

8.0 hours

Project Status Ready for Submission

## Project 2

# Enhancing a Quiz App in iOS

Are you ready to have your project reviewed by a fellow Techdegree student? Before you submit your project, make sure you have double-checked your work, we want you to pass the first time!

If you get your project back and it needs work, you'll have to wait 1 day before you can resubmit your project.

[Submit for Review](#)

- [Instructions](#)
- [How you'll be graded](#)

You are being given a simple true/false quiz app. The app functions correctly, though much of the code could benefit from major refactoring. For instance, the app currently is based on collection types, which should be converted into custom classes or structs. Similarly, the app does not adhere to the Model-View-Controller design pattern as well as it could.

Additionally, you will need to add several of the features described below, some being mandatory, others optional. For a few of the features, you are being asked to step beyond what you have learned in this course and make use of documentation and outside resources. That said, provided you find the correct resources, you should be able to work through the implementation. Remember, just as important as practicing the specifics of the syntax you've learned is getting comfortable with the idea of venturing into the unknown to find and use the right tools for the job.

It is worth noting that while we have provided a final question set and UI screenshots, we encourage you to choose a subject area that interests you (movies, sports, history, technology, etc...) and create your own question set and background imagery/UI to match. This is not a requirement for the project, but will almost certainly make it a more enjoyable experience and better portfolio piece.

## Before you start

To prepare for this project you'll need to make sure you complete and understand these steps.

[6 steps](#)

- **Have an active Github account, with a repository for this project**
- **Be sure you've watched the Enhance a Quiz App Instruction Video, linked in Project Resources.**
- **Read all instructions carefully, we suggest twice, at least.**
- **Read the grading rubric carefully (Next to the "Instructions" tab).**
- **Download the starter app, final mockups and final question set by clicking the download files link on this page.**
- **You'll certainly need your Mac to complete the project, but you may want to begin by sketching out your ideas/code with a pencil and paper.**

# Project Instructions

To complete this project, follow the instructions below. If you get stuck, ask a question in the community.

## [8 steps](#)

- **The starter files contain a Storyboard scene that is simulated to a 4.7 inch iPhone without any constraints to position elements. If you run the app in the simulator for a 5.5 inch iPhone, the layout looks fine but it breaks on any other device size. Convert the Storyboard back to a universal scene and add constraints to maintain the layout such all UI elements are sized and spaced appropriately for all iPhones of screen sizes 4.7 and 5.5. inches.**
- **Refactor the existing code such that individual questions are modeled using a class or struct**
- **Ensure that code adheres to the MVC pattern. Please place your new custom data structure for questions in a new Swift file.**
- **Enhance the quiz so it can accommodate four answer choices for each question, as shown in the mockups and sample question set.**
- **Add functionality such that during each game, questions are chosen at random, though no question will be repeated within a single game.**
- **Before you submit your project for review, make sure you can check off all of the items on the [Student Project Submission Checklist](#). The checklist is designed to help you make sure you've met the grading requirements and that your project is complete and ready to be submitted!**
- **Don't forget to revisit the courses you've completed as needed and never hesitate to reach out to the Treehouse Community.**
- **If you're having trouble with this project, make sure you take a look at this great study guide:**

## [Project 2 Study Guide](#)

## Extra Credit

To get an "exceeds" rating, you can expand on the project in the following ways:

## [5 steps](#)

- **NOTE:** In order to get an overall Exceed grade for the project, you must get an Exceed in ALL of the items where an Exceed can be achieved.

Many of the below features can be adapted from code which already exists in the starter project.

- **Implement a feature so that the app can neatly display a mix of 3-option questions as well as 4-option questions. Inactive buttons should be spaced or resized appropriately, not simply hidden, disabled, or marked as unused (e.g. with the string 'N/A'). You need to implement this feature using only one view controller.**
- **Implement a way to appropriately display the correct answer, when a player answers incorrectly.**
- **Modify the app to be in "lightning" mode where users only have 15 seconds to select an answer for each question set. Display the number of correct answers at the end of the quiz.**

- **Add two sound effects, one for correct answers and one for incorrect. You may also add sounds at the end of the game, or wherever else you see fit. (Hint: you can base your solution on code already found in the starter app.)**
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**NOTE:**

- To get an "Exceeds Expectations" grade for this project, you'll need to complete **each** of the items in this section. See the rubric in the "**How You'll Be Graded**" tab above for details on how you'll be graded.
  - If you're shooting for the "Exceeds Expectations" grade, it is recommended that you mention so in your submission notes.
  - Passing grades are final. If you try for the "Exceeds Expectations" grade, but miss an item and receive a "Meets Expectations" grade, you won't get a second chance. Exceptions can be made for items that have been misgraded in review.
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**Download files**

Zip file

**Project Resources**

[Instruction](#)

[Enhance a Quiz App Instruction Video](#)

[File Download](#)

[Final Mockups](#)

[File Download](#)

[Sample Quiz Questions](#)

[Link](#)

[System Sound Services Reference](#)

[Link](#)

[Auto-Layout Documentation](#)

**Need Help?**

Have questions about this project? Start a discussion with the community and Treehouse staff.

[Get Help](#)