

## INTRO

Broadly speaking, the new feature that our group implemented is a playlist feature. We have provided application users with the functionality to save their favorite tracks in a playlist called favorites. This additional new feature is a necessity (and thus not trivial) in any music applications as it offers the convenience and ease of use that application users expect. Such is evident through the details added to this playlist feature, some of which are outlined below.

## FEATURE EXPLANATION AND EXPLORATION/WALK THROUGH

We have made the playlist accessible from any location on the website as it is pinned to the top navigation bar. The reason for this is the consequential increase in convenience and ease of use for users.

Adding tracks to the playlist can be done by searching for a specific track or through browsing all tracks. We have added two green buttons for this to promote use of this new feature and to account for the simplicity principle. The function of adding a track to a playlist is through the “Add to Favorites” alongside every track (Fig2). This allows us to transfer the track information in the URL when performing the implementation of adding a track to the playlist. In addition, it further allows for convenience, simplicity and usability which is a important design principle.

Fig3 and Fig4 shows functionality directly in the playlist feature. Each page is assigned for 1 track and to navigate to the next track in the playlist, the arrows are used.

For each track in the playlist there is a media player which allows you listen to the track in the playlist without having to navigate to an external URL. This is quite an important feature for music libraries as the primary aim of such applications is for users to explore music. Thus, by adding an inbuilt media player that plays their favorited song we have provided one of the most important and fundamental features for this application

The first screenshot shows the 'Music Library' page with a navigation bar at the top containing links: Home | Register | Login | Tracks | Search | Favourites | Logout. Below the navigation bar, the page title is 'Music Library' and 'Favourites Playlist'. The main content area says 'Empty Playlist'. At the bottom, there are two green buttons: 'Browse Tracks to Add' and 'Search Tracks to Add'.

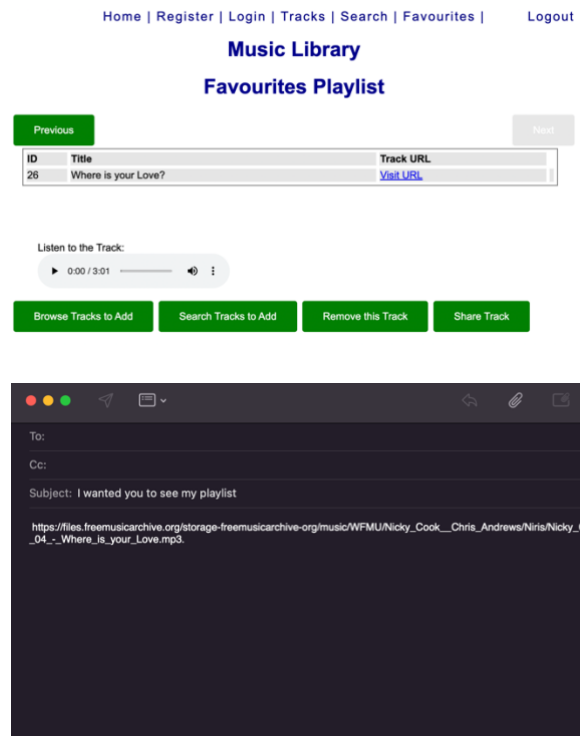
The second screenshot shows the 'Browse Tracks' page. It has the same navigation bar. Below the navigation bar, the page title is 'Music Library' and 'Browse Tracks'. The main content area is a table with columns: ID, Title, Album, Artist, Duration, and Track URL. The table contains 6 rows of tracks. To the right of the table, there are two green buttons: 'Next' and 'Last'.

ID	Title	Album	Artist	Duration	Track URL
2	Food	AWOL - A Way Of Life	AWOL	168	<a href="#">Visit URL</a>
3	Electric Ave	AWOL - A Way Of Life	AWOL	237	<a href="#">Visit URL</a>
5	This World	AWOL - A Way Of Life	AWOL	206	<a href="#">Visit URL</a>
10	Freeway	Constant Hitmaker	Kurt Vile	161	<a href="#">Visit URL</a>
20	Spiritual Level	Niris	Nicky Cook	311	<a href="#">Visit URL</a>
26	Where is your Love?	Niris	Nicky	181	<a href="#">Visit URL</a>

The third screenshot shows the 'Favourites Playlist' page. It has the same navigation bar. Below the navigation bar, the page title is 'Music Library' and 'Favourites Playlist'. The main content area shows a single track in a table with columns: ID, Title, and Track URL. The track is 'Food' with the URL '[Visit URL](#)'. Below the table, there is a media player with the text 'Listen to the Track:' and a progress bar showing '0:00 / 2:47'. At the bottom, there are four green buttons: 'Browse Tracks to Add', 'Search Tracks to Add', 'Remove this Track', and 'Share Track'.

and applications like this. Next in Fig3 and Fig4 we can also see the “Remove the Track Button”, which removes a specific track from the playlist. The main reason for this is practicality and allowing this system to be as dynamic as possible.

The final sub-feature that we will discuss in relation to the playlist feature is the share track feature. This allows the user to share the track via email to any of their contacts. We decided to go with a share track feature, as the chances of someone enjoying every song in another playlist is rare. However, the likelihood of enjoying some songs in someone’s playlist is not rare and thus more realistic. As such a track can be shared and added accordingly to another person’s playlist.



## PRINCIPLES AND PATTERNS FOLLOWED

### Single Responsibility Principle

Even though the new playlist feature requires users to search/browse through tracks to add them, we have separated the classes of these two functions. One class/method is solely dedicated to searching for tracks, another for browsing for tracks and another for adding desired tracks to the favorite’s playlist. Thus, responsibilities of each class is limited, thereby adhering to the Single Responsibility Principle.

### Application of Repository Pattern

Designed an interface for querying about all the data required to form the playlist feature.