

# MusiQueue

## Product Backlog

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### **Problem Statement**

Typically for a bluetooth connection to a speaker, in order to play your own music you must first kick the person who is currently on the speaker off of it and then connect yourself to the speaker. Our application will allow users to connect to a queue, playing on one person's device (a.k.a. The hub) and enter music into a queue in the hub. The music will then play from the speaker after the song that was currently playing in real time, removing each song as it is played. Users are able to vote on and interact with the hub.

### **Background Information**

The members of our team have all experienced the problem of deciding who plays music in any sort of social gathering. Whether it be in your apartment, or at a larger gathering everyone has their own taste in music. Currently, there is no application that perfectly addresses this issue and allows for every user's music to be represented. In CS 307, we addressed this problem with an android app, but we were not satisfied. First of all, IOS users are still completely alienated from our app. Secondly, because we use YouTube, the hub owner's phone screen must stay unlocked to allow music to continually play. We address this by implementing our application on web. This will mostly benefit hub owners, but may prove to be convenient for general users as well.

## Environment

We will use HTML for the static pages and AngularJS for the user interactions on the front end. We are using Firebase for our backend and database, so we will be storing users, the playlists and number of votes for each song from the hubs on Firebase.

## Requirements

### Functional

Backlog ID	Functional Requirements	Hours	Status
1	As a user, I would like to be able to sign in to MusiQueue using my Google account	4	Planned for Sprint 1
2	As a user, I would like to change my username	2	Planned for Sprint 2
3	As a user, I would like to connect to a hub by searching	6	Planned for Sprint 1
4	As a user, I would like to add songs to the playlist in a hub	4	Planned for Sprint 1
5	As a user, I would like to vote on songs in a hub	4	Planned for Sprint 2
6	As a user, I would like for songs to re order based on their number of votes	8	Planned for Sprint 2
7	As a user, I would like to give my hub a name and protect it with a 4 digit pin password	4	Planned for Sprint 1
8	As a hub administrator, I would like to be able to remove songs from the hub playlist	4	Planned for Sprint 2

9	As a hub administrator, I would like to kick people off my hub	2	Planned for Sprint 2
10	As a user, I would like to connect to a hub near me.	8	Planned for Sprint 1
11	As a user, I would like to sign out out of my Google account	2	Planned for Sprint 2
12	As a user, I would like to see which hubs are near me	4	Planned for Sprint 1
13	As a user, I would like to leave a hub	3	Planned for Sprint 2
14	As a user, I would like to pull up a YouTube search in app	6	Planned for Sprint 1
15	As a hub administrator, I would like to see the current video playing on my screen	2	Planned for Sprint 1
16	As a user, I would like to automatically be granted access when returning to a hub I have previously provided the correct pin for	8	Planned for Sprint 2
17	As a developer, I would like to inspect my code, unit inspect my code, and inspect the design of my code.	100	Planned for Sprint 1 & 2
	<b>Total</b>	171	

## Non-functional

Backlog ID	Non-Functional Requirements	Hours	Status
18	As a user, I would like personal information to remain secure and private	8	Planned for Sprint 2
19	As a developer, I would like to learn how to set up a local	4	Planned for Sprint

	development environment for using ng and AngularJS		1
20	As a developer, I would like to learn how to use AngularJS	20	Planned for Sprint 1
21	As a developer, I would like to learn how to use Firebase	10	Planned for Sprint 1
22	As an administrator, I would like all songs to be searched and selected from YouTube	4	Planned for Sprint 1
	<b>Total</b>	46	

## Use Cases

### **Case: Google login**

#### **Action**

1. Click Google button
3. Input credentials

#### **System Response**

2. Open Google login
4. Login user
5. Close Google login

### **Case: Change username**

#### **Action**

1. Return to nickname screen
2. Enter desired nickname in text box
3. Press enter button

#### **System Response**

4. Change associated username
5. Display create/join hub screen

### **Case: Add song to playlist**

#### **Action**

1. Create new hub
3. Search for video in search bar
5. Select desired video

#### **System Response**

2. Pull up hub admin view
4. Pull up top 5 search results
6. Add video to playlist

7. Return to playlist view
8. Begin playing video

### **Case: Upvote a song in a playlist**

#### **Action**

1. Create a hub
3. Search and select a video
6. Press upvote button on song

#### **System Response**

2. Display admin hub view
4. Enter video into playlist
5. Return to admin hub view
7. Change upvote count
8. Change button color

### **Case: Downvote a song in a playlist**

#### **Action**

1. Create a hub
3. Search and select a video
6. Press downvote button on song

#### **System Response**

2. Display admin hub view
4. Enter video into playlist
5. Return to admin hub view
7. Change downvote count
8. Change button color

### **Case: Reorder playlist after a vote is cast**

#### **Action**

1. Create new hub
2. Search for and enter three songs
4. Enter upvote for third song

#### **System Response**

3. Enter songs and update playlist
5. Make third song now second

### **Case: Create hub with name and pin password**

#### **Action**

1. Click the create hub button.
3. Enter desired hub name and pin

#### **System Response**

2. Pull up hub creation view
4. Pull up hub admin view

### **Case: Remove song from playlist**

#### **Action**

1. Create new hub
3. Enter two songs into playlist
5. Select red minus button and hit "remove"

#### **System Response**

2. Pull up hub admin view
4. Update playlist after each video
6. Delete video from playlist
7. Update playlist view

### **Case: Kicking somebody from hub**

#### **Action**

1. Create new hub
3. Join hub on another device with new account
5. Select red minus button and hit "remove" on user

#### **System Response**

2. Pull up hub admin view
4. Update users list
6. Remove user from user list

### **Case: Connect to nearby hub**

#### **Action**

1. Select to join hub from create/join hub screen
3. Navigate to nearby hubs view
5. Select desired hub from list

#### **System Response**

2. Pull up join hub options view
4. Display nearby hubs
6. Connect to hub
7. Pull up user or admin hub view

### **Case: Sign out of Google account**

#### **Action**

1. Navigate to create/join hubs screen
2. Select sign out button

#### **System Response**

3. Pull up user login screen

### **Case: Checking which hubs are nearby**

**Action**

1. Select to join hub from create/join hub screen
3. Navigate to nearby hubs view

**System Response**

2. Pull up join hub options view
4. Display nearby hubs

**Case: Leaving a hub****Action**

1. User presses back button
3. Press yes or no to leave or not leave hub

**System Response**

2. Prompt the user yes or no dialog
4. Pull up create/join hub view (yes)
5. Stay in current hub (no)

**Case: Searching YouTube in app****Action**

1. Select "join hub" from create/join hubs view
2. Search for a hub by name in search bar, press enter

**System Response**

3. Pull up similar hubs to search

**Case: Watching current video on screen****Action**

1. Create new hub
2. Enter two new videos into queue
3. Current video ends

**System Response**

4. Pull next video from playlist
5. Load and play video on screen