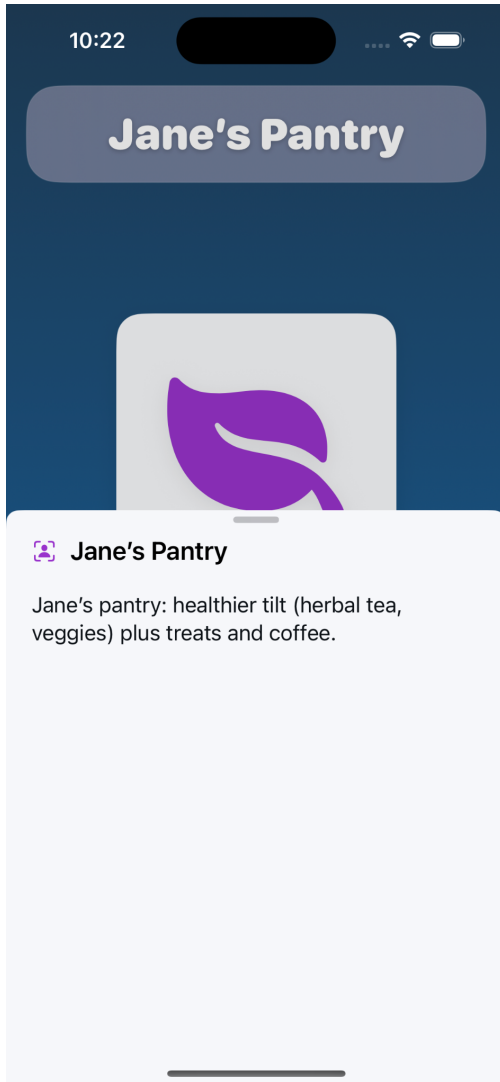


Jane's Pantry — app screen

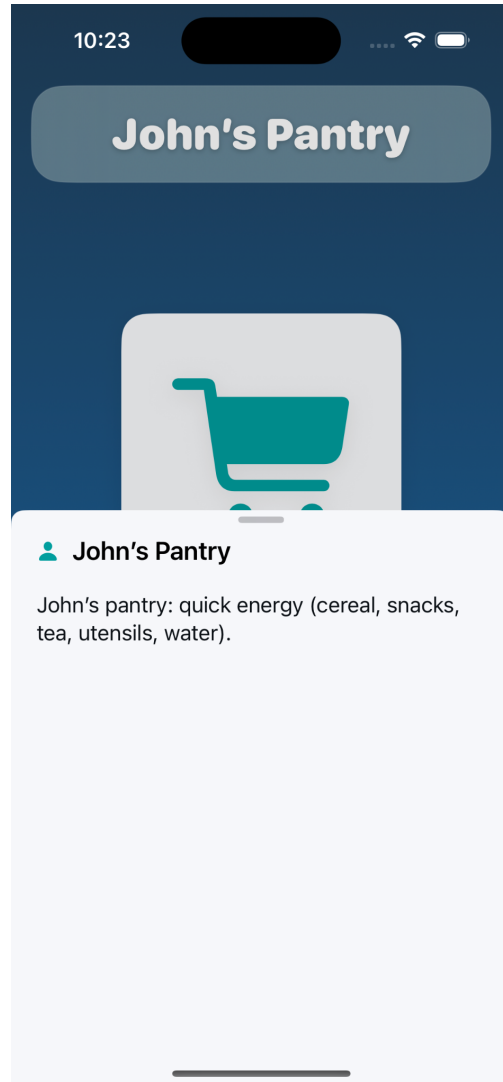


John's Pantry — app screen

Info Sheet Screens



Jane's Pantry — info sheet



John's Pantry — info sheet