

Project Plan

◀Music Streaming System with Mobile Music Player Application▶

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Document Revision History

Revision #	Date
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1.0	October 9, 2021
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Table of Contents

1. Executive Summary	3
2. Project Approvers, Reviews and Distribution List	3
3. Scope	4
4. Deliverables	5
5. Assumptions	5
6. Dependencies	6
7. Risk Management	7
8. Communication	7
9. Task Listing (WBS - Work Breakdown Structure)	8
10. Gantt Chart	8
11. Milestones	9
12. RAM - Responsibility Assignment Matrix	9
13. Approval	10

1. Executive Summary

The following describes the project to be executed.

Objective	This project will deliver two products which are a mobile application and an online streaming service. Through consideration of the flaws of the competition such as features and will seek to gain users that are not within their target demographic.
Corporate Goals Addressed	<ul style="list-style-type: none"> - Provides an avenue for users to host their content online. - Allows independent creators to promote their products (music / podcasts) - Creates a base for the products, services and infrastructure which may be expanded upon at a later date.
Planned Start Date	September 20, 2021
Planned End Date	April 1, 2022

2. Project Approvers, Reviews and Distribution List

Approvers, reviewers and distribution list

Project Role	Name	E-mail	Date
Project Developer	James Weber De Asis	JamesWeber.DeAsis@georgebrown.ca	Oct 9, 2021
Project Developer	Aryan Luthra	Aryan.Luthra@georgebrown.ca	Oct 9, 2021
Project Developer	Simon Ung	simon.ung@georgebrown.ca	Oct 9, 2021
Project Developer	Chi Calvin Nguyen	chicalvin.nguyen@georgebrown.ca	Oct 9, 2021

3. Scope

Define the sum total of all of its products and their requirements or features.

In Scope	Out of Scope
<p>Music Player Mobile Application</p> <ul style="list-style-type: none">- One of the products to be delivered, software which is the front for the service	<p>Monetization</p> <ul style="list-style-type: none">- Project only considers the hosting and streaming of songs. Monetization may produce legal issues which must be dealt with before.
<p>Streaming Service</p> <ul style="list-style-type: none">- One of the products delivered from the project, it is the service where users can stream songs and upload their own.	<p>Automatic DMCA</p> <ul style="list-style-type: none">- Current project uses disclaimer, issue claims page, and strict removal of songs with conflicts. Other services use AI / ML based matching to handle conflicts.
<p>Remote Servers</p> <ul style="list-style-type: none">- Externally managed remote servers will be used to host our systems and services	<p>Server Hardware</p> <ul style="list-style-type: none">- Internal management and procurement of servers not considered. External servers will be used to host services
<p>Software</p> <ul style="list-style-type: none">- The programs which will be used to create the mobile application are Android Studio. The tools used to	<p>Hardware</p> <ul style="list-style-type: none">- The mobile app will be tested using Android Studio's emulator and physical hardware will not be provided. It may be tested using

create the system are still to be determined.	the project team's personal hardware at their own risk.
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4. Deliverables

This project will deliver the following.

Deliverable	Description
Music Player App	An application running on mobile platforms such as Android and IOS which includes offline functionalities (local playback) and is the client side for the streaming service.
Streaming System	The system will be the backend for the online functionalities where it will provide the songs which are streamed to the client. The system will also convert songs uploaded into multiple formats (320 vs 128kbps) for quality selection and store these files.
Streaming Service	The service where users can register and gain online functionalities of the music player application which include streaming music and uploading music to the remote system. The service also provides recommendations to the user based on their preferences.

5. Assumptions

This project makes the following assumptions;

- All project team members are able to complete the tasks in the estimated time.
- All project team members have the necessary resources to reach their goals of the project
- The external server is able to handle the load required by the product
- The proposed DMCA disclaimer and takedown are able to handle any conflicts and will not evolve into a larger issue
- The scope and products of the project will remain the same throughout the project cycle

6. Dependencies

The following are the internal and external dependencies that will have to be acknowledged and addressed;

1.0 Acquire development tools such as Android Studio (Internal)

1.1 Procure access to external servers to host the system (External)

1.2 Complete App design documents such as wireframes etc (Internal)

2.0 Development of the Music Player App (Internal, 1.2 Finish to Finish, 1.1 Finish to Start)

2.0.1 Local Playback Feature

2.0.2 Playlists

2.0.3 Equalizer

2.1 Development of the streaming system (Internal, 2.0 Finish to Finish, 1.1 Start to Start)

2.1.1 Streaming content development

2.1.2 User access development

2.1.3 User features development

2.2 Testing of the App (Internal, 2.0 Start to Start)

2.3 Testing of the System (Internal, 2.1 Start to Start)

3.0 Implementation of the App and System (2.2, 2.3 Finish to Start)

7. Risk Management

The following are the risk associated with the project and the strategies to use to avoid risk or solve the occurrence of the problem;

Potential Risk	Severity (H/M/L)	Likelihood (H/M/L)	Management Strategy
Team member unable to work on the project (I.e. sickness, accident, jail, etc...)	M	L	Split work of missing team member between the remaining group members.
Application Errors	H	M	Use of branches to avoid errors and only commit guaranteed working code to the master version. Using a version control software such as git would allow us to rollback to an older version. Each member would also keep a local backup just in case git goes down.
Bugs	M	H	Creation of Unit test and extensive testing on our part to avoid bugs. Bugs that are present on the application would be dealt with by putting it on the sprint backlog based on priority.
Unrealistic Timelines	M	H	Adjust deadlines and clear communication on what is actually feasible.

Group Disagreements	M	L	Group discussion and majority votes.
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8. Communication

Reporting

The following reports will be produced;

Report	Audience	Frequency
Minutes of Meeting Report	Team member / Instructor	Weekly

Meetings

The following meetings/communication will be established;

Meeting	Purpose	Attendees	Frequency
Minutes of Meeting	Group Discussion about the Project. Assigning who will work on which task. Addressing any concerns.	All Team Members	Weekly (2 hours)
Progress Meeting	Short discussion just checking progress.	All Team Members	Occasional (5 mins)

9. Task Listing (WBS– Work Breakdown Structure)

The following resource proposal template summarizes the resource hours committed to this project, upon final approval of this document.

Reference	Tasks	Duration	Dependency
A	Project Planning	Start of project - October 10, 2021	N/A
B	Design Application	October 12, 2021 - November 5, 2021	Dependent on A
C	Coding of the Application	January 10, 2022 - March 11, 2022	Dependent on finishing B
D	Building User Interface	March 11, 2022 - March 25, 2022	Dependent on Finishing B and C

E	Testing / Fixes	March 25, 2022 - April 1, 2022	Dependent on Finishing C and D
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10. Gantt Chart

Refer to Gantt Chart.xlsx provided in the submission.

11. Milestones

Major Activity or Milestone	Estimated Milestone Target date
Environment Setup	January 21, 2022
Research Packages	January 24, 2022
Setting Up Database	January 28, 2022
Functional Music Player	February 4, 2022
Play Music from Local Files	February 4, 2022
Uploading Music to Database	February 18, 2022
Streaming Music	February 18, 2022
Playlist Function	February 25, 2022
Queue/Dequeue System	February 25, 2022
Recommendation System	March 11, 2022
User Interface	March 25, 2022
Final Testing / Fixes	April 1, 2022

12. RAM – Responsibility Assignment Matrix

<u>Project Team Responsibilities</u>				
Project Name: Music Streaming System with Mobile Music Player Application				
Task	Calvin	James	Simon	Aryan
Assess Requirements	P	S	S	S
Streamline Working Environment	S	P	S	S
Design Application	S	S	P	S

Coding	S	S	S	P
Testing	P	S	S	S
P = Primary S = Secondary				

13. Approval

The signatures below indicate their approval of the contents of this document.

Project Role	Name	Signature	Date
Project Developer	Chi Calvin Nguyen	CCNguyen	Oct 9, 2021
Project Developer	James Weber De Asis	JWDA	Oct 9, 2021
Project Developer	Simon Ung	SimonU	Oct 9, 2021
Project Developer	Aryan Luthra	AryanL	Oct 10, 2021