Choonz

Group P ITECH Design Specification 2020



Overview

Choonz will allow users to create, upload or share music playlists from external streaming sources such as Spotify¹. On the creation of a new playlist, the creator will be able to apply descriptive 'tags' to help categorise their playlist. Other users will then be able to rate and review the playlists, and will be recommended similar playlists based on tags they have rated highly.

The top rated playlists (within a user-defined time period) will be displayed on the front page. Users will also be able to search for playlists by name, or by tags, to help them find that perfect specific playlist to scratch their specific playlist itch!



Her Name Is Rio...

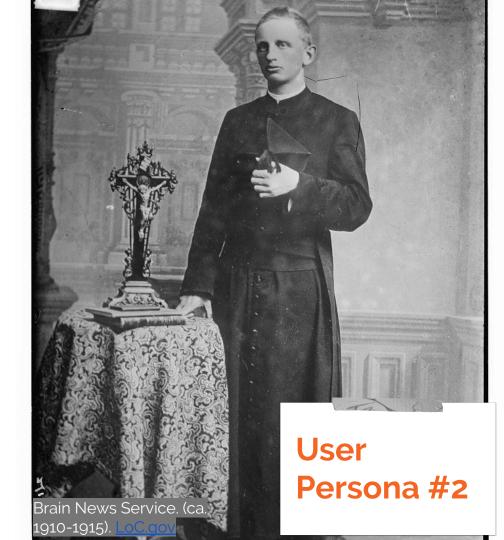
... and she is a 19 year old music lover from Chihuahua City, Mexico. In her spare time Rio likes to create playlists to share with her friends. She is very proud of her excellent and eclectic music taste, and so she feels that she needs a way to share her playlists with a wider audience.

Rio is also somewhat competitive, and would love a way to prove to herself and her friends that her playlists can rank among the best in the world.

Hey Joe...

A 40 year old priest from Oslo, Joe fell deep into the Norwegian Black Metal scene as a youth and, despite his new life as a man of the cloth, still harbours a forbidden love for those rage-filled guitar riffs and shrieking vocals.

Joe is always searching for the perfect 90s Black Metal playlist, but finds that no one ever seems to capture that perfect blend of nihilism and dread. What Joe needs is a way to rate and review playlists, and guide these lost souls with constructive criticism.





Come On Over Valerie...

Valerie is a 22 year old Scottish
Literature student from Glasgow.
Valerie finds that she can only study
while listening to 1980s Japanese
Ambient House music.

She needs to find the highest ranking playlists of this description to get some work done, but realises that this is a somewhat niche request.

So for this reason she needs a way to search for playlists that have specific tags (such as genre, tempo or era).

Specifications

→ Must

Allow users to create an account

→ Must

Allow account holders to create playlists

- → Must
 Allow users to rate/review others' playlists
- → Must
- Show users the top rated playlists within a certain time period
- → Should
 Allow users to link to playlists/songs from streaming sources
- → Should
 Allow account holders to apply tags to their playlists
- → Should Allow users to filter playlists by tags
- → Should Give account holders playlist recommendations based on playlists they have rated

→ Could

Allow users to login via Facebook¹/Twitter²

→ Could

Allow users to follow/subscribe to other users

→ Could

Introduce a multi-attribute rating system, so users can rate playlists on separate, distinct criteria, e.g. 'replayability'



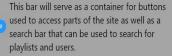
Main Page











This wireframe represents the main landing page that will be shown if no account is

logged in. For this reason, both Log In and

Sign Up buttons are displayed.

As there is no user logged in, this box will display the most popular playlists on the site without considering user preferences

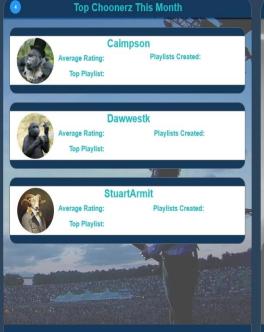
As there is no user logged in, this page will display accounts that have received the highest average rating across their created playlists over the course of a month/week etc.

When no user is logged in, this box will display the most used/most popular tags used on playlists on the site. It will be a carousel style box that will change the displayed playlists when the tag is cycled at the top using the arrows.

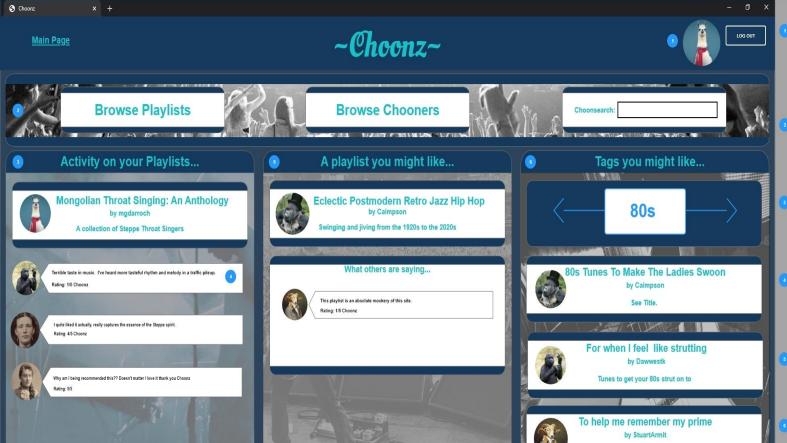
Here are two links to the 'About Us' and 'Contact Us' pages that will store information regarding the site and a way to contact the creators respectively.











This wireframe displays the main page that will be shown when there is a user logged in. The profile picture of the user is shown. This can be clicked to access the Account Page. The Log In and Sign Up buttons have been replaced with a single Log Out button.

Now that a user has logged in, the search bar now displays a button that allows the user to browse the playlists on the site, browse the users and a search bar that can be used to search for playlists and users on the site.

This box will now display any activity that has taken place concerning the user playlists.

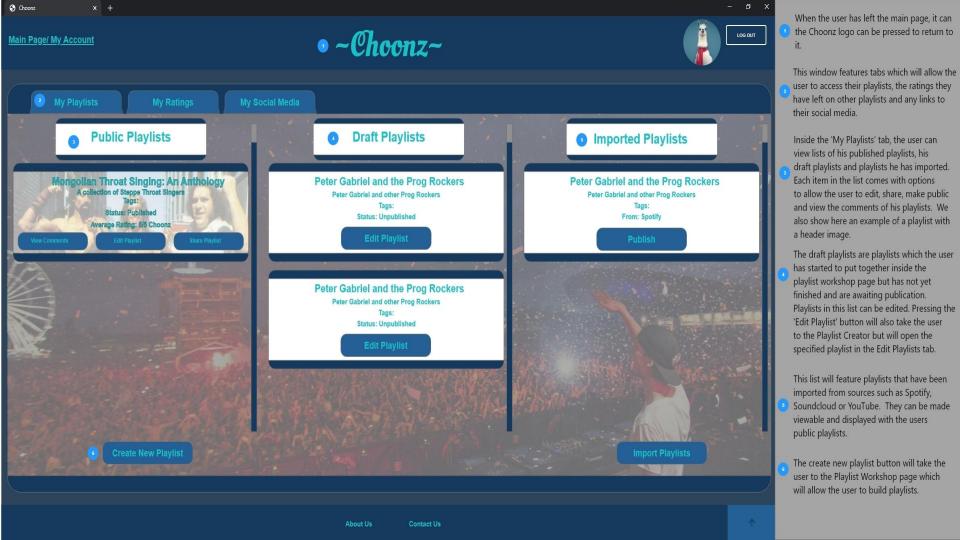
Comments and ratings will be displayed here along with the header which will show which playlist is being discussed.

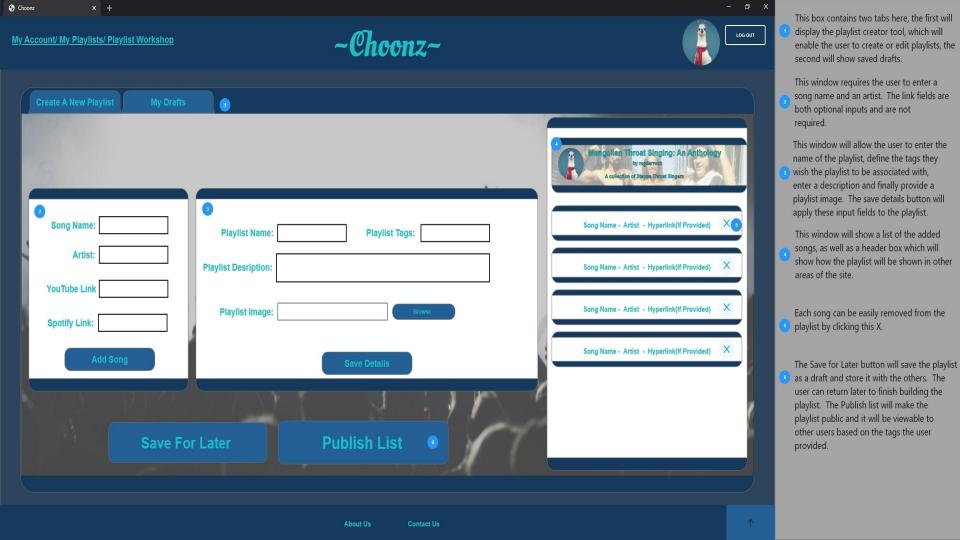
Here is an example of what a comment from another user may look like. The profile picture is displayed alongside a text box containing an optional comment and a rating.

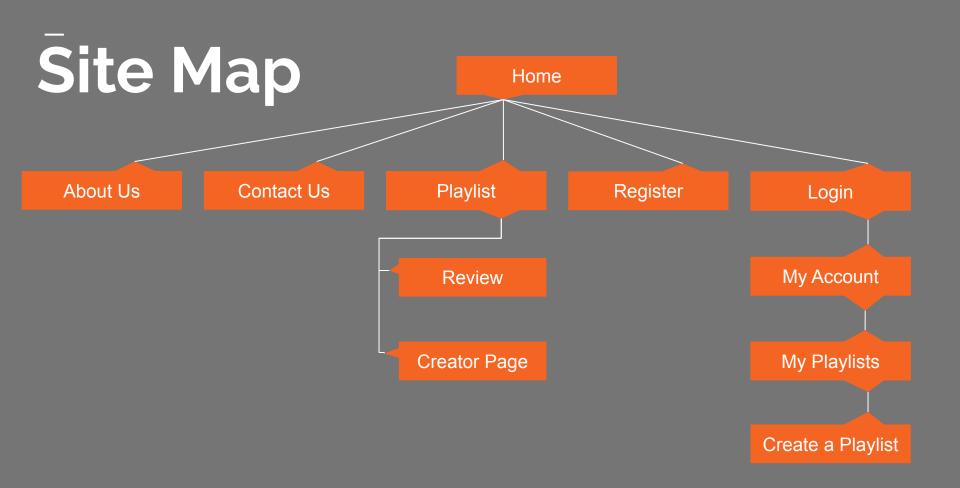
When there is an account logged in, this box will recommend a playlist to the user. This recommendation is based on which tags the account logged in is most associated with.

This box will display playlists linked with tags that are common on playlists the user rates highly but that the user does not use on his own playlists.

Back when I was young



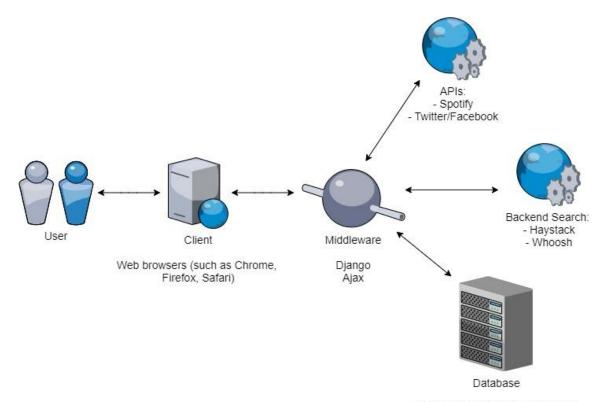




URLs

- /home
- /about
- /contact
- /register
- /login
- /myaccount
- /myaccount/myplaylists
- /myaccount/myplaylists/create
- /<playlist-name>
- /<playlist-name>/review
- /<username> (Note: for particular user's page)

System Architecture Diagram



Python-based SQLite3 Database

Entity-Relationship Diagram

User		
id	IntegerField(6)	
username	CharField(30)	
password	CharField(30)	
picture	FileField	

Playlist		
id	IntegerField(8)	
name	CharField(30)	
songs	ForeignKey	
averageRating	FloatField	
tags	oneToMany	
ratings	ForeignKey	
user	ForeignKey	
createdDate	DateField	
lastUpdated	DateField	
numberOfRatings	IntegerField(8)	
description	CharField(200)	
image	FileField	
published	boolean	

Rating		
user	ForeignKey	
playlist	ForeignKey	
stars	IntegerField(2)	
comment	CharField(200)	
date	DateField	

Artist	
name	CharField(30)
songs	ForeignKey
webpage	URLField
linkToSpotify	URLField
numberOfPlaylists	IntegerField(5)

Song	
name	CharField(30)
artist	ForeignKey
linkToSpotify	URLField
numberOfPlaylists	IntegerField(5)
linkElsewhere	URLField

Tag		
description	CharField(30)	
number Of Playlists	IntegerField(5)	

