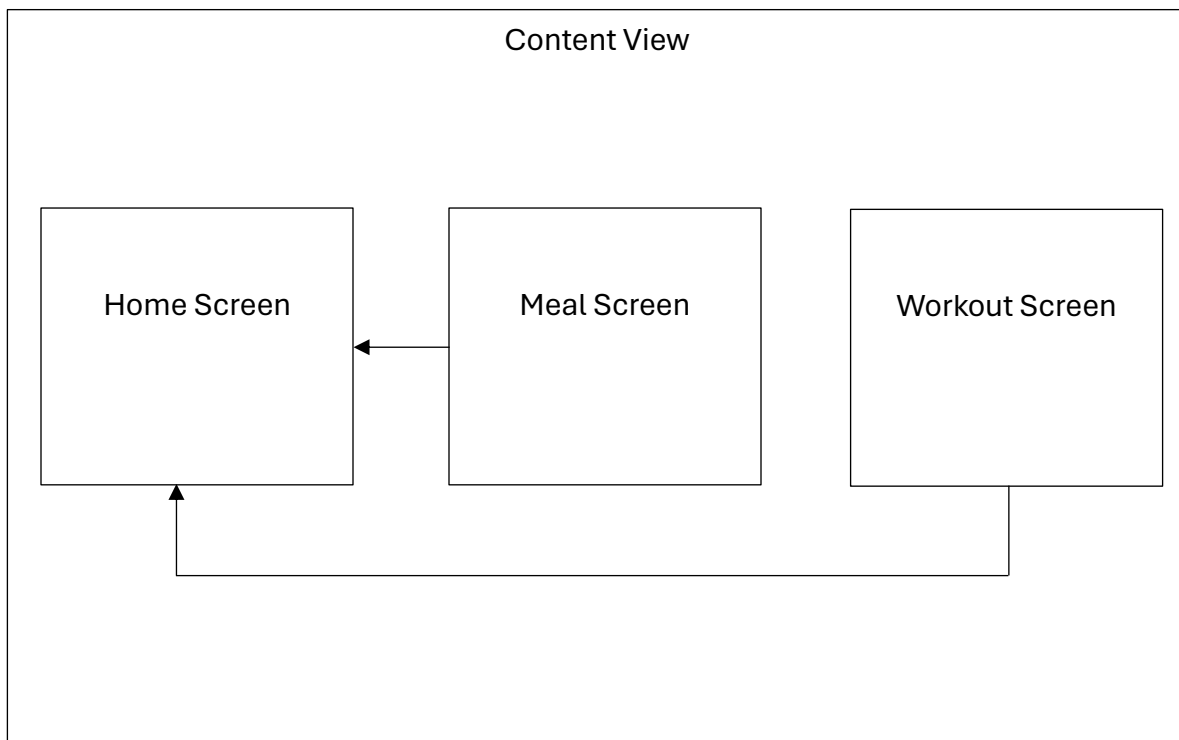


HW 3

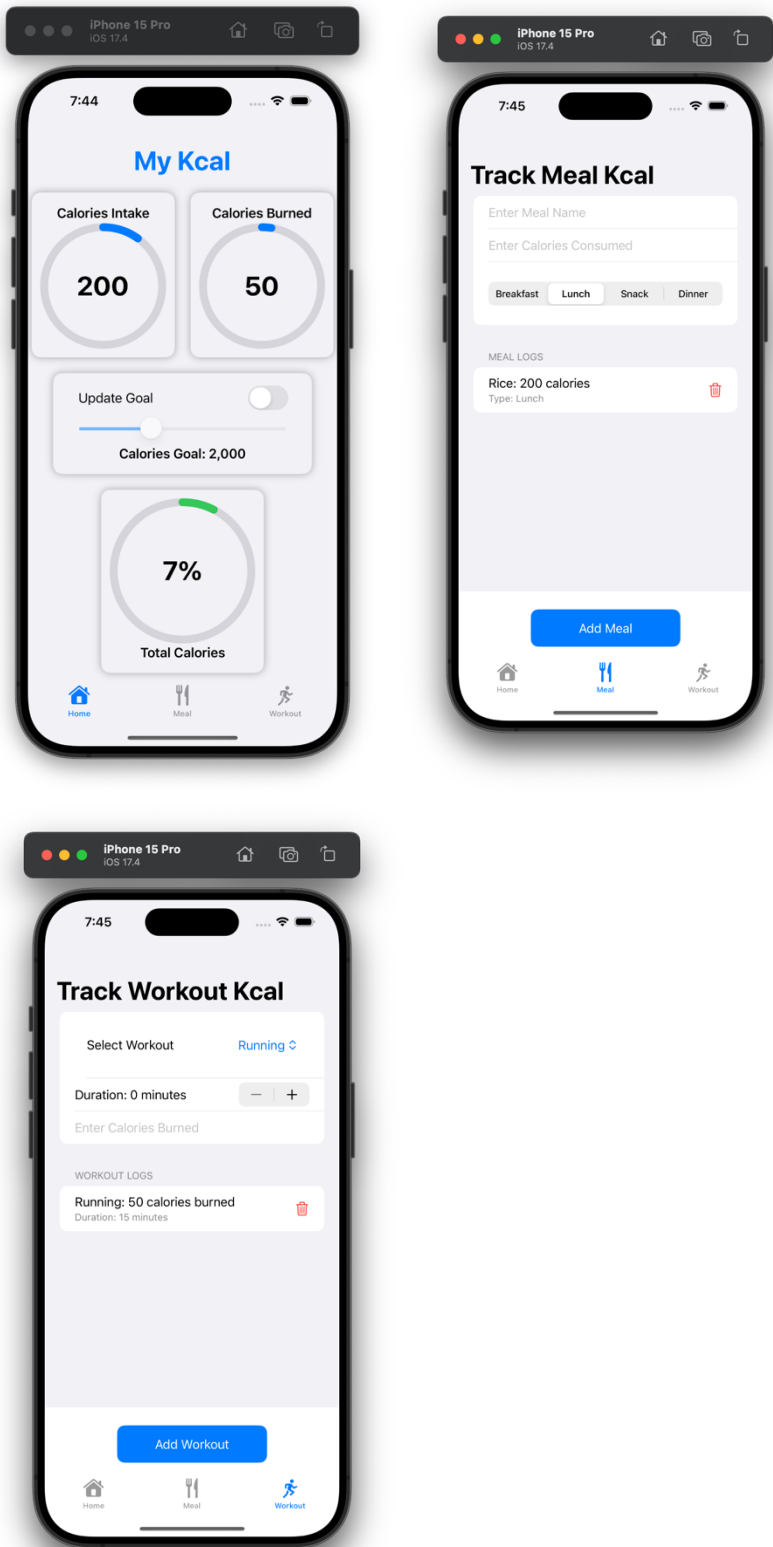
1. Software design and key components.

- Xcode 15.3 with swift version 5.10 and iOS version 17.4 has been used to create the project.
- This is “My Kcal” Calories Tracker SwiftUI IOS application where users can log and track their daily calories intake and calories burned. In this application users can log meals and workouts, monitor total calories progress to meet the desired calorie goal.
- The "Home Screen" displays calories intake total, calories burned total, an option to set calorie goal using a slider which can be enabled by a toggle button and a total calories progress to meet the set goal. Here the "Total Calories" is calculated as "Total Calories Intake - Total Calories Burned" and then converted into percentage format.
- The “Meal Screen” allows user to log meal names with calorie counts and type of meal, also displays individual meal logs inserted by the user in form of list which also has a delete option. Once the “Add Meal” is clicked a success alert pops-up.
- The “Workout Screen” allows user to log type of workout from a picker menu with their duration using a stepper and calorie counts, also displays individual workout logs inserted by the user in form of list which also has a delete option. Once the “Add Workout” is clicked a success alert pops-up.

Component Diagram:



Application UI:



2. Measures taken to avoid cyclic strong references.

To avoid strong cyclic references, I have used `@Binding` property wrapper wherever necessary. For example, `@Binding var Calories_Intake: Double` in Home Screen. I have also implemented `@state` property to manage view-specific cyclic references. For example, `@State private var Calories_Consumed: String = " "` in Meal Screen. To avoid strong references in closures implementation of `".self"` has been done in places like buttons.