

FUTURE

# Software Engineer - iOS (Swift)

*Take Home Task*



# Take Home Task | Overview

## Exercise Description

In this project, we've set up a small realistic feature that is similar to what we work on at Future. You should take around 90 minutes on this project, but feel free to go beyond the requirements.

## Problem Statement

Future coaches often look at athletic performance over time for a client as an indication of progress towards a specific goal.

We'd like you to construct a simple app that shows this information about a single client based on their recorded data.

The more glanceable the data is, the better. A table of data could be glanceable, but we are also looking for some additional computation to summarize if the client is making progress on an exercise.

It's up to you how to organize and present this information as long as it meets these requirements.

# Take Home Task | Details

## Project Details

This app should have a way to see a list of “Exercise” models that were completed by the client, and a way to see the historical performance data for each Exercise. The weight, reps, time spent active, or any of the other fields can be good indicators of performance on an ExerciseSetSummary. Regrouping the data by Exercise will be needed. Do not make a list of WorkoutSummaries. Progress can be derived from comparing ExerciseSetSummaries for an Exercise over time, instead of comparing it to the ExerciseSet. It is expected that they do what was scheduled for them.

The final output should be an Xcode project for an app that runs in the iOS simulator, written in Swift using SwiftUI. Don't use any other tools or libraries, as they should not be needed for this project.

We've provided a data set with workout summary data for the client, and the corresponding models and loading functions in Swift so you can get started quickly. To get started, copy the “Code” and “Data” folders into your new Xcode application. Use the WorkoutsController to load in the WorkoutSummaries.

# Take Home Task | Model Info

**Exercise:** An exercise is the general movement that a client can do, such as “Bicep Curls”. This is the primary model that should be used to group the data by on the main screen. There is only one model of each exercise, but note that “left” and “right” sides of an exercise will be their own model.

**ExerciseSet:** This is a specific set of an Exercise, where the coach tells the client to do an exercise with a specific weight, reps, or duration. An example of an ExerciseSet is “Bicep Curls with 35 lbs for 12 reps”. Note that if a set is repeated more than once in a workout, each one will be a unique object even if the weight, reps, and duration are the same.

**ExerciseSetSummary:** This is a summary of what the client *actually did* during the workout. For example, if a client used a different weight or performed an exercise for longer than what the coach assigned, then that data is recored on the ExerciseSetSummary.

**WorkoutSummary:** This model is the recording of what a client did during a workout. There are properties, such as time spent doing the workout, how many calories burned, and their heart rates. A list of ExerciseSetSummary are stored on this model to keep track of the sets that a user completed.

# Take Home Task | Models Image

## Future Workout Data Models with Important Properties



# Next Steps

- Our hiring team will review your Take Home Task Submission (approximately 3 days turnaround time)
- Candidates with satisfactory projects will be invited to review their project and add a feature to their project in a live session with members of the iOS team.
- The final stage of the interview process will be a series of 1:1 interviews with members of the product & engineering team.
- Reference Check
- Offer Extended