

COSC2659 - iOS Development - Assignment 1

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I. Introduction

In my spare time, my two main hobbies are coding and music. I was always fascinated by the combination of coding and sound when I was little. The desire to learn more about how sound works in programming motivates me to expand my expertise in this area. But, as any project begins with a small foundation, a music player in iOS is an excellent opportunity for me to start audio programming.

II. The Flow App

Flow is a minimal iOS music player that has a simple interface that focuses on enjoying your favourite music.

From the homescreen, users can easily identify Flow due to its icon. This icon is designed by myself. The icon represents the music is a flow that can be shaped to many different forms, music can be chill, can be positive, can be energetic or even sad.

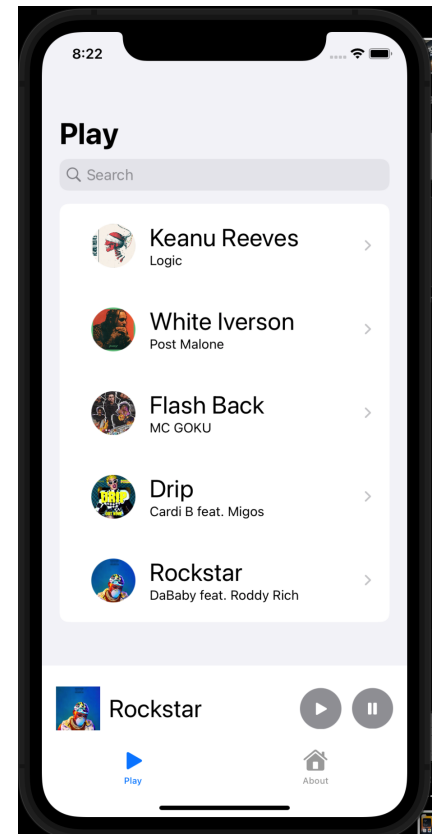


Flow has a tab view (extra feature) on the bottom of the screen to navigate between Play and About tab.



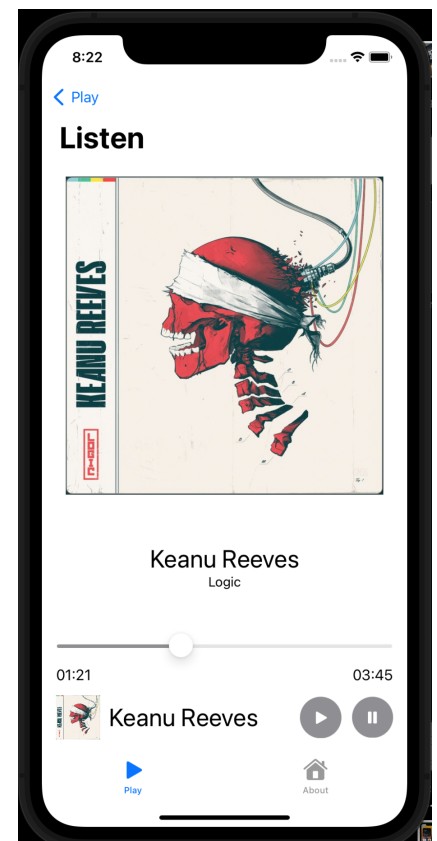
The main interface of the **Play** tab includes:

- Search bar for searching songs by title (extra feature)
- Song list built by SwiftUI List, sample songs that are used in this project:
 - Keanu Reeves [1]
 - White Iverson [2]
 - Flash Back [3]
 - Drip [4]
 - Rockstar [5]
- Song row with rounded image, song name and artist
- A minimised player with play button, pause button, current song's title, song's cover - users can tap the image to navigate to the full size player. (extra feature)

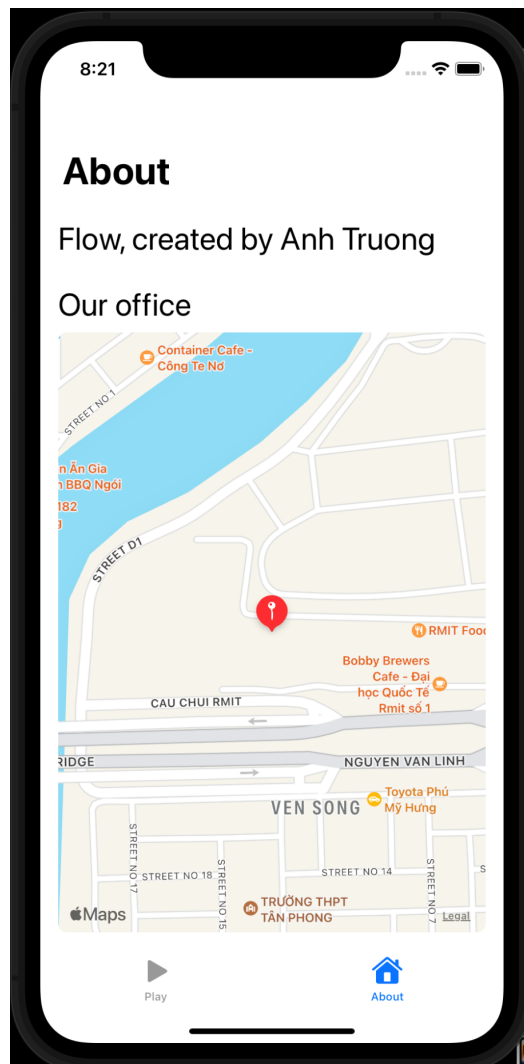


When users tap a song, that song will be loaded to the audio player, the view will be changed to a detailed view of that song. The song **Detailed view** includes:

- A back button to the main view
- A song cover, song title and artist
- A song slider - user can slide to adjust current time of the song (extra feature)
- A song duration indicator (extra feature)
- A play/pause button (extra feature)
- Audio player can be played in the background (extra feature)
 - when users quit the app or turn off the phone, this feature works best on a real device due to the audio routing behind the Simulator might cause glitchy audio despite turning on background audio in the project settings (this bug belongs to Apple and it occurs on some devices).



The main focus of the **About** tab is to introduce the app creator's information such as name and location (with a map that has marker and auto zoom at the pin on first load)



Demo video:

<https://youtu.be/kXnua3kWTLk>

III. Future Development

In the future, adding a database will be an important part of this application, as will providing create, update, and delete features. Instead of manually entering data into the database, the development team can construct a program that will scrape data from the Internet and insert into the database. We can also take this project further by adding sound adjustment features like EQ, reverb, panning, and effect to tune the music so that the sound will fit each user's taste.

IV. References

- [1]Logic , *Keanu Reeves*. Maryland: BobbyBoy Records, 2019.
- [2]Post Malone, *White Iverson*. New York: Republic, 2015.
- [3]MC GOKU, *Flash Back*. Ho Chi Minh City: MC GOKU, 2020.
- [4]CardiB and Migos, *Drip*. New York: KSR, 2018.
- [5]DaBaby, *Rockstar*. California: Interscope, 2020.