



Software Project Management

Lab 2

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Introduction

The topic our group decided to do is Music Hub, which is a music platform for artists to upload their music to and give direct control of the royalties which would eliminate the privacy. We decided on this topic since all of the members are avid music listeners which will be interesting to see what creative ideas we come up with. We would like to build both a web and mobile application for the music platform. Music Hub would be operated similarly to Apple Music and other music platforms that customers are using in today's world. This will give us a better understanding on how bigger music platforms are created.

This report will contain the following:

- The objective of this project
- Measures of success
- Infrastructure of the platform

Objectives

The objectives of Music Hub are to create a platform for artists to have a fair way to share their music and earn money. Cutting out label companies will ensure that the artist themselves will be able to get the most revenue they deserve. This platform will also allow users to listen to a wider range of music, from different artists as well as different genres. With revenue being made from advertisements for free users, it allows users to listen to as many songs as they wish without having to break the bank. With a tier of premium users, who pay a monthly fee, users can unlock an ad-free environment that allows offline listening. The strongest objective is to eliminate privacy, as all the music is hosted right on the platform, and can only be accessed through the application.

Measures of Success

The measure of success for Music Hub is if the project is completed on time and has met all of the responsibilities that needed to be done. It will also depend on if the project is cost efficient and has stayed within the limit given from the CEO of Music Hub. Another big thing which will measure success is dependant on customer satisfaction, both from the user and the artists itself. If artists benefit from the platform, they will continue to share their music on it, as well as possibly give exclusives or early releases. The user is where the revenue is generated from, and so if customers are happy, they will continue to use the platform. This will result in more ads being played which will generate more profit it will also mean that more users upgrade to premium services. A direct metric to measure success is to monitor the number of users, the amount of time they spend listening to music, and how many users switch to the premium service.

Infrastructure to Develop the Application:

This project requires three applications, one for the artists, one for the clients and the other for the investor and ability to use this app on all iOS and Android devices also on the Web.

Artist application:

- Ability to upload new music
- Track the insights per song
- Track royalty

Client application

- Listen to music
- Create playlists
- Personalize song selection
- Offline listening capability *premium users
- Buy premium service

Investor

- Track statistics per artists
- Create new artists
- Validate new genres

Infrastructure needed:***Front-end:***

The frontend of the project will be using Javascript mainly with HTML and CSS for different components, this is to ensure the app stays constant through all platforms. This will be done using NativeScript, which allows you to make native android and iOS applications through JavaScript. The web platform would be using the AngularJS as it makes adding new features very easy.

Back-end:

The project would be responsible for song recommendations and other features like creating genre specific playlist. The backend would be on MongoDB to make it future proof by making it easier to add new data and new relations in the database without recreating the database. Python would be used for the backend and per-user music recommendations as it is lightweight and easy to host. There would be RESTful API to allow for communication between the front-end and back-end. .