Team #16
Michael Con
Alex Richardson
Aleksei Natalenko
Pratham Agrawal
Thomas Hynes

Problem Statement:
With the advent of music streaming through platforms like Spotify and Youtube, the amount of music we consume as a society has drastically increased in the past decades. Furthermore, the internet has allowed people to listen to a variety of music, different from how it used to be when everyone listened to the same radio or TV channels with the same music.Melody capitalises on this growing trend by incorporating a social aspect to how we experience and share music among our friends. The closest real-world comparison to our project would be the Spotify wrap-up that occurs only once a year and the new BeReal application with its once-a-day social feature.

Project Objectives:
- Create a mobile app for both Android and IOS for Melody that utilizes Spotify's (and potentially other music streaming services) open software APIs to extract listener information and link users to song samples on Spotify.
- The app will support Sign Up and Login function functionalities. Without the accounts, users cannot use the app.
- The app will allow users to share music in a BeReal format once every day
- Users will be able to click on their friends' profiles and check their music history, favourite genre, most played songs, favourite albums, and favourite artists.
- Users will receive recommendations based on what their friends listen to.
- There will be an in-app chat functionality where friends can text each other.
- Users will receive a daily notification to share a song with their friends.

Stakeholders:
Users: The target demographic of users is younger people age range ~13-35 who engage with social media platforms.
Developers: Michael Con, Alex Richardson, Aleksei Natalenko, Pratham Agrawal, and Thomas Hynes
Project Coordinator: Sayali Kate
Project Owners: Michael Con, Alex Richardson, Aleksei Natalenko, Pratham Agrawal, and Thomas Hynes

Project Deliverables:
Although still early in the development of Melody, here are the core features that we are looking to implement.

1. Front End will include a mobile app, where users can interact with their friends' profiles, text each other, and share music. It will be created using the Flutter framework and Dart language that will allow us to deploy on both IOS and Android.
2. Back-End will be built with Firebase Firestore and Firebase Realtime Database.
    a. Firebase Firestore will store users' data.
    b. Firebase Realtime Database will allow users to text each other and share links to songs.
3. To retrieve data about songs and users' analytics data, we will use Spotify Web API which is a free resource that Spotify provides to developers.
4. Google Cloud Functions will be used for sending out notifications. A daily universal notification where every user will post a song into their timeline and other users can listen to it.