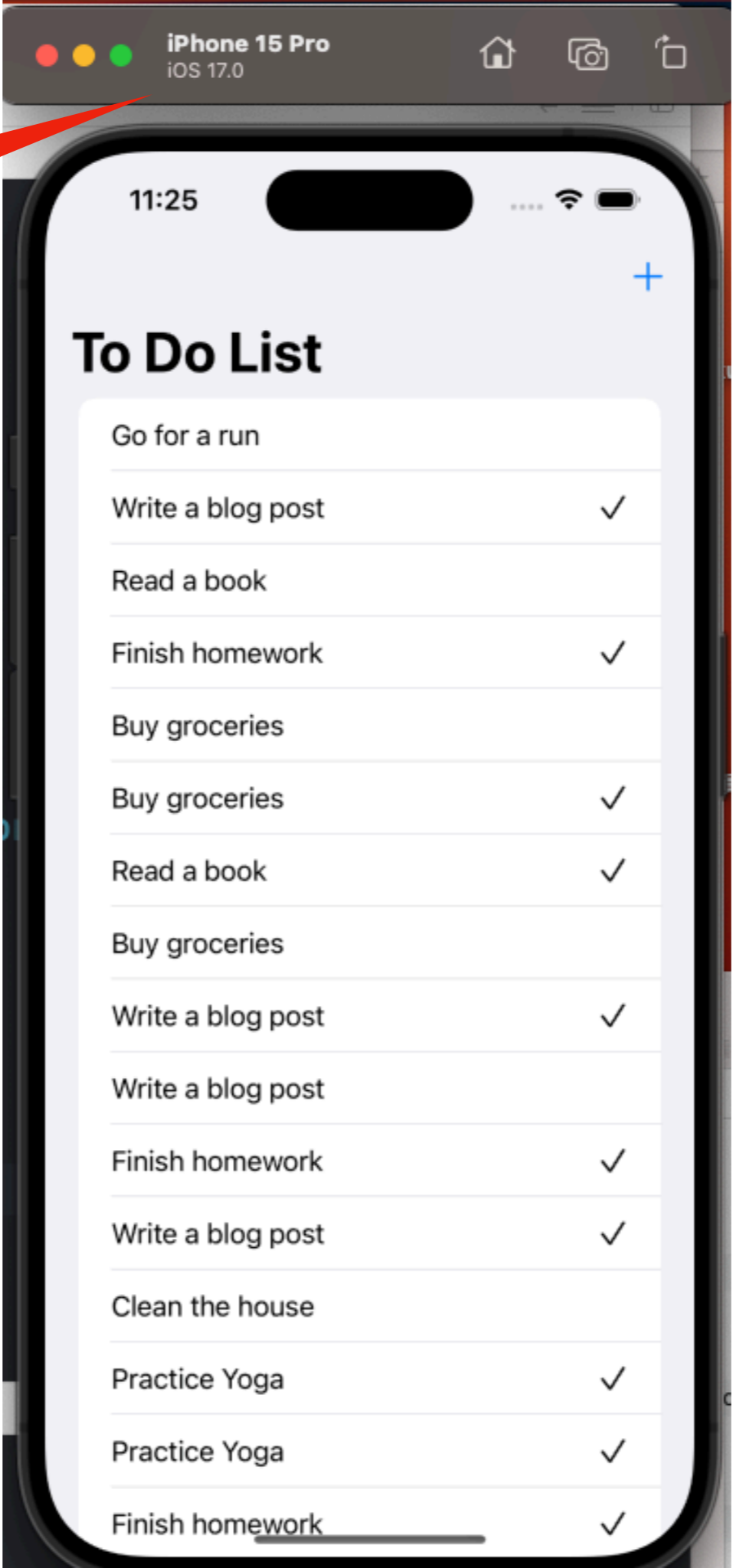


SWIFTDATA

<https://github.com/AprilXMoon/Todolist>

iOS 17.0



SwiftData

Xcode
15.0

The image shows a screenshot of the Xcode 15.0 IDE. The main editor displays the Swift code for `ContentView.swift`. The code includes imports for `SwiftUI` and `SwiftData`, and defines a `ContentView` struct that inherits from `View`. A red rectangular box highlights the following code lines:

```
13 @Environment(\.modelContext) private var modelContext
14
15 @Query var todoItems: [ToDoItem]
```

The rest of the code in the editor is as follows:

```
1 //
2 // ContentView.swift
3 // TODOList
4 //
5 // Created by april on 2023/
6 //
7
8 import SwiftUI
9 import SwiftData
10
11 struct ContentView: View {
12
13     @Environment(\.modelContext) private var modelContext
14
15     @Query var todoItems: [ToDoItem]
16
17     var body: some View {
18         NavigationStack {
19             List {
20                 ForEach(todoItems) { todoItem in
21                     HStack {
```

On the right side of the editor, there is a window titled "Xcode" showing the version "Version 15.0 (15A240d)". It includes the Xcode logo (a hammer on a blue square) and copyright information: "Copyright © 2023 Apple Inc. All rights reserved. Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries." There are two buttons: "Acknowledgments" and "License Agreement".

```
5 // Created by ap111 on 2023/10/5.
6 //
7
8 import SwiftUI
9 import SwiftData
10
11 struct ContentView: View {
12
13     @Environment(\.modelContext) private var modelContext
14
15     @Query var todoItems: [ToDoItem]
16
17     var body: some View {
18         NavigationStack {
19             List {...}
20             .navigationTitle("To Do List")
21             .toolbar {...}
22         }
23     }
24
25     func generateRandomToDoItem() -> ToDoItem {...}
26 }
27
28 #Preview {
29     ContentView()
30 }
31
32
```

```
19 List {
20     forEach(todoItems) { todoItem in
21         HStack {
22             Text(todoItem.name)
23
24             Spacer()
25
26             if todoItem.isComplete {
27                 Image(systemName: "checkmark")
28             }
29         }
30         .onTapGesture {
31             todoItem.isComplete = true
32         }
33     }
34     .onDelete(perform: { indexSet in
35         for index in indexSet {
36             let itemToDelete = todoItems[index]
37             modelContext.delete(itemToDelete)
38         }
39     })
40 }
```

```
42     .toolbar {
43         Button {
44             modelContext.insert(generateRandomTodoItem())
45         } label: {
46             Image(systemName: "plus")
47         }
48     }
49 }
```

```
53 func generateRandomTodoItem() -> TodoItem {
54
55     let tasks = [ "Buy groceries", "Finish homework", "Go for a run",
                    "Practice Yoga", "Read a book", "Write a blog post", "Clean the
                    house", "Walk the dog", "Attend a meeting" ]
56
57     let randomIndex = Int.random(in: 0..
```

```
1 //
2 //  TodoItem.swift
3 //  TodoList
4 //
5 //  Created by april on 2023/10/5.
6 //
7
8 import Foundation
9 import SwiftData
10
11 @Model
12 class TodoItem: Identifiable {
13     var id: UUID
14     var name: String
15     var isComplete: Bool
16
17     init(id: UUID = UUID(), name: String, isComplete: Bool) {
18         self.id = id
19         self.name = name
20         self.isComplete = isComplete
21     }
22 }
23
```

```
1 //
2 //  TodoListApp.swift
3 //  TodoList
4 //
5 //  Created by april on 2023/10/5.
6 //
7
8 import SwiftUI
9
10 @main
11 struct TodoListApp: App {
12     var body: some Scene {
13         WindowGroup {
14             ContentView()
15         }
16         .modelContainer(for: ToDoItem.self)
17     }
18 }
19
```