

Music Scheduling App

Software Requirements Specification (SRS)

SC 4850

Professor Perry

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Table of Contents

Table of Contents	2
Introduction	3
Overview	3
Project Goals	3
Definitions and Acronyms	3
Assumptions	4
Requirements	4
1. A login page and registration page	4
2. Professor Landing Pages	4
3. Student Landing Pages	5
4. Scaling Tempo Algorithm	5
5. Exercise Progress Tracker	5
6. Video Recording	5
7. Calendar	5

Introduction

Overview

Studio Buddy is an Android and iOS compatible mobile app developed by Kennesaw State University students in Fall 2022. Currently, the app allows for music teachers to collaborate with their students by assigning individual and group practice plans, as well as providing resources to assist in music practice. While the app is completed and functional as is, our goal is to expand the functionality of the app to make it a viable alternative to the existing GOLD Method practice app. Some of these expanded functionalities include a built-in metronome and algorithm to increase tempo over time, Google Drive and Dropbox compatibility, video uploading with comments, and a modifiable student and instructor calendar. The project will be created using React Native, JavaScript, and Firestore as before. Our team will communicate and meet through Discord and Microsoft Teams, and the project will be managed using a shared GitHub.

Project Goals

The goal of the project is to create a mobile app that can work on Android and iOS that implements the GOLD Method for music practicing. Current features that are not included within the application that the client wants are: a metronome that follows the GOLD Method, an exercise progress tracker, and possible Google Drive and/or Dropbox compatibility.

Definitions and Acronyms

Cloud Firestore	A flexible, scalable database for mobile, web, and server development from Firebase and Google Cloud.
Gold Method	A way of practicing that has the user start at slower tempos and build up towards the actual tempo.
Professor	The user who will be the owner of Studio Semesters

React Native	An open-source software framework that is used in developing applications for Android and iOS.
Student	The user who will be joining Studio Semesters
User	The active person using the application.

Assumptions

It is assumed that the current app that the prior team worked on is in running condition. We also assumed that the current version of the app is able to run on iOS and Android. It is assumed that the client has a Firebase database installed and can access from their machine. It is assumed that the client has a VPN or works at Kennesaw State University for access to the website.

Requirements

1. A login page and registration page

- 1.1. The login page can allow the user to register an account using an email and password.
 - 1.1.1. Each user will either be a student or professor.
- 1.2. The login page can allow the user to input their email and password to authenticate them.
- 1.3. The login page can allow the user to use a “forgot password” feature.

2. Professor Landing Pages

- 2.1. The professor page will allow the creation of a Studio Semester.
- 2.2. Studio Semester will have a professor landing page.
 - 2.2.1. Studio Semesters have the attributes: Registration Code, Creator.
 - 2.2.2. Studio Semesters contains all registered students and the Creator can view all the students.
 - 2.2.3. Studio Semesters allows the Creator to review a student’s progress.
 - 2.2.4. Studio Semesters allows the Creator to remove students.
 - 2.2.5. Studio Semesters allow the Creator to view uploaded exercises.
- 2.3. Exercises will have a professor landing page.
 - 2.3.1. The Exercises page will allow for the creation of Exercises and the ability to update currently made Exercises.

- 2.3.2. Exercises will have the attributes: Name, Description, Sample Video, Starting Tempo, Goal Tempo, Weekly Repetition, Category (Etude, Fundamentals, Solo Rep.).
- 2.3.3. The Exercises page will allow the professor to add any of the made Exercises to any of their Studio Semester.

3. Student Landing Pages

- 3.1. The student page will allow the student to enter a registration code, the code will make the student enter a Studio Semester.
- 3.2. The student page will allow the student to view their Studio Semesters.
 - 3.2.1. The Studio Semesters page will allow the student to view the professor and other student's contact information within the Studio Semester page.
 - 3.2.2. Studio Semesters will contain exercises for the Student to complete.
 - 3.2.3. Studio Semesters will allow for the organization of the Exercises by type, date, and completion.
- 3.3. Exercises will have a student landing page.
 - 3.3.1. Students will be able to see the attributes of the Exercise.
 - 3.3.2. Students will be able to mark exercises as completed.
 - 3.3.3. The system will keep track of all Exercise progress.

4. Scaling Tempo Algorithm

- 4.1. Within the Exercise on the Student view, it will allow a Student to follow the Gold Method with practicing the Exercise.

5. Exercise Progress Tracker

- 5.1. The tracker will be displayed to students to view their overall progress for the week in completing the assigned Exercises.

6. Video Recording

- 6.1. Students can create a video from the exercises page.
- 6.2. The Professor will be able to view videos made by the Students on an Exercise.
- 6.3. The Professor will be able to comment on each video uploaded.
- 6.4. The Professor will receive a notification when a video has been uploaded and the Student will receive a notification when a comment has been made on their video.

7. Calendar

- 7.1. The Calendar will be displayed to students showing what is due for that week / month