

# Accio Songs, Music Information Search Engine

## PotterHeads – Project Progress Report

Kushagra Soni - Virginia Atieh

soni14

vquiros2

### Progress

Task	Estimated Time (hours)	Estimated Completion
Design UI	5	90%
Resource Identification	5	95%
Assembling Collection	5	100%
Design Search and Mining Engine	10	100%
Develop Search and Mining Engine	10	10%
Develop UI	10	5%
Integration of UI with Engine	5	5%
Testing	10	5%
<b>Total</b>	<b>60</b>	<b>~45%</b>

- Resource Identification - Finalized the Technology Stack we will be using to develop the project.
  - o Programming Language:
    - Python, JavaScript, HTML
  - o Frameworks:
    - Flask
    - CSS
  - o Tools:
    - Elastic Search
    - Elastic App Search
  - o APIs:
    - Artist and Track
      - Genius API
    - Track and Audio URLs:
      - Last.fm API
      - Spotify API
    - Lyrics:
      - MusixMatch API
      - Lyrics.ovh API
    - Video URLs:
      - YouTube API

- Collection
  - Due to our use of Elastic App Search to create our search engine, our corpus will be assembled continuously as the number of queries executed by the user increases.
- Design & Development of Search Engine
  - A preliminary search engine has been generated through Elastic App Search.

Name	Created	Documents	Fields	
my-music-search	November 7, 2021	0	1	Manage

Figure 1 - Search engine created through elastic app search

Figure 2 - Basic HTML page for searching

justin beiber Search

Select Search Type:

☒ Artist  
☐ Track  
☐ Lyrics

**Data Found**

Karaoke Backing Tracks Band Feat. Justin Beiber) [Karaoke Backing Track] Next To You (in the Style of Chris Brown)	<b>Karaoke Backing Tracks Band Feat. Justin Beiber) [Karaoke Backing Track] Next To You (in the Style of Chris Brown)</b>	Justin Hao Ren - Original
Justin Hao Ren - Original	JUSTIN BEBER The Feeling - EDM Remix	JUSTIN BEBER The Feeling - EDM Remix
Justin Bird Precious Memories	Justin Karpel I. Get in the Fcuking Box!	Justin Nault Unconditionally
Justin Mayer So Cool, Pt. II		

Figure 3 - Results displayed after search

- Design for UI

artist name Search Artist

Image Name Bio : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Top 10 Tracks

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Figure 4: Artist Search, Result Selection Made

abcde.. Search Artist Track Lyrics

Image Track Name  
Album  
Artist

Image Track  
Album  
Artist

Image

Image

Image

Image

Image

Image

Figure 5: Track Search, Results Displayed

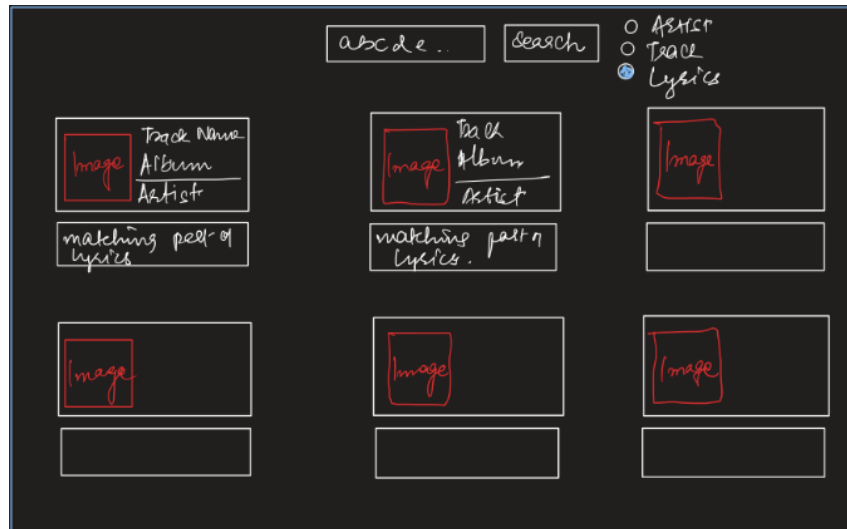


Figure 6: Lyrics Search, Results Displayed

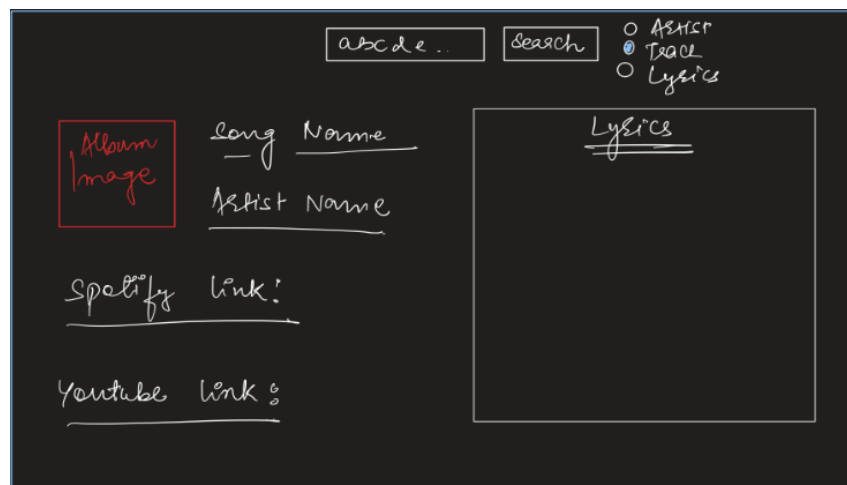


Figure 7: Track Selection Made

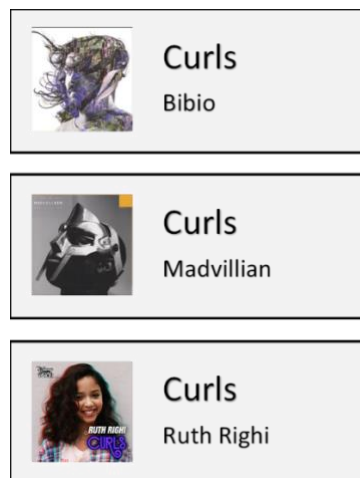


Figure 8 - Potential Layout for Track Results

## Remaining Tasks

- Implement user interface design and integrate design with search tool.
  - Adjust layout and styling as needed throughout implementation process.
- Developing the various API connectors to fetch Artist, Track and Lyrics data.
- Continue testing and fine-tuning search parameters to optimize the user's experience.

## Challenges

- Resource Identification
  - No suitable API found for guitar chords; web scraping could be an option.
- Develop UI
  - Track and video streaming may affect application performance; Simply the URL may be provided instead.