



Juked



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Introduction

- Collaborative song selection for any get together
- Allows for members of a party to choose songs to be played from a centralized source
- Searches both Spotify and Soundcloud for desired song
- Ability to upvote/downvote songs that are liked/disliked

Functional Requirements

- The app will give the option either to create a lobby or join a lobby.
- User will be able to select a song from spotify or soundcloud.
- User will be able to upvote or downvote a song.
- User will get a turn after his chosen has been played.
- Host will be able to remove a song or user
- Host will be able to add a song at any time
- Rooms will be 4 digits

Non Functional Requirements

- The app should be able to sync user votes
- The central database should be keep track of all rooms created, in order to avoid conflict.
- If the host does not close a room, it should be freed up after a certain time for reuse.
- The app should have a smooth feeling, when several users are upvoting or downvoting, it should have the capability to handle the simultaneous activity.

Competitors

App/Req	Platform	Password Protection	Song Selection	Popular song	Spam Prevention	Affect Host's personal ranking?
Spark.dj	Apple	No	Spotify	Up/Down Vote	No	No
flo	Apple	No	SoundCloud/Spotify	No	Host permission	Yes
Tropo	Android	Share via Wifi	User Device, online	Up/down vote	No	N/A
Festify	Web based	Party code	Spotify	Up/down vote	No	N/A
Jukester	Apple/Android	Yes	Spotify	Up/ Down vote	No	No
Juked	Android	Random 4 digit code	Spotify	Up/Down Vote	Yes	No

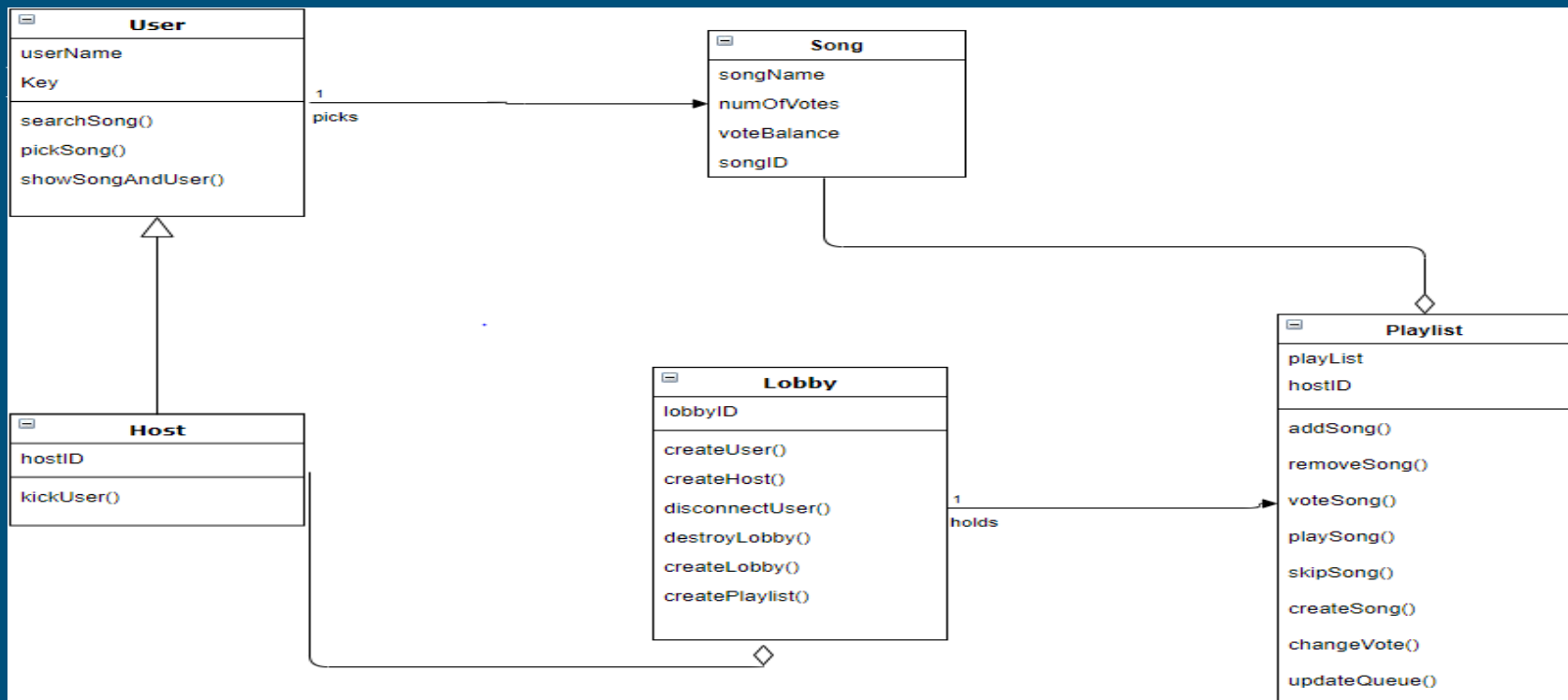
Classes

- User
 - Base class that allows to search and pick songs.
- Host
 - Host inherits all methods from user, but has a hostID field. The hostID determines what methods the host can use to control the lobby.
- Song
 - Will not contain any methods. An object that keeps track of the name, id, and number of votes

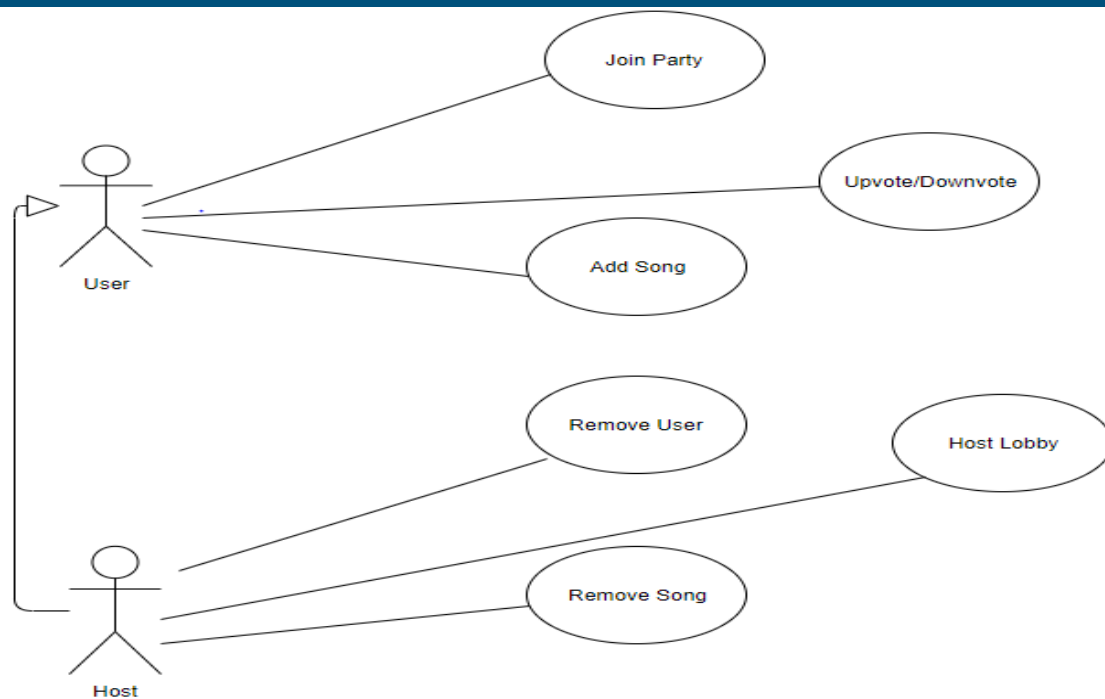
Classes Continued

- Lobby
 - Lobby will contain a playlist and all the users. This is where the power to create the users and hosts are.
- Playlist
 - The playlist makes use of the song object. The playlist consists of a queue that holds song objects. Most of the methods in the playlist class deal with adding or removing songs from the playlist queue.

Class Structure



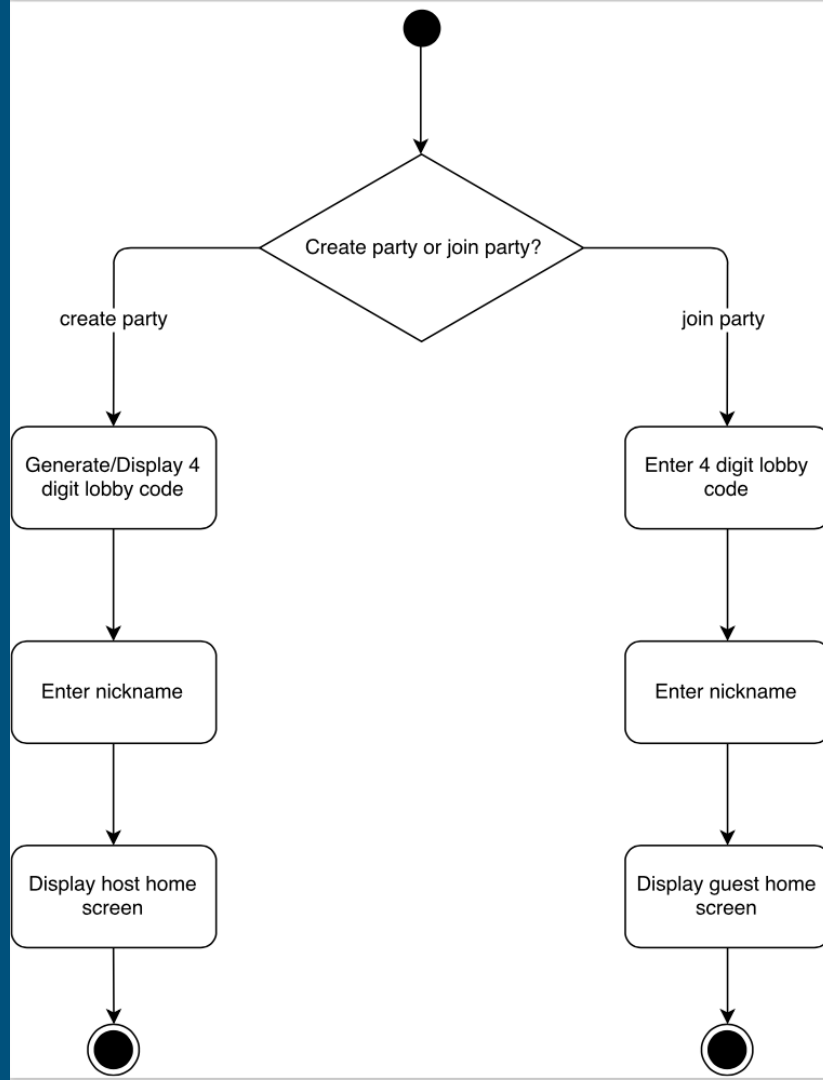
Use Cases



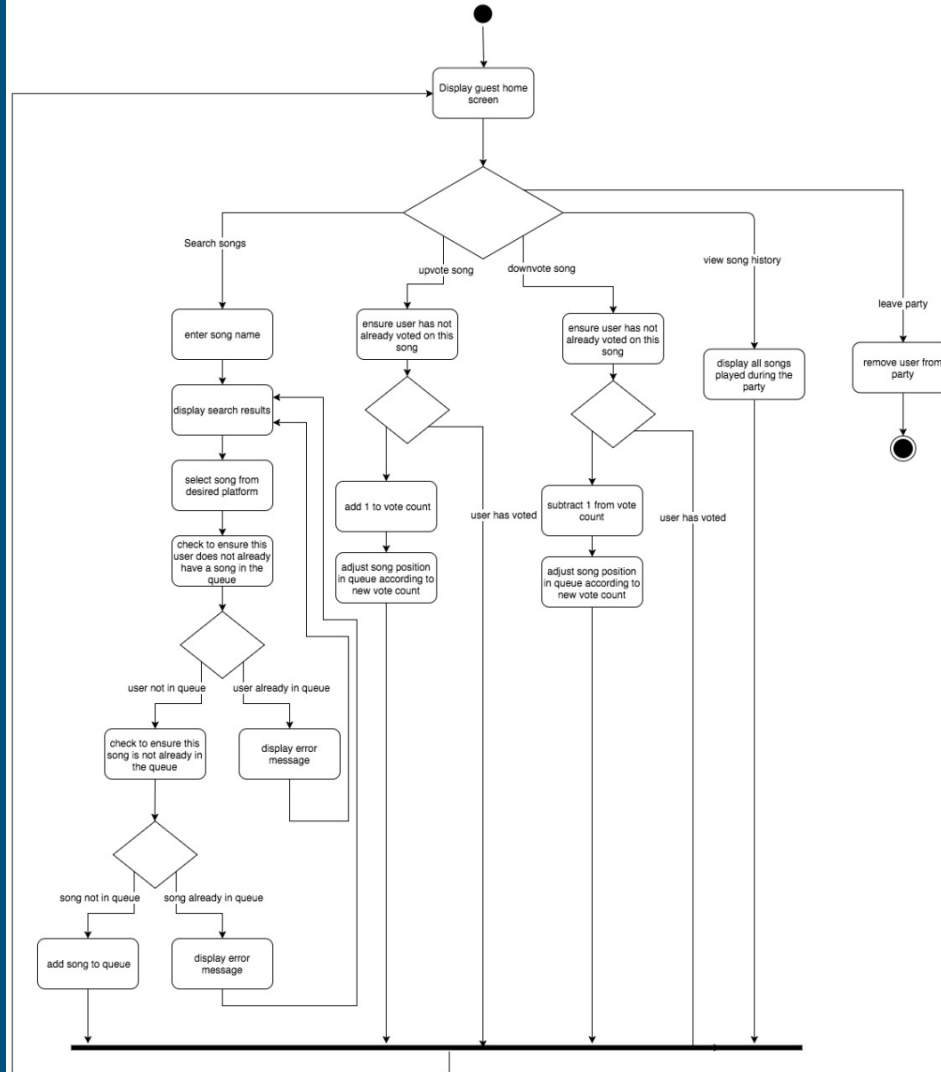
Activity Diagrams

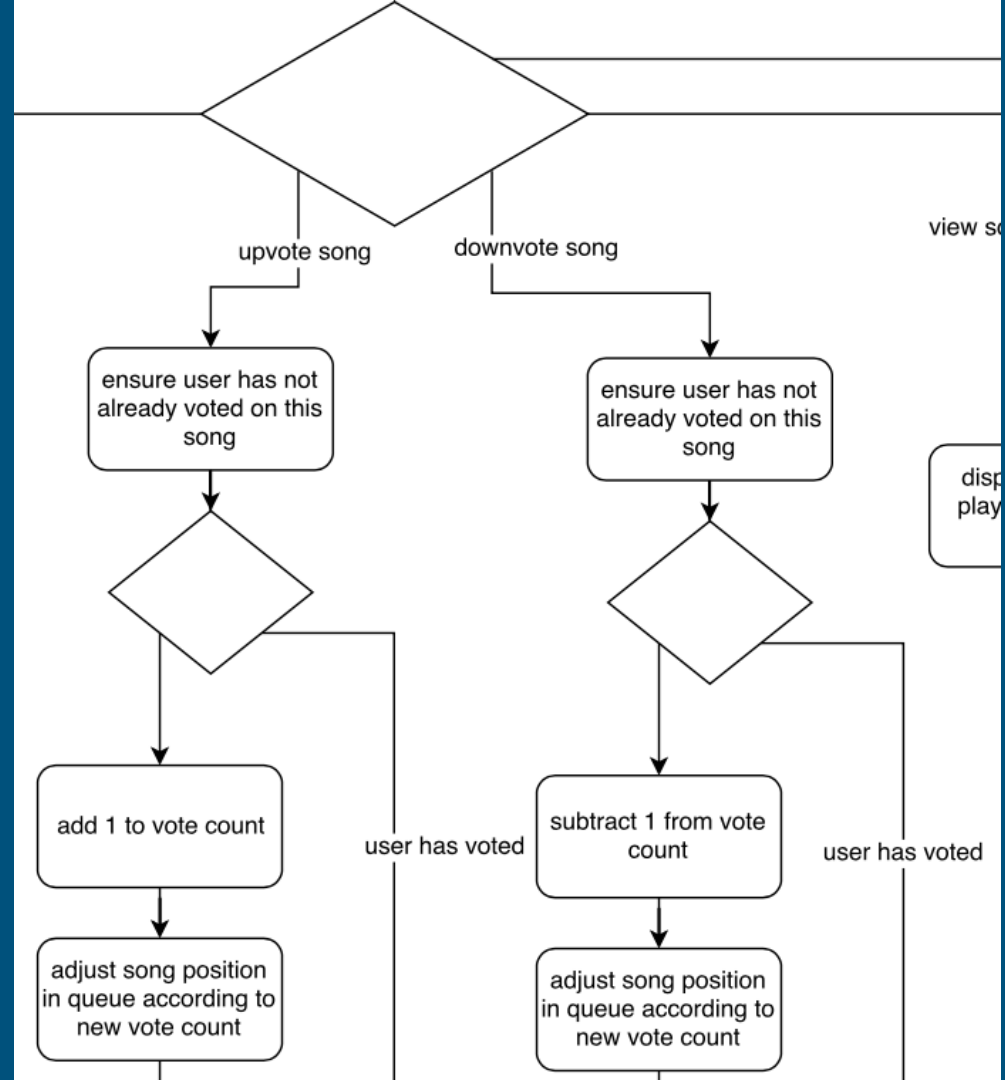
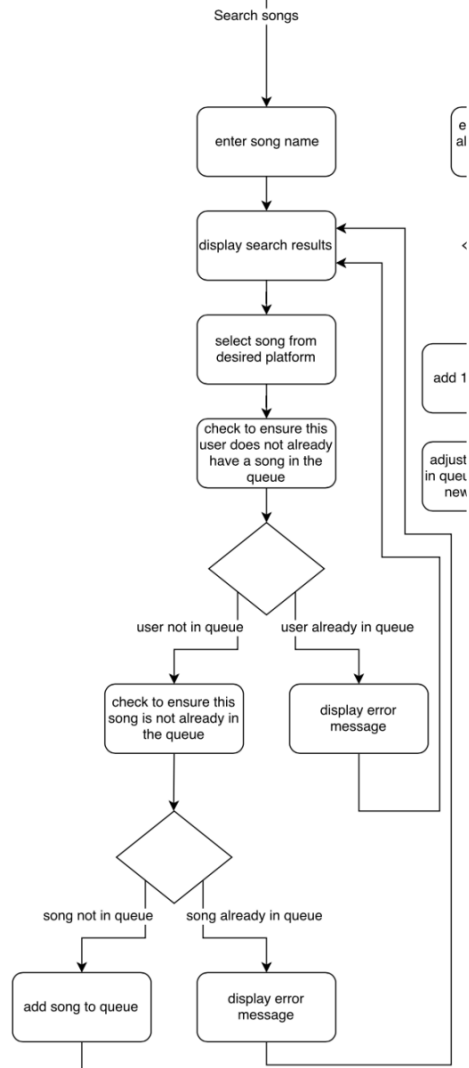
- Splash Screen
 - Determine if user is a host or guest
 - Handle lobby code
 - Enter nickname
 - Display corresponding homescreen
- Guest Screen
 - Song Options
 - Leave Party
- Host Screen
 - Administrative options
 - Song options
 - End party

Splash



Guest





view song history

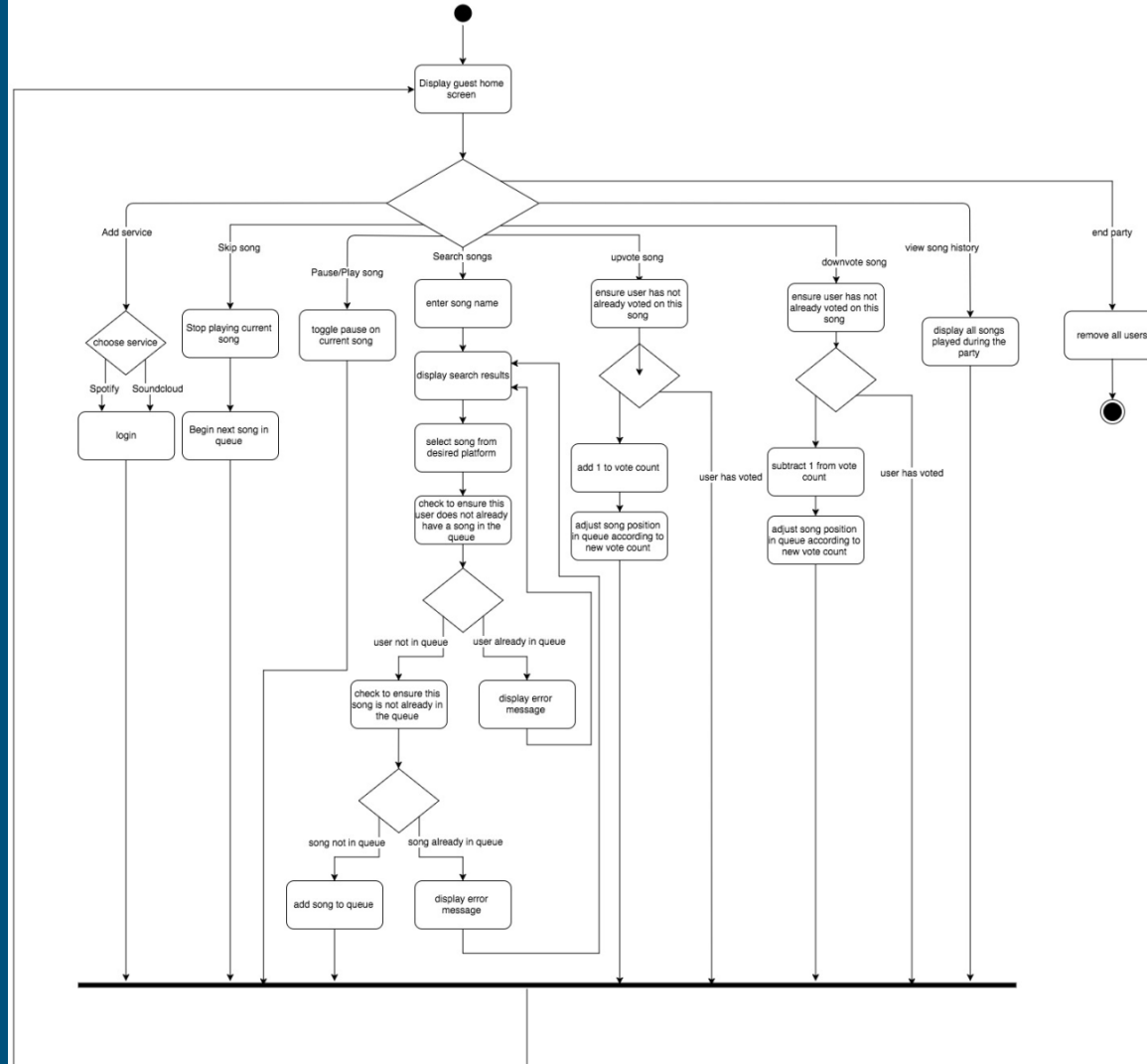
display all songs
played during the
party

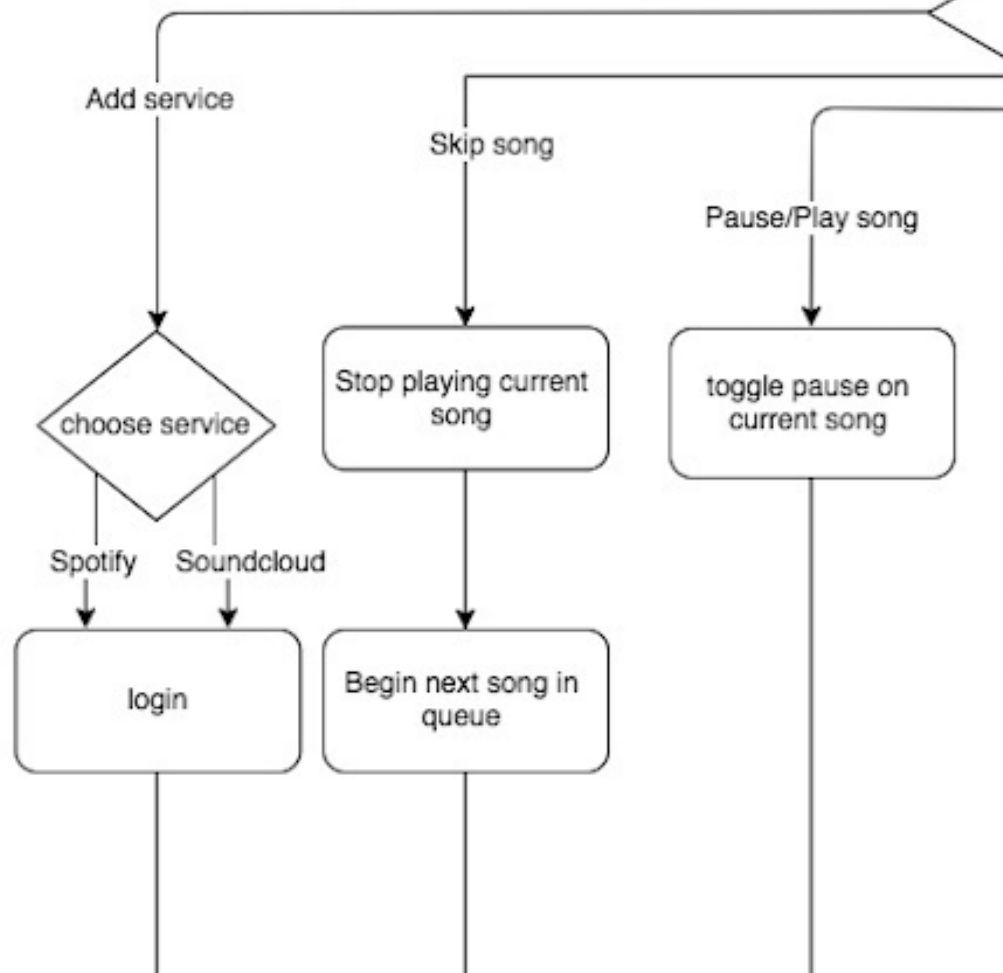
leave party

remove user from
party



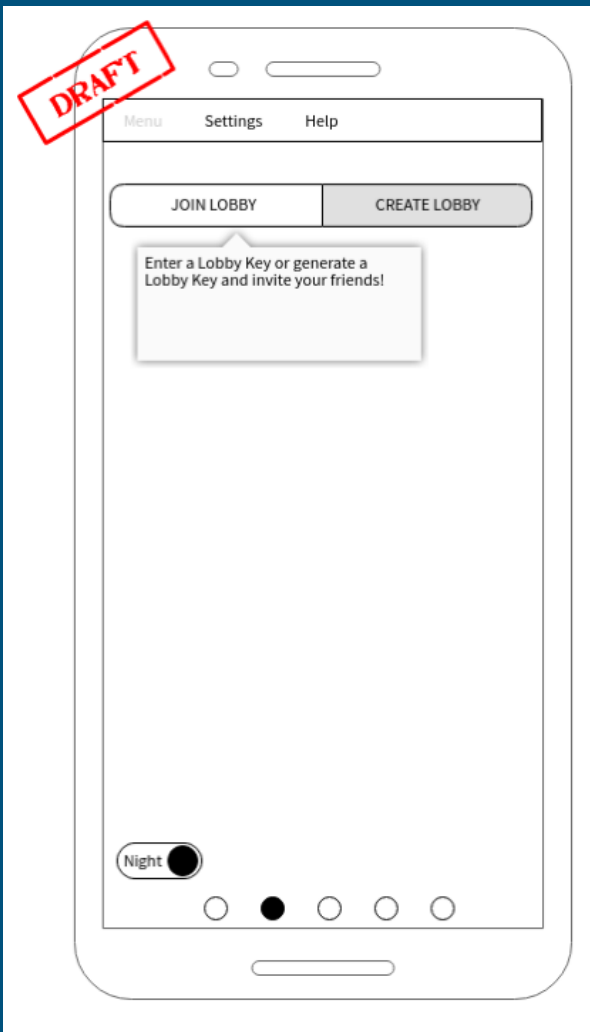
Host





Analytical Diagrams | UI/UX Mockup

- Broad overview over:
 - Splash Screen
 - Lobby Screen
 - Settings Screen

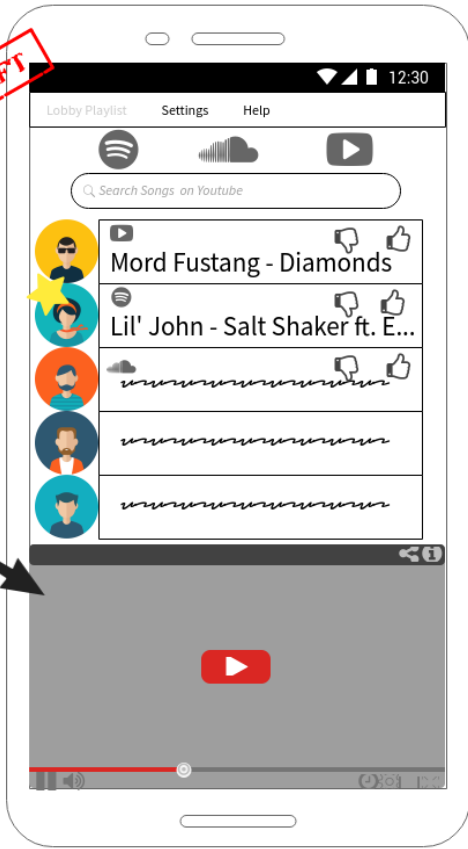


Choose rather to be a host or a guest

- Host -> Generates a lobby key
- Guest -> Enter a lobby key

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This will only show if the Music Video is available, otherwise, it'll show a song-scroller

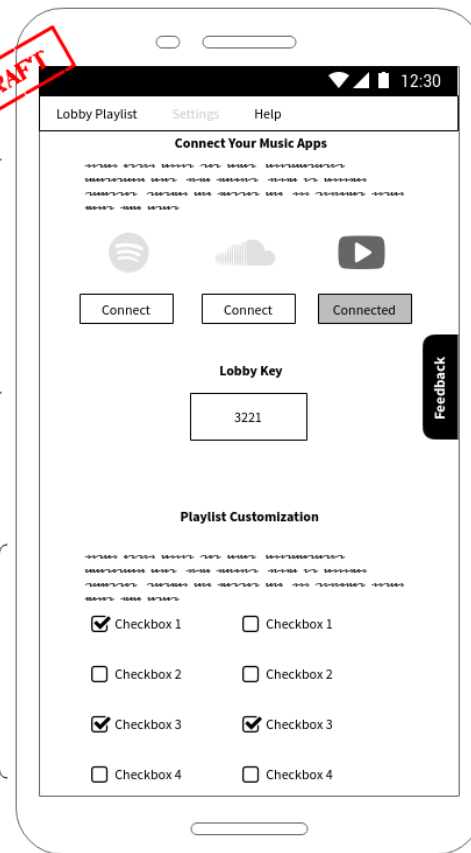


This is the Lobby menu where users will select songs and can view other users, etc

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The User/Host can change lobby settings, change their avatar picture (if they please), connect apps to their account, etc

The Host, here, can change how a playlist is played: FIFO, Random, Vote Basis, etc



This is the setting screen, usually only relevant for the Host of the lobby

Priorities

- Required
 - Spotify and Soundcloud support
- Possible
 - Host can allow users to have more song choices per round
 - Host can choose queueing method
- Future Work (If Time is Available)
 - Youtube support for music videos

Risks

- Not able to obtain APIs or limited functionality for what we want to accomplish
 - Approval
 - We don't see this being an issue for a school project, however.
- A lot of vectors for race conditions that will have to be checked for
- North Korea nukes the U.S and sends the world into an Apocalyptic state
 - Project will not be finished by the end of the semester

Our Perspective

- Planning everything out, such as our diagrams, will make coding easier as we start to do so.
- Possibly run into problems with methods overlapping and not working together.
- We decided on a simple layout to make our products ease of use as high as possible.