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Team 8

Inception (Written Deliverable)

Client & User:

Our client for this project is a physics teacher named “Ray” at Pantego Christian Academy. He wants a mobile application to be built for him and his students to display songs he has made over the units and topics of physics that he covers. He wants it to be as easy as if students can download his app and a song listing will appear. Students will then be able to choose a song among the listing and when chosen the said song will play and lyrics will appear to follow along with the song. Student will be given choices such as to stop and go back to original listing and to pause songs too. Ray has about 10-11 songs picked out for this application. Most of them coming with cover art and some with visuals that can be presented when displaying the lyrics.

Features:

- App icon has already been chosen for the client.
- The mobile application will be found in the Play store/Appstore.
- The application will have a main menu which will display song listings available with cover art and name of the unit it covers.
- When songs are clicked music will begin to play
- With a separate tab for lyrics to follow along and some animations will appear in the background.
- The application will be able to pause and skip around in the track.
- Lyrics already spoken will appear red or be marked.
- Return button will go back to previous screen.
- Users will have the option to scroll through the listing and choose a song to play next.

Project Vision:

Version 1.0

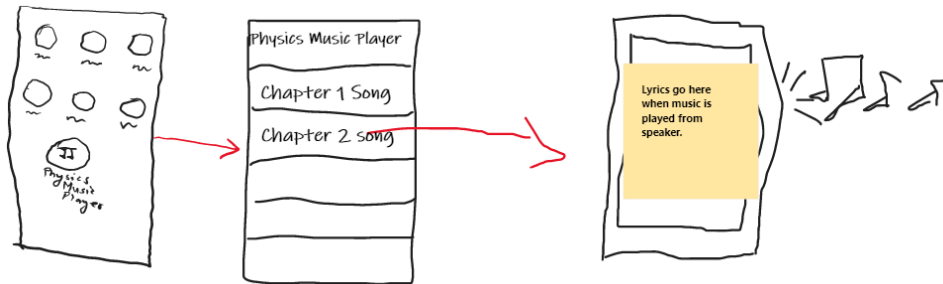
Our vision is to provide an application that can aide our client in their pursuit to bring a new avenue of learning to his students. We will be accomplishing this task using an application that plays preset songs created by our client that contain educational undertones.

Version 1.1

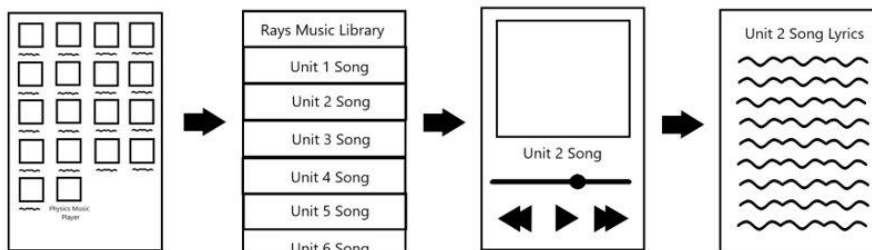
To design a music player application that delivers a dynamic learning experience on traditional physics subjects.

UI Design:

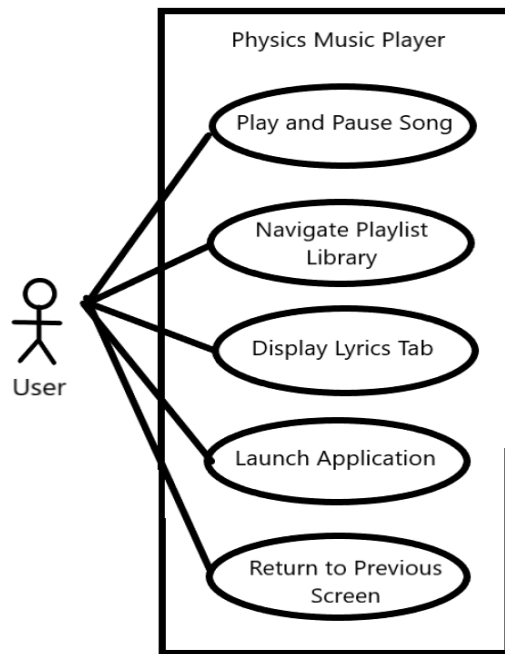
Version 1.0



Version 1.1



Use Case Model:



Risks:

Business Risks?

Potentially customer could move away, and we could lose his input.

- Ensure that we get customers contact information to secure communication with them even if they move.

Product could be too simple for a semester long project.

- Outline a plan for further work to be contributed to the project to ensure that it is worthy of an entire semesters time.

Songs are not delivered on time from client.

- A dud song will be implemented in the place of what the songs will look like in the application.

Resource Risks?

Our team is not familiar with Android Studio.

- Our team will take time outside of group meeting sessions to familiarize ourselves with android studio.

Javier works part time/ full time.

- Javier can let us know when he is working so that the other group members can plan around his schedule.

Schedule Risks?

Iteration 2 deliverable date conflicts with a midterm exam for Jared

- We can make sure that Jared delivers his part on iteration 2 earlier to give him adequate time to prepare for his exam.

Risk Table:

Risks	Probability (p)	Effect(E)	Risk Exposure(RE)
Customer moves away	0.1	24 hour delay in communication requests with customer	2.4
Product design too simple	0.4	15 hours of work misused	6
Songs/cover art not delivered on time	0.3	24 hour delay in production	7.2
Team unfamiliar with Android Studio	0.7	7 hour delay in development time	4.9
Javier works part time/ full time	0.5	12 hour delay to scheduling team meetings	6
Iteration 2 deliverable date conflicts with a midterm	0.6	24 hour delay in development time	14.4

Competitors:

Overview

Karaoke Apps and YouTube playlist are the competitors to our project.

Karaoke Apps

- The app provides lyrics to a song which has no singer (instrumental).
- The users can sing to the music with the help of the lyrics.
- They provide platform to collaborate with group of people.

Popular Karaoke Apps on Playstore:

- Smule (2008)
- Starmaker (2010)

YouTube Playlist

- All videos available in YouTube through a link.
- The videos have lyrics synced to the music.
- The users can sing following the lyrics in the video.

In-Depth Description of competitors

Karaoke Apps

- Social Media App based around singing
- User profile with the list of people following and people followed.
- News Feed with Karaoke videos. Comment and React features available.
- Ad-based Free Version
- Paid VIP Access for unlimited songs, full songbook access, NO Ads, and Premium Audio Filters
- Solo, Duet, and Group Sessions (VIP Access Required in Smule)

- Age Restriction

YouTube Playlist

- Link Access through a browser or Search videos through the YouTube App.
- Ad in between videos.

How our app differs from competitors?

- Our app will be available for Free and will not have any Ads.
- It will be used for educational purposes only.
- The users for this app are high school students so it will have a simple design.
- We can work closely with the customer (Physics teacher) and incorporate specific essential features into the app.
- A single customer means that the app can be designed as precise as possible.
- The app is more convenient than a website. Our users (high school students) can quickly and easily access the app through the phone than going to a website.
- Safer Content than website or karaoke app.

Software Development Plan

Iteration Plan:

- GUI Development

Tools:

- Android Studio

People:

- Customer: Ray
- Development Team: Jared Kremer, Javier Gonzalez, Ayush Bhandari
- Testers: Ray's Students

Education

- Learning Android studio specific GUI libraries
- Interest in Physics topics mentioned in the application.

GitHub:

<https://github.com/UnclePhil/CSE3311-TEAM-8>

Version: 1.0

References:

Smule – The Social Singing App

- Official Website: <https://www.smule.com/>

Starmaker – Sing Karaoke Songs

- Official Website: <https://www.starmakerstudios.com/#/>
- More info: <https://apps.apple.com/us/app/starmaker-sing-karaoke-songs/id342138881>