

**Recommended Test Device:** iPhone 13 or any of the latest iPhones.

## References

### 1. Apple Documentation Tutorial

- UIKit view controller lifecycle & navigation:  
<https://developer.apple.com/documentation/uikit/uiviewcontroller>

### 2. Firebase Tutorial

- Firestore Swift Codable support:  
<https://firebase.google.com/docs/firestore/quickstart>

### 3. Week 9 - iOS Lecture

- Camera Feature:  
[https://www.youtube.com/watch?v=8yy\\_MtZkNK0&t=211s](https://www.youtube.com/watch?v=8yy_MtZkNK0&t=211s)

### 4. Charts Library Tutorial

- Official Charts usage guide:  
<https://github.com/danielgindi/Charts/blob/master/README.md>

### 5. StackOverflow

- “Document path cannot be empty” Firestore error threads  
MFMessageComposeViewController usage and fallback  
[swift - iOS Firestore 'Document path cannot be empty' - Stack Overflow](#)

### 6. ChatGPT Assistance

- **Conversation link:** <https://chatgpt.com/share/682b31f4-1038-8011-b130-3905573675ca>
- **What I have asked:**
  - I. We have to create an iOS version of that app using Swift in Xcode,
  - II. Let's create Teams - List Players Page. A list of players for both teams is shown, supporting a variable number of players,
  - III. Connect it with the firestore database,
  - IV. The user can select the match first and based on that match both of the Teams and their players will be displayed.
  - V. It's updating in the database but I have to re run the app to see the updated data
  - VI. Should I keep unwindFromDetail in DetailViewController?

VII. In XCode I'm using main storyboard and cocoa touch class. Give me the codes according to that.

### App “Activities” (View Controllers)

View Controller	Responsibility & Navigation
<b>MatchUITableViewController</b>	List of all upcoming/ongoing matches. “Create Match” alert; cells segue to DetailViewController.
<b>DetailViewController</b>	View/edit match metadata & status; segues to TeamMembersViewController.
<b>TeamMembersViewController</b>	List players of a team; “Add Player” pushes AddPlayerViewController.
<b>AddPlayerViewController</b>	Form for name/position/photo; uploads to Firestore under selected team.
<b>RecordActionsViewController</b>	Live-match screen: start/stop timer, record actions (Goal, Foul, Penalty), worm chart, “Leaderboard” push.
<b>LeaderboardViewController</b>	Ranks top scorers & foul-makers (with G/Min & F/Min), shows win %, highest/average score, highest-actioned team.
<b>MatchHistoryViewController</b>	List of past matches; swipe-to-delete; “View Details” pushes MatchDetailsViewController; “Worm Graph” pushes WormGraphViewController.
<b>MatchDetailsViewController</b>	Full breakdown of a single match: Goals vs Other Actions in two sections. “View Team Goals” pushes TeamGoalsViewController.
<b>TeamGoalsViewController</b>	Aggregated goal counts per player for both teams side-by-side.
<b>StatisticsViewController</b>	Compare two selected teams (action counts per type) and two players, showing side-by-side tables.
<b>WormGraphViewController</b>	Full-screen worm graph of score margin over time for a selected historical match.