



## Test Plan:

### Unit Test for Player Class

- Test when user loads a playlist then player has a list of songs ready.
- Test when user presses the play button and there is a song to play, then it will play that song.
- Test when user pauses a song that is playing, then the song is paused.
- Test when user presses stop, that song is removed from queue.
- Test when user presses next, and there is another song on list, then next song is played
- Test when user presses previous, and there is another song on list, previous song is played.
- Test when user seeks position within a song that is valid, then right part of song is played.
- Test when user seeks a position with a song that is invalid, throw an exception
- Test when user toggle shuffle is enabled, that it is disabled.
- Test when user toggle shuffle is disabled, that it is enabled.
- Test when user toggle repeat is enabled, that it is disabled.
- Test when user toggle repeat is disabled, that it is enabled.

### Unit Test for Playlist Class

- Test when user adds a Song to a playlist, verify song is added to list.
- Test when a user removes a song from a playlist, verify song is removed from list.
- Test when a user check is empty, returns true when playlist is empty.
- Test when a user check is empty, returns false when playlist has songs.

### Unit Test for Song

- Don't need test cases for the getters.

### Unit Test for Library

- Test when user searches by title, and songs are found, then return list of songs.
- Test when user searches by title, and songs are not found , then return empty list.
- Test when user searches by artist, and songs are found, then return list of songs.
- Test when user searches by artist, and songs are not found , then return empty list.
- Test when user searches by album, and songs are found, then return list of songs.
- Test when user searches by album, and songs are not found , then return empty list.

## Integration tests

### “Happy Path User Plays a Song from Playlist using Player”

- Create Library out of 10 Song objects.
- Add one Song from Library into the Playlist
- Use Player to load Playlist
- Call the play method on Player class to play Song

“User Removes Song from Playlist”

- Create Library out of 10 Song objects.
- Add multiple Songs from Library into the Playlist
- Verify list of Songs in Playlist is correct.
- Remove a Song from Playlist.
- Verify list of Songs is updated correctly.

“User searches for Song by artist and finds result”

- Create Library out of 10 Song objects.
- Search by artist that exists in our Library
- Verify that search results are valid.

### Implementation Plan

Scope of Work	Dependencies
Create Song Class	None
Create Library Class	Song Class
Create Playlist Class	Song Class
Create Player Class	Playlist Class, Song Class
Integrate Library into App	Song Class, Library Class, Playlist Class, Player Class.