

# MusiQueue

## Team 19 - Sprint 2 Planning Document

Vincent Maggioli, Samuel Kuhns, John Stimac, Sairam Galla, Brian Hanford, David McGary

### Sprint Overview

During this sprint, we hope to get a lot of our core functionality working consistently. The main priority is getting the queue displaying on the front end, and updating its order as songs get voted on across devices. Different devices should be able to interact with the same list of songs, and the hub playing the songs should be able to play them in the correct order, one after another. We also hope to make our system more secure and robust.

**Scrum Master:** John Stimac

**Meeting Plan:** Wednesday/Friday during CS 307 hours (11:30-12:20)

**Risks and Challenges:** The biggest risk we face this sprint is not being able to get multiple devices communicating with the backend working correctly. It might be difficult to make multiple devices update their queues when a user votes on a song. There is also a risk that a corner case in user data or server response will result in queues working incorrectly, so we will need to make sure to have checks for data validity on the front and back ends. Another challenge we will have is making the system secure. If we can not establish secure and safe connections, the hubs will be at the mercy of hackers and we will no longer have a reliable product for consumers.

NOTE: all shared user stories are split hours. (i.e. time of 20 hours shared between two owners is 10 for each user)

### User Story 1

As a user, I would like to have songs leave the queue as they get played.

Task	Time	Owner
Create call to backend for new song on completion of a video.	10 hours	Vincent Maggioli
Make the backend give the next song in the queue, and remove it from the queue when it is played.	10 hours	John Stimac

### Acceptance Criteria

- If the queue is not empty, the next video in the queue will play once the current video has ended.

### User Story 2

As a user, I would like to have the queue reorder as songs get voted on.

Task	Time	Owner
Create a way for front end to learn that the queue order has changed, and reorder the queue.	20 hours	Vincent Maggioli John Stimac

### Acceptance Criteria

- Once a vote is submitted, the order of the queue on screen will change if necessary.

### User Story 3

As a user, I would like my pin-protected hubs be secure so users without the pin cannot gain access.

Task	Time	Owner
Mitigate against brute force attacks where hackers try to guess the hub pin.	20 hours	John Stimac Brian Hanford
Make connections to the backend secure over https	8 hours	John Stimac Brian Hanford

### Acceptance Criteria

- Have the connections to the server use https.
- Prevent a user from guessing more than 10 pin numbers/minute from a single IP address.

### User Story 4

As a user, I would like to have an option to reconnect to a recent hub without having to type the name and password again.

Task	Time	Owner
Learn how the backend works	30 hours	David McGary, Vincent Maggioli, Sairam Galla
Make an activity to display recent hubs	15 hours	David McGary
Ensure that connecting to recent hubs will not prompt for PIN	5 hours	David McGary
Only display hubs that users have used within a certain time frame (will require backend work)	10 hours	David McGary

## Acceptance Criteria

- A user will be able to enter a screen that displays recent hubs
- Users will not see hubs that they have ignored for a long time on the activity

## User Story 5

As a user, I would like to see the songs currently in the queue in priority order.

Task	Time	Owner
Reorder the songs in the queue based on the upvotes received for each song.	20 hours	Sairam Galla, Sam Kuhns
Implement the RecyclerView so that the user can scroll through the playlist.	20 hours	Sairam Galla, Sam Kuhns
Create a Hub Singleton to globally save the information about the hub's name and list of songs	5 hours	Brian Hanford

## Acceptance Criteria

- Given that the priority queue is working properly, a user will be able to view the songs in the playlist in the current order that they will be played in.
- Given that the playlist is being displayed properly on the UI, the user should be able to scroll through the songs currently on the playlist.

## User Story 6

As a user, I would like to see who put each song in the hub.

Task	Time	Owner
Display the username of the person who placed a song in the queue on the playlist.	10 hours	Sairam Galla, Samuel Kuhns

## Acceptance Criteria

- Given that the playlist is working properly, the username of the user who has put a video in the playlist will be displayed beside the video name.

## User Story 7

Research automated android testing for the front end without having to click through the app

Task	Time	Owner
Research if it is worth the time of doing.	0.5 hours	Brian Hanford
Research the most efficient way of doing so.	6 hours	Brian Hanford

## Acceptance Criteria

- Given that research suggests creating automated tests are useful, an administrator will be able to create a convenient api for testing the front end of the app.
- Given that a front end automated testing api is created, all members of the team will be able to have a convenient and easy-to-use way of doing front end testing.

## User Story 8

As an administrator, I would like users to view a different screen based on if they are a hub owner or user.

Task	Time	Owner
Create different views for hub owner and users	20 hours	Samuel Kuhns Sairam Galla

Check to see if user joining hub was the person who created the hub and send them to correct view	3 hours	Samuel Kuhns
---	---------	--------------

#### Acceptance Criteria

- A user that is connected to someone's hub should view a different UI than the hub-owner.
- Given that a person is using a hub, the app should identify whether the person is a user of someone's hub or the hub owner.

#### Product Testing

Task	Time	Owner
Create test cases for making sure the database is correctly updated upon adding and deleting songs to the queue	2 hours	John Stimac
Create test cases for making sure the app is secure and https is working correctly	4 hours	Brian Hanford John Stimac
Create test cases for making sure that JSON is parsed correctly and the list updates in correct order.	2 hours	Samuel Kuhns
Create test cases for making sure that the database is correctly sending data about a user's 'recent hubs'	2 hours	Brian Hanford
Test to make sure all activities have the expected values for Singleton objects such as the hub singleton and user singleton throughout the course of development	10 hours	Brian Hanford

## Functional Requirements

- As an administrator, I would like to have hubs auto delete after a few days of inactivity
- As an administrator, I would like to store and view all active hubs with their queues on a server.
- As an administrator, I would like to identify individual hubs by phone IDs.
- ~~As an administrator, I would users to view a different screen based on if they are a hub owner or user.~~
- ~~As a user, I would like to connect to a hub by the hub name and password.~~
- As a user, I would like to find a nearby hub based on my current location, time permitting.
- ~~As a user, I would like to be able to sign in to MusiQueue securely (automatically with phone pin).~~
- ~~As a user, I would like to have an option to reconnect to a recent hub without having to type the name and password again.~~
- ~~As a user, I would like to type in my name when connecting to a hub.~~
- ~~As a user, I would like to see the songs currently in the queue in priority order.~~
- ~~As a user, I would like to have the queue reorder as songs get voted on.~~
- ~~As a user, I would like to see who put each song in the hub.~~
- As a user, I would like to see how many votes each song in the queue has, time permitting.
- ~~As a user, I would like to not allow duplicates in the queue.~~
- ~~As a user, I would like to be able to queue youtube videos as songs.~~
- ~~As a user, I would like to be able to search for a song by name, see results, then add one to the queue.~~
- ~~As a user, I would like to be able to add youtube videos by their url.~~