



# Welcome to LOVIFY

Share the love of music with LOVIFY

Play

Follow

...



Welcome



Problem



Solution



Project Layout



Our Team

Zodiac  
ClassificationRecommendation  
System

User Similarity



Pricing

Future  
Implementation

# Our Team



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Mentor



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# Problem



- Society seems to be 'turning inward'
- It has become difficult to form meaningful connections
- A lot of current social platforms encourage superficiality

Play

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# Solution



LOVIFY

Platform for Music Lovers



Welcome



Problem



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Overview



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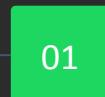


Pricing

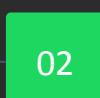
Future  
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+8 ...

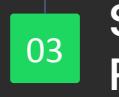
# LOVIFY Overview

**User's Spotify****User Zodiac  
Classification**

01



02

**User's Song  
Similarity****Users Match****Song  
Recommendation**

03



Welcome



Problem



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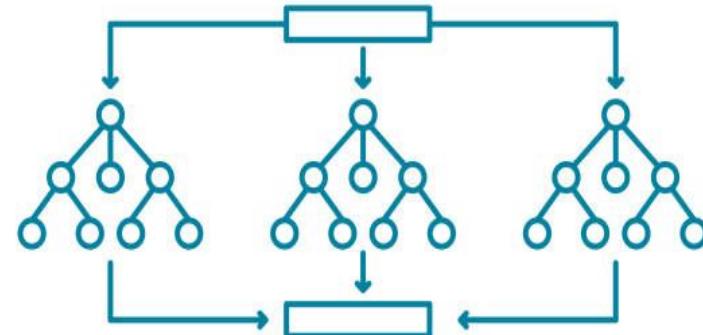
User Similarity



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# Zodiac Classification



Collect Data  
using Spotify  
API

Algorithm  
Selection

[Play](#)[Follow](#)

...

star_sign	playlist_name	album	artist	track_name	track_id	danceability	energy	key	loudness	mode	speechiness	instrumentalness	liveness	valence	tempo	duration_ms	time_signature
Aries	Aries	Begin	LION BABE	Treat Me Like Fire	3XRosKfSgFDl6YVpApI	0.671	0.65	6	-7.687	1	0.0665	0.0057	0.6	0.323	91.961	250707	4
Aries	Aries	Starboy	The Weeknd	Starboy	7MXVkk9YMcIzQd1Srtv4MB	0.679	0.587	7	-7.015	1	0.276	6.35E-06	0.137	0.486	186.003	230453	4
Aries	Aries	The Dutches	Fergie	Clumsy	50xeLNGKmskrnYUSInNhqfa	0.731	0.563	2	-4.046	1	0.131	0.000423	0.296	0.452	184.004	240427	4
Aries	Aries	Wiped Out!	The Neighbourhood	Daddy Issues	5E30LltzQTGqRvNdz7l6KG5	0.588	0.521	10	-9.461	1	0.0329	0.149	0.123	0.337	85.012	260173	4
Aries	Aries	Born This Way	Lady Gaga	Judas	0QkWlkH5ZJU0f79T9uf6c	0.661	0.937	10	-3.83	0	0.0744	1.59E-05	0.355	0.535	131.001	249067	4
Aries	Aries	"Awaken, My Love!"	Childish Gambino	Redbone	0WIDGnWLZKmCk0ml1Gpwz	0.745	0.353	1	-10.614	1	0.0983	0.00662	0.118	0.598	160.111	326933	4
Aries	Aries	Hyperion	Gesaffelstein	Lost in the Fire (feat. The Weeknd)	2vXKRJUBxOcvZYTdNeckS	0.658	0.671	2	-12.21	1	0.0363	0.000927	0.115	0.166	100.966	202093	4
Aries	Aries	HOPE	NF	HOPE	12cZWGf5zLkUbeW9Imx5q	0.546	0.787	0	-4.023	0	0.212	0.0	0.0619	0.497	100.559	264473	3
Aries	Aries	Red Ruby Da Slease	Nicki Minaj	Red Ruby Da Slease	4ZYAU4A2YBtINdqOUtc7T2	0.696	0.733	1	-6.181	1	0.256	0.0	0.111	0.292	98.355	214445	4
Aries	Aries	WHEN WE ALL FALL ASLEEP, WHERE DO WE GO?	Billie Eilish	bad guy	2Fxmhks0bxG5BdJ9vM42m	0.701	0.425	7	-10.965	1	0.375	0.13	0.1	0.562	135.128	194088	4
Aries	Aries	Fearless	Jazzmine Sullivan	Bust Your Windows	56z2ql0gKcPthQF6BAW3E	0.683	0.664	5	-4.233	0	0.0332	0.0	0.0671	0.866	106.991	266307	4
Aries	Aries	Teatro d'ira - Vol. I	Måneskin	I WANNA BE YOUR SLAVE	4pt5fDVtg5GhEvEtz9dKk	0.75	0.608	1	-4.008	1	0.0387	0.0	0.178	0.958	132.507	173347	4
Aries	Aries	No Love Lost (Deluxe)	Bixst	Chosen (feat. Ty Dolla \$ign)	1dWPXMx4kRHjDz2DSitUQ	0.571	0.767	2	-5.16	1	0.287	0.0	0.0809	0.605	93.421	161684	4
Aries	Aries	Blood Sugar Sex Magik (Deluxe Edition)	Red Hot Chili Peppers	Under the Bridge	3d9DChrd6B0eFsbrZ3ls0	0.559	0.345	4	-13.496	1	0.0459	0.000105	0.141	0.458	84.581	264307	4
Aries	Aries	Only By The Night	Kings of Leon	Sex on Fire	0ntQJM7bwzOLveCUAW7Y45	0.542	0.905	9	-5.653	1	0.054	0.0104	0.136	0.374	153.399	203347	4
Aries	Aries	Loud (Japan Version)	Rihanna	S&M	7ySUcLPVx7KudhnmNcgY2D	0.769	0.684	1	-5.019	1	0.0411	0.000125	0.0887	0.835	127.972	243600	4
Aries	Aries	Konvicted	Akon	Smack That	2kQuhkFX7vSeVpCD3h2gg5	0.939	0.742	5	-5.171	0	0.0467	0.0	0.107	0.924	118.978	212360	4
Aries	Aries	Deep Down (feat. Never Dull)	Alok	Deep Down (feat. Never Dull)	7MiHudNjtta0nDmC5nBC1fb	0.687	0.818	0	-4.221	1	0.0778	0.0	0.248	0.886	125.952	165753	4
Aries	Aries	Loose	Nelly Furtado	Maneater	4w14dJgrsONd6Ks21dM	0.796	0.777	6	-4.81	1	0.0397	0.000358	0.121	0.787	132.722	258893	4
Aries	Aries	MONTERO	Lil Nas X	INDUSTRY BABY (feat. Jack Harlow)	5Z9KJZvQzH6PFmb8SNlxuk	0.741	0.691	10	-7.395	0	0.0672	0.0	0.0476	0.892	150.087	212353	4
Aries	Aries	Plastic Hearts	Miley Cyrus	Midnight Sky	4l2qxFEVUV8yOx8B8TCX	0.699	0.805	4	-5.535	0	0.0345	0.00177	0.249	0.232	109.976	223280	4
Aries	Aries	Cheese	Stromae	Alors on danse - Radio Edit	2GYHyAolWPkLuV4yOTVko	0.791	0.59	1	-9.206	0	0.0793	0.00203	0.065	0.714	119.951	206067	4
Aries	Aries	Tracy Chapman	Tracy Chapman	Fast Car	2M9ro2krNb7nr7HSprEgo	0.711	0.292	4	-15.523	0	0.037	0.0	0.131	0.194	103.951	296800	4
Aries	Aries	Goodbye Yellow Brick Road (Remastered)	Elton John	Goodbye Yellow Brick Road - Remastered 2014	4IRhwI2hzlhHTlCpRa5Rd	0.559	0.473	5	-7.712	1	0.0279	0.00141	0.154	0.397	121.227	192827	4
Aries	Aries	All Or Nothing	Jay Sean	Down	6cmmt1LMvZdB5zsCwX5BqfE	0.727	0.68	2	-4.498	1	0.0286	0.0	0.0821	0.728	132.012	121507	4
Aries	Aries	Born Sinner (Deluxe Version)	J. Cole	Power Trip (feat. Miguel)	2uwnP62VvmTovxSELooy	0.667	0.608	1	-7.054	1	0.216	0.000198	0.426	0.475	99.999	241160	4
Aries	Aries	Lose Control	MEDUZA	Lose Control	7CHi4DtF4kHeMIQuadCuHK	0.598	0.526	10	-8.659	0	0.0415	0.0	0.14	0.529	123.935	166387	4
Aries	Aries	Get You - Single	Daniel Caesar	Japanese Denim	1boXOLoua7N2icOUV1p9F	0.707	0.238	3	-8.818	1	0.0379	2.42E-06	0.0842	0.345	124.156	270847	3
Aries	Aries	Red (Taylor's Version)	Taylor Swift	Red (Taylor's Version)	4OAuvHryV4kMDN5LUpP6	0.516	0.777	1	-4.908	0	0.0375	1.62E-06	0.0761	0.408	125.047	223093	4
Aries	Aries	Raisel	Earth, Wind & Fire	Let's Groove	3koCCeSaUyvRo3n2ghRd8	0.869	0.648	11	-8.698	0	0.0633	2.17E-05	0.126	0.9	125.035	339320	4
Aries	Aries	The Beginning	Black Eyed Peas	Just Can't Get Enough	3JA9Jaux4xgXKEawAdCp4	0.659	0.628	0	-8.685	0	0.179	0.0	0.105	0.262	94.005	219427	4
Aries	Aries	Views	Drake	Too Good	3BtullrQlkujPKuWF2B85z	0.794	0.653	7	-7.839	1	0.104	4.88E-05	0.1	0.397	117.996	263373	4
Aries	Aries	H2O	Daryl Hall & John Oates	Maneater	7j74ucZ59vnG67pe2zCY	0.724	0.498	11	-13.083	0	0.0423	8.56E-05	0.0761	0.823	88.825	273173	4
Aries	Aries	Spirit	Leona Lewis	Bleeding Love	7wZLNB80emZtsd1CGkbXE	0.638	0.656	5	-5.886	1	0.0357	0.0	0.146	0.225	104.036	262467	4
Aries	Aries	DEMIDEVIL	Ashnikko	Slumber Party (feat. Princess Nokia)	11zulcYY4lwvvCm4oe3J	0.964	0.398	11	-8.891	0	0.0795	3.95E-05	0.101	0.563	105.012	178405	4
Aries	Aries	channel ORANGE	Frank Ocean	Pyramids	4QhWbupnIdd44Edtnh2bFJ	0.4	0.65	5	-6.104	0	0.0466	7.62E-05	0.791	0.15	107.989	592920	4
Aries	Aries	Matangi	M.I.A.	Bad Girls	6nzXkCB0hb2nxnlnQobb	0.639	0.912	1	-2.621	1	0.0615	0.0	0.097	0.343	143.448	227520	4
Aries	Aries	Flaming Hot Cheetos	Claire	Flaming Hot Cheetos	1F6lbA7d42uPc3cf8PXV	0.817	0.551	7	-9.33	0	0.133	0.000151	0.101	0.142	109.966	123884	4



Self Care  
Mac Miller



0:23

-3:25



• • •



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User Similarity



Pricing



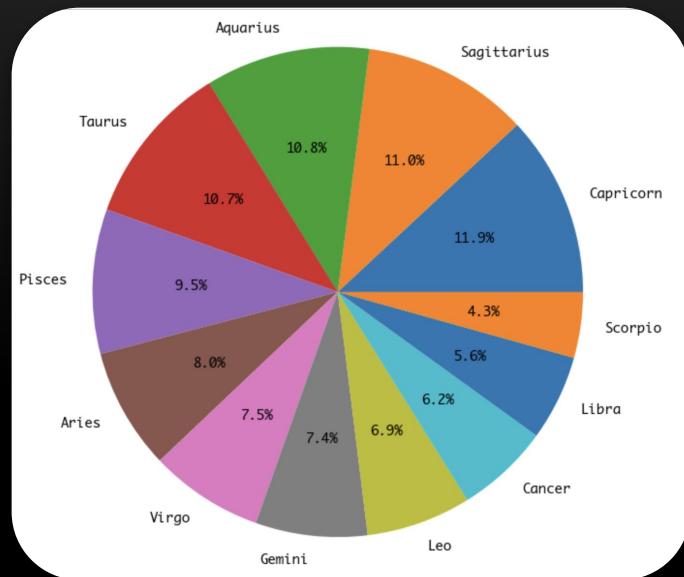
Future  
Implementation



## Hyperparameter Tuning



## Results



See You Again

Tyler The Creator, Kali Uchis



0:23

-3:25





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# User Similarity via KNN

## Why?

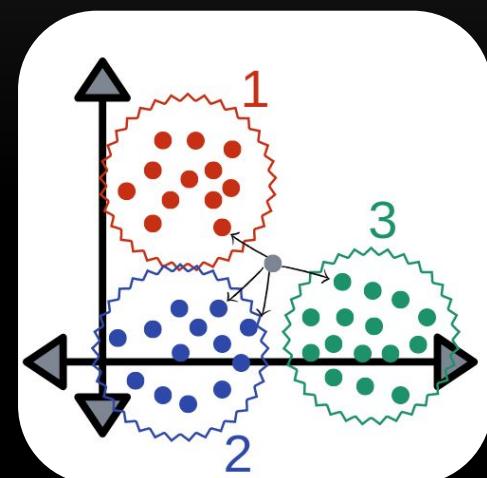
**Data Processing** — feature aggregation into 'preference profiles'

## KNN Results & Next Steps

**KNN Shortcomings** — aggregation function vs time complexity issue

**Future Iterations** — use of KD or Ball trees to support more complex aggregation function

**Conclusion** — Improvements impending



KNN classification [ [Medium](#) ]

GeForce Experience

Screenshot

Instant Replay

Record

Broadcast LIVE

Performance

Gallery

Liked Songs

Rap Caviar but it's actually ...

old gold

low volume tunes

drive slow

RapCaviar

Run Far

chill

FOREIGN

This is Frequency

# TITLE ALBUM

1 Will I See You Again? Thee Sacred Souls 4:01

2 Let Me Go Baltimore It Ain't Where You Been 5:04

3 Overture Of Foxy Brown Willie Hutch Foxy Brown 0:58

4 It'll All Be Over Supreme Jubilees It'll All Be Over 3:05

5 It's A Man's, Man's, Man's World James Brown & The Famous Flames It's A Man's Man's Man... 2:47

6 I Want You - Single Version Marvin Gaye I Want You (Deluxe Editi... 3:37

7 No One Can Love You More Phyllis Hyman The Legacy Of Phyllis H... 4:21

8 u don't know my name Kid Travie u don't know my name 3:28

WILL I SEE YOU AGAIN?

Will I See You Again? Thee Sacred Souls

1:00 4:00

Version Control Run TODO Python Console Problems Terminal Services

Shared indexes for Python package "openpyxl==3.1.2" are downloaded (420.50 kB in 289 ms) (10 minutes ago)

1:1 CRLF UTF-8 4 spaces Python 3.11 (AIM-SP2023)

Search

Recording has started

Connect with Facebook to see what your friends are clapping.

Friend activity

[Upgrade](#)

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Pricing

Future  
Implementation**blond**

Nights

Frank Ocean



0:57

-3:25

# Song Recommendation System

**Top 50  
Recently Liked  
Songs****Uses up to 12  
unique features****Database of  
600k+ songs****Cosine Similarity**

•••



Upgrade

UTD AIS ▾



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Implementations

# Future Implementations



# Demo



Despacito

Luis Fonsi, Daddy Yankee



0:23

-3:25



# Thank You



Boys a liar Pt.2  
PinkPantheress, Ice Spice ❤

0:23



-3:25