Tremeloo - Spotify Music Suggestions
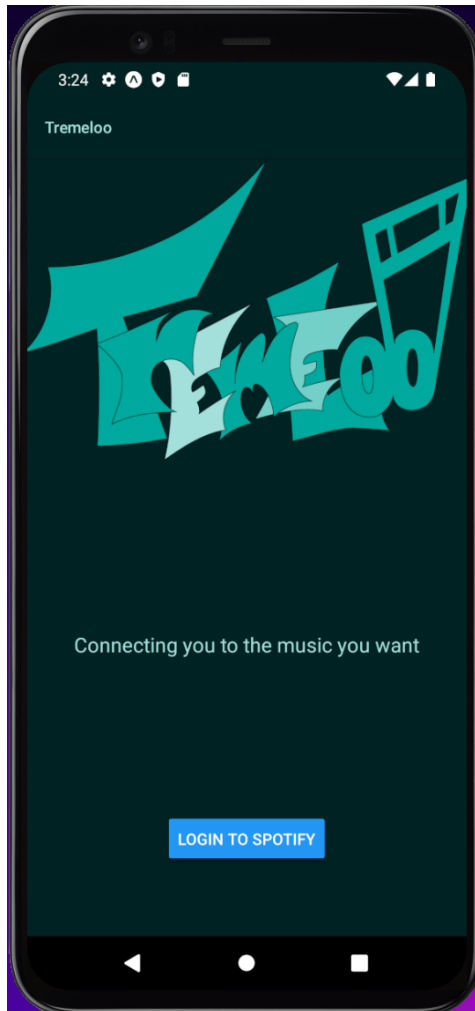(Draft)

Project Description

Tremeloo is a mobile application implemented with JavaScript and TypeScript utilizing React Native components and Spotify API endpoints. The app receives data from a user's Spotify account and displays their playlists. The app will then be able to parse Spotify's database of music and suggest music tracks based off the content in each individual playlist.
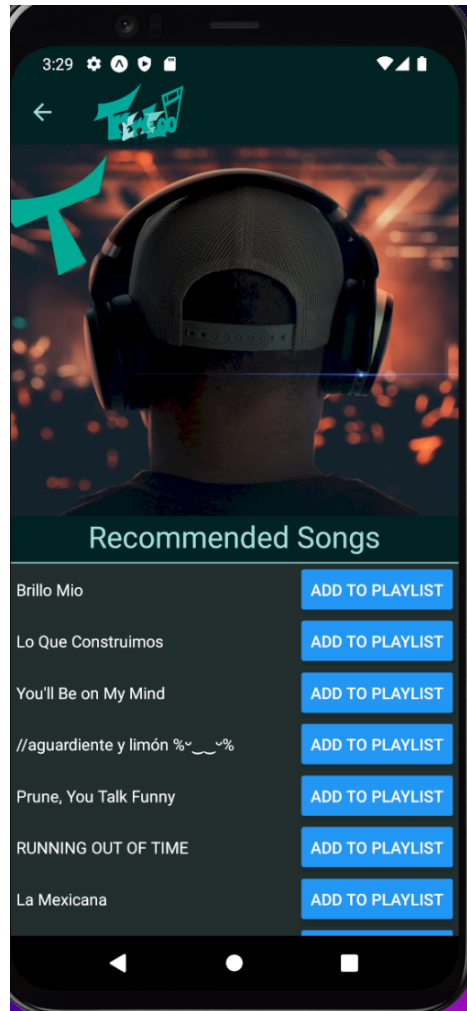
Introduction

The development of the Tremeloo application is implemented using TypeScript for the backend and JavaScript for the front end. React, React Native, React Navigation and Expo web browser libraries are used in developing both the UI and Backend. The expo web browser library is used to help with the authentication process with Spotify API. The following Gantt chart reflects the scope of the entire project process.

Gantt Chart

Project Name: Spotify Music Suggestions
Report Date: 4/6/2023

Deliverable	Tasks	Assigned To	01/12	01/19	01/26	02/02	02/09	02/16	02/23	03/02	03/09	03/16	03/23	03/30	04/06	04/13	04/20	04/27
								Milestone #1				Milestone #2					
Requirements	Meet with group	All	8	8														
	Assign roles	All				2												
	Define requirements	Mark, Vincent			2	2	2											
	Review requirements with group	All				3	1											
Research	React-Native documentation	All			4	4												
	Spotify API documentation	All			4	4												
Project Design	Define tech required*	All				2	2											
	Discussion of the flow of the app (ERD concept design)	Khemrind, Vincent				2	4											
	Create UI concept of the flow of the app	Leiko, Vincent				2	4											
	Access Spotify Database	Khemrind, Leiko					4	2										
	Integrate with user / user data	Khemrind, Leiko						6	8									
	Develop music recommendation algorithm	All						5	10	10								
	Update playlist following recommendations	Khemrind							10	10								
	Develop working prototype	Khemrind, Leiko							15	15	5							
	Test prototype	All								4	4	2						
Development	Review prototype design	All									2	2	2					
	Rework requirements	All											6	6	6	6		
	Document changes	Mark														3	4	
	QA Testing	All													5	5	5	
	Total work hours	249	8	8	10	21	17	13	43	39	11	4	8	10	19	18	16	

Legend

Planned	
Delayed	
Number	Work: man hours

UI Design

Login Page

Recommendation Page

Software Requirements Specification (Results)

		requirement	success	fail	comments
gain access to user's spotify account		send request for user aurthorization			
		send request for access token			
		send request for refresh token (when token expires)			
load and display list of user's playlists		send get request for list of user's playlist			
		display list of playlists			
		display playlist cover image			
		display list name			
load and display list of recommended songs		send get playlist request			
		pass MD into reccomendation algorithm			
		display returned list of song names			
		send POST request for chosen song by user			
		access MD from each song within given playlist			
		access Spotify song DB			
		compare MD of user's playlist songs to MD of Spotify DB			
		generate list of songs matching MD criteria			
		add reccomended song to user playlist			Currently in the process of implementing this functionality
		UI Design Suggestions			
		Tremeloo logo image is cut off in navigation menu			
		display image for recommended songs			
		change add to playlist button to a + symbol in a box			

Conclusion

Our group is content with the current state of progress with our project. Moving into the next few weeks, we plan to discuss implementation of these UI design suggestions as well as completing the last objective in our test plan specification.