



13 Weeks of Spotify Discover Weeklys

Uncovering What Spotify
“Thinks” I Want to Listen to

By: Janelle Hector

Spotify

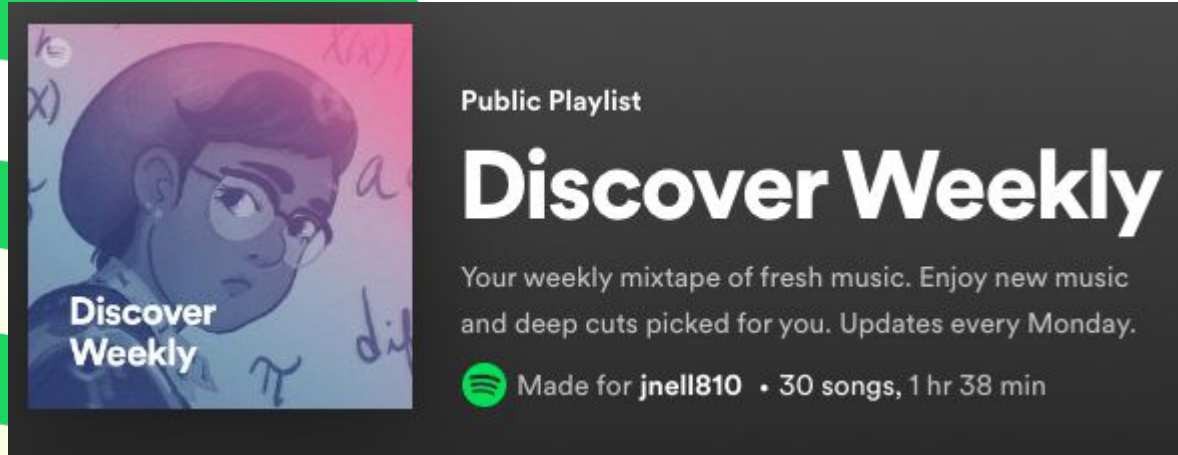
Spotify is audio streaming and media service founded in 2006. It is one of the largest music streaming platforms with almost 500 million active users.

Spotify has channels that link directly to the user's profile. One specifically is "Discover Weekly"

-wikipedia



Discover Weekly



“Every Monday, Discover Weekly gifts 200 million Spotify users with a playlist of thirty songs they’ve never heard before.”

– The Medium.com

Most importantly:

The 30 songs that Spotify recommends to you through your Discover Weekly is based on an algorithm based on your listening behaviour. That includes likes, dislikes, items on your playlists, number of plays, which artists you follow, etc.

Why I chose to track and rate my Discover Weekly Songs

In 2021 and 2022, I tried to listen to my Discover Weekly consistently. However, I found that the songs that I listened to didn't align with the music I listened to most. Each week, I would consistently and actively dislike songs.

I thought that if I could evaluate all of the Discover Weeklys for a certain time period, I could see a pattern appear:

1. What genres / artists Spotify recommends
2. The ratio of liked / disliked songs

The Goal:

By the end of the year, I'd like to have a Discover Weekly in which the ratio of "Liked" to "Other" songs is at least 30%

(optimistically that's about 10 songs out of 30)


$$\frac{10}{30} !$$

Preliminary Data:

Number of weeks: 13

Number of Songs: 390

30 new songs every week



Categories / Rating Metrics

“Liked”

songs that I generally liked but did not add to a playlist. I also did not “like” them (press the heart button) on Spotify

“Added”

Songs that I added to my “New: Jan - Mar” playlist

“Disliked”

Songs that I listened to all the way through but actively disliked. (I would also try to click the dislike button on the Discover Weekly playlist)

“Skipped”

Songs that I did not listen to all the way through for various reasons (mostly dislike)

The Method:

Use Google Sheets and an extension of an API connector to pull three main data from my Discover Weekly:

- The datetime it was added
 - This enabled me to automate the API connector to automatically update the sheet every monday at 1 am and populate my chart with new songs
- The artist name
- The track name

Tools:

Spotify Premium (not needed)

Google Sheets

Spotify Web API (Spotify lets developers use code and pull info to create their own applications, with some limitations)

API connector (Extension with Google Sheets)

The API Connector

The API connector used code and Spotify's Web API to

- connect my specific Discover Weekly linked to my account
- Pull whatever information I wanted it to
- Populate the Google sheet with the info in a data table

The screenshot shows the 'API Connector' application window. It has three tabs: 'Requests', 'Create', and 'Schedule'. The 'Requests' tab is active, displaying the 'CONFIGURE API REQUEST' section. This section includes fields for 'Application' (set to 'Custom'), 'Method' (set to 'GET'), and 'Request URL' (a Spotify API endpoint). Below these is the 'OAuth' section, which shows a connection to 'Spotify' as 'Connected'. The 'Headers' section contains a table with 'content-type' set to 'application/json'. At the bottom, the 'OUTPUT SETTINGS' section shows the 'Destination sheet' as 'Reference' and 'cell' as 'A1', with a 'Set current' button and an 'Output options' button.

Key	Value
content-type	application/json

Destination sheet
Reference

cell A1

Output options

Spotify Discover Weekly Updates every Monday at 12 am
(sometimes 1 am)

I knew I could schedule the API to update every Monday. I also wanted to set up the spreadsheet so I could program it then leave it to update it on its own. But the problem was that the songs wouldn't show up until Monday.

Date added

1 week ago

	A	B	C	D	E	F	G
1	href	items.added_at	items.track.album.artists.1.name	items.track.album.artists.1.type	items.track.album.name	—	
2	https://api.spotify.com/v1/playlist-tracks/37i9dJDP2s5F8149aF8434	2023-04-03T04:00:00Z	CIB	artist	Fanfiction	2023-04-03T04:00:00Z	
3		2023-04-03T04:00:00Z	Peach Rings	artist	1983 Lisa		
4		2023-04-03T04:00:00Z	Charli XCX	artist	CRASH	2023-04-03T04:00:00Z	
5		2023-04-03T04:00:00Z	Against Me!	artist	Transgender Dysphoria Blues		
6		2023-04-03T04:00:00Z	Dave Malloy	artist	Octet (Original Cast Recording)	2023-04-03T04:00:00Z	
7		2023-04-03T04:00:00Z	Bleachers	artist	Take the Sadness Out of Sorrow		
8		2023-04-03T04:00:00Z	Caroline Kingsbury	artist	Heaven's Just A Flight	2023-04-03T04:00:00Z	
9		2023-04-03T04:00:00Z	The Linda Lindas	artist	Claudia Kishi		
10		2023-04-03T04:00:00Z	Marisa Maino	artist	jenny	2023-04-03T04:00:00Z	
11		2023-04-03T04:00:00Z	ggwendolyn	artist	my year of rest & relaxation	my year of rest & relaxation	34
12		2023-04-03T04:00:00Z	COIN	artist	How Will You Know If You Need Me	Hannah	44
13		2023-04-03T04:00:00Z	The Yellow Dress	artist	Faint Music // Ordinary Light	Tummy in the Blood	25
14		2023-04-03T04:00:00Z	Sophie Holohan	artist	Cognitive Dissonance	Cognitive Dissonance	61
15		2023-04-03T04:00:00Z	Dressy Bessy	artist	Pink Hearts, Yellow Moons	Just Like Henry	31
16		2023-04-03T04:00:00Z	Thao	artist	Temple	Marrow	32
17		2023-04-03T04:00:00Z	Nasty Cherry	artist	The Movie	All in My Head	39
18		2023-04-03T04:00:00Z	Laura Stevenson	artist	The Big Freeze	Dermatillomania	32
19		2023-04-03T04:00:00Z	Soccer Mommy	artist	Clean	Scorpio Rising	13
20		2023-04-03T04:00:00Z	Joey Contreras	artist	Young Kind of Love	Ohio	25
21		2023-04-03T04:00:00Z	Peach Fuzz	artist	Shaking the Can	Shaking the Can	36
22		2023-04-03T04:00:00Z	Lady Gaga	artist	The Fame	Summerboy	42
23		2023-04-03T04:00:00Z	Transviolet	artist	Born to Rule	Don't Say You Love Me	31
24		2023-04-03T04:00:00Z	L Devine	artist	Peer Pressure	Daughter	35
25		2023-04-03T04:00:00Z	Laura Jane Grace	artist	At War with the Silverfish	Lolo 13	9
26		2023-04-03T04:00:00Z	Brie Larson	artist	Finally Out Of P.E.	She Said	25
27		2023-04-03T04:00:00Z	Jensen McRae	artist	Are You Happy Now?	White Boy	32
28		2023-04-03T04:00:00Z	yeemz	artist	Life's Got A While	Life's Got A While	25
29		2023-04-03T04:00:00Z	Diva Bleach	artist	Beaches	Beaches	35
30		2023-04-03T04:00:00Z	Stepdad	artist	Ordinaire EP	Parrot	36
31		2023-04-03T04:00:00Z	FLETCHER	artist	Cherry (feat. Hayley Kiyoko)	Cherry (feat. Hayley Kiyoko)	58

The important formula:

```
=IF(Reference!$B2 =  
CONCATENATE(VLOOKUP(C$1,Dates!$A$1:$B$52, 2, false),  
"T04:00:00Z"),QUERY(Reference!$F2), "coming soon")
```

Finally, when all of the sheets could “communicate” with each other: I ended up with this final sheet, populated with songs and artists every week, Monday at 12 am

DWs: Jan - Mar

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1		Week 1			Week 2			Week 3			Week 4			Week 5			Week 6		
2		NAME	ARTIST	REACTION	NAME	ARTIST	REACTION	NAME	ARTIST	REACTION	NAME	ARTIST	REACTION	NAME	ARTIST	REACTION	NAME	ARTIST	REACTION
3	1	Blown to Bits	Charly Bliss	added	Love to Keep Me	Laufey		Minnesota	Sania		I Want to Kiss	The Spook Sch	liked	joe,	Morgan Reese		Malibu	Trixie Mattel	liked
4	2	Woodland	The Paper Kites		Next to You	BoyChik		I Was An Idiot	John-Allison		ここだけの話	Chatmonchy		Song of Trouble	CARN		100%100%	Akira Fuse	
5	3	To The Bone	Sunny Copley		Little League	Conan Gray		iced tea for b	In Love With	added	You Signed Up	Maisie Peters		Really Want to	more*		LAYLA IN THE R	MICHELLE	added
6	4	Calling Card	ella jenne		100 Years from	Theo Katzman		One Liner	Mono Moon		Breezy Slide	Louie Zong		Moon Moon Baby	HOAX		All My Stars A	St. Vincent	liked
7	5	38/98	The Cast of Net	liked	Ireland	Liza Anne		Final Girl	Eva Rose		Until the End	Chloe Anent	liked	Roses	Genevra Munoz		I Hope It's Co	The Wrecks	
8	6	I'm not as fan	Drew Monson	skipped	Moon Like Sour	The Ophelias		Slay the Beast	Ariyel		Takin' It Back	Trellia		Beautiful Litt	Eva Westphal		BROOKLYN	Brotherkenzie	
9	7	Nobody Said	Takenobu		Nothing Can St	Mickey & Minn		Radio	Bershy		Always A Dream	Dafna		Freak Out	Miya Folick	liked	Flying	Cody Fry	
10	8	What Was Mine	Sarah Kinsley		are you?	Zeph		Lover's Desire	Anais Mitchel		Devils in the	The Strike	added	Think About Us	Healing Potpo		Heartthrob	Superfruit	added
11	9	Vertigo	Time for Three		Yeah Sure What	Daniel Pembor		Mine	Daniel Olsen		Painting Roses	Dresses		Men With A Min	Danny and Ale		Tuck Your Head	Mylo	
12	10	Carol of the C	AmBashov	skipped	Pitter Patter	Christy Nocke		Sophie	Frances Grove		Underground -	Cory Wong		Slot Machine	Charlotte Ros		Break My Own	Taylor Bicket	
13	11	I Belong in Yo	Chairlift		Waves	The Big Moon		I Don't Do Any	Olivia Barton		Overnight	Claud		Like We Used t	Dylan Gardner		don't say you'	almost monday	
14	12	Gods of the Go	Facing New York		Our House Belo	Cécile Corbel		Rose Quartz	Montana Janel	liked	new zealand	second though		Earl Grey Tea	Griff		Normativity	Rhumba Club	
15	13	Kendall Drive	The Polar Boys		Andrew	M Field		Reflecting Lig	Sam Phillips		Emily	MIKA		Vivid	Any Name's Ok		Dress	Charlotte San	liked
16	14	女心と棘の空	コーコーヤ	liked	Follow/Unfello	OFK		Calyso	ash tuesday		The Starry Nig	Matt Dahan		Olivia	Wolves of Glie		Nicked Cute	Suede Silver	
17	15	creature - w/	half-alive	added	Crack of Dawn	Yuji Nomi		Blue Honey	Lunar Vacatio		Ring of Keys	Various Artis	added	Keepintouch	Love You Late		I'm too pretty	Claire Rosink	liked
18	16	Sweet Tooth	Maya Hawke		Blush	Orville Peck		Annie, Heart t	Kishi Bashi		the butterfly	Kenny Elrod	liked	This Could Be	AURORA		Without Love	Marc Shalman	liked
19	17	Cat	Relient K		See You See	Gully Boys		Staring at the	Insomnia Beac		My Frankenset	Kody Kavitha		Notice Me	Various Artis		Cherry	Viji	
20	18	Adam Driver	Sipper		Perfectly Perf	Elizabeth & t		SKIN MILK	Papaya & Frie		Oh No!	MARINA		Rose Leaves	BAILEN		Gasps of Air	Lisa Curtis	
21	19	Alright	Johnny Marchillo	liked	To Be Your Lov	The Burkharts		Another Hundr	Eleri Ward		Disconnected	5 Seconds of		Count The Stai	Charlie Hicke		Unsolicited Co	Cassie Dasilv	
22	20	ルージュの伝言	Yumi Arai	liked	みっちねこバカ	みっちねこマー		it figures - d	elkyn		The I Love You	William Finn		Sunshine	Madison Rose		Texas Man	The Chicks	dislike
23	21	Virtute de Ca	The Weeknd		Wysteria	Nordista Free		Lodarene	Uwade		The I Love You	Anjinile		The Villain	Gabe Goodman		Classic	Tori Templet	
24	22	Adventure Is O	A/R		Wires	Spirit of the		Lovers	arauchi yu		Love Is A Wild	Kacey Musgrav		Golf On TV	Lennon Stella		Stupid Little	ok jess	dislike
25	23	Infinitesimal	Mother Mother		Wild I Am	Vocal Few		I'm Enough	Early Eyes		Honey, I	Wes Reeve		Need Ya	JuJube		Your Arms Arou	Jens Lekman	
26	24	Super Friends	Various Artists	skipped	When I Can't s	Pascal Pinon		Eternal Sunshi	Grace Almi	liked	Over & Again	buffchick		Both Sides Now	Kathleen		It's Not Livin	The 1975	
27	25	Nothing Left t	Various Artists		Perfume	Coral Bones		Granges and Le	Oliver Evans		Americans	Janelle Monáe		The Place To B	The Scarlet O		Chinatown	Barrie	
28	26	Like Real Peop	Nozier		Shoes Too Tight	Liam Kazar		Portugal	WALK THE MOON		Just the Way I	Jake Sherman		theminteenyear	push baby		You're Someth	Various Artis	
29	27	The Truth	36 Questions		brushes	Insignificant		Germaphobe	Mim Jensen	liked	Sleeping With	Billy Joel		Matty Healy	Georgia Twinn		Broadway, Here	SMASH Cast	skipped
30	28	Closeface	Sorry About Ev		BUICK	Raffaella		Thank Me Later	Sigrid		Disney Princes	Lewberger		Uppercut	Lou Roy		Star	LOONA	liked
31	29	orange show ap	Lizzy McAlpine	added	Dear Future Se	Kero Kero Bon		All of Your Li	Morgan Clae	added	読書	Miyuchi Yuri		November State	Black Pontiac		Girl On Your T	twst	
32	30	Sugar Cloud	Brooke Maxwell	dislike	steve	Sydney Spragu		Acolyte	Slaughter Bea	liked	Spring of Choi	Gabriel Sayer		Lonely Girl	REYNA		Letters	Slayyyter	
33	NEUTRAL		83.33%	19		100.00%	38		83.33%	24		83.33%	25		96.67%	29		83.33%	19
34	LIKED		13.33%	4		0.00%	0		13.33%	4		10.00%	3		3.33%	1		20.00%	5
35	DISLIKED		3.33%	1		0.00%	0		0.00%	0		0.00%	0		0.00%	0		6.67%	2
36	SKIPPED		10.00%	3		0.00%	0		0.00%	0		0.00%	0		0.00%	0		3.33%	1
37	ADDED		10.00%	3		0.00%	0		6.67%	2		6.67%	2		0.00%	0		6.67%	2

Each week, as the artist names and tracks were populated, I would be able to type one of four options in the reaction column:

- Liked
- Skipped
- Disliked
- Added (as previously explained)

If the reaction was left empty, it would be counted as “neutral”

I could rate them on initial reactions, but I tried to give each week's playlist two listens.

Then they would be totaled at the bottom of each week and presented as percentages.

The Results



Out of 390 songs:

Liked: 35

Added: 16

Skipped: 13

Disliked: 16

Neutral: 310*

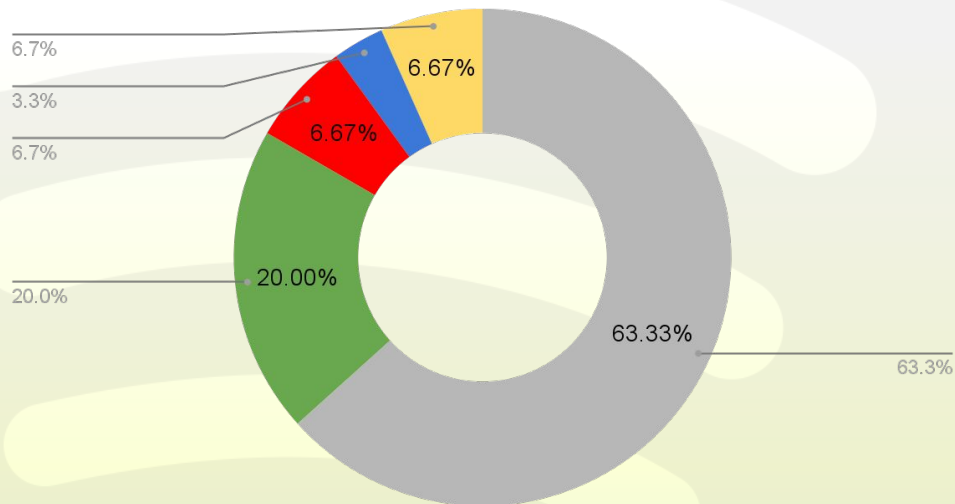


* I didn't always listen to every playlist

Best week (Week with most liked songs (6)):

Week 6

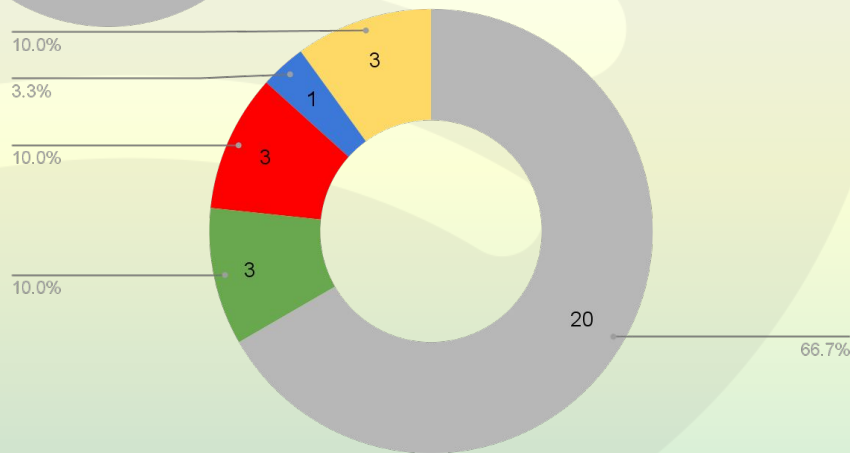
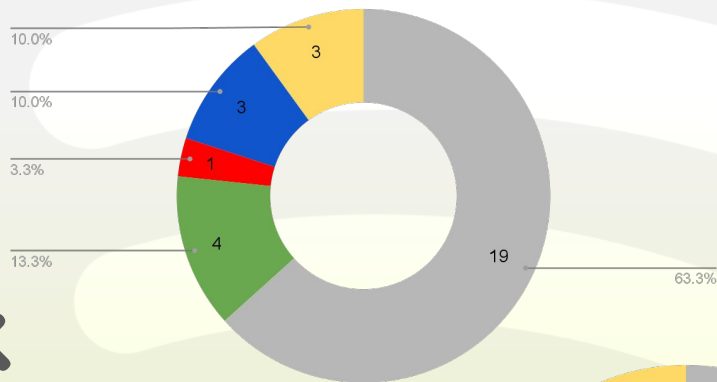
Week 6



Best week (Week with most added songs (3)):

Tie:
Week 1 &
Week 7

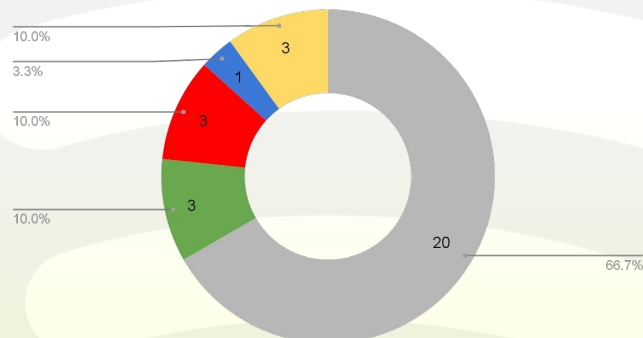
Week 1



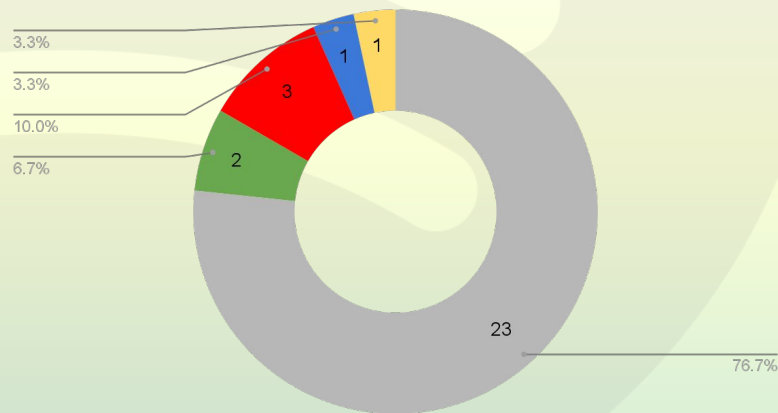
Worst week (Week with most disliked songs (3)):

Tie:
Week 7 &
Week 10

Week 7



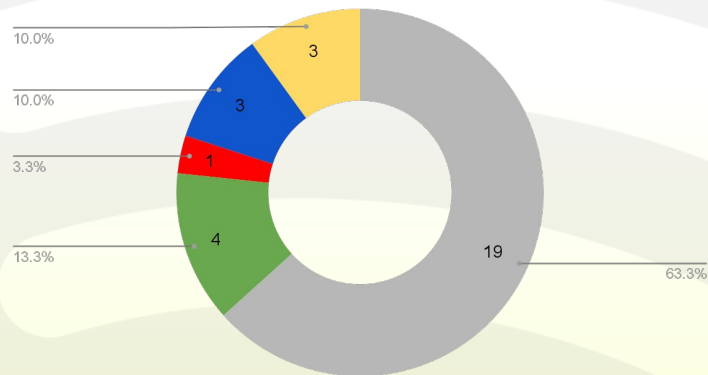
Week 10



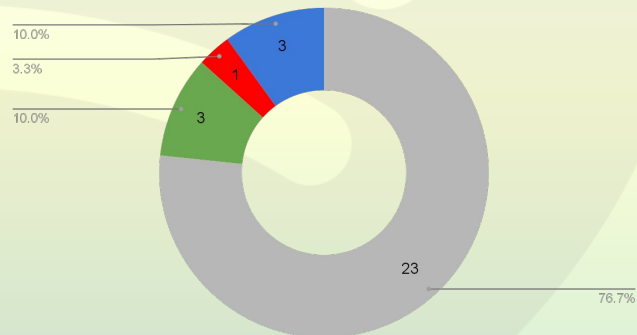
Worst week: Week with most skipped songs (3):

Tie:
Week 1 &
Week 8

Week 1



Week 8



Best Songs:

- Orange Show Speedway - Lizzy McAlpine (week one)
- Thank Me Later - Sigrid (week 3)
- LAYLA IN THE ROCKET - MICHELLE (week 6)



Worst Songs:

- Skimbleshanks: The Railway Cat - From The Motion Picture Soundtrack "Cats" (week 8)
- Bbo Bbo - Jessica Universe (week 9)
- Carol of the Cats - iAmMoshow (week 1)



Conclusion:

Most of the songs I did not like were Broadway / comedy songs. My main purpose for listening to discover weekly is to find new music to listen to all the time. I am not always in the mood for Broadway, comical songs.

There were many songs / artist I have listened to before at least once.

Next time:

- I will add drop down data validations instead of having to type “liked” “disliked” etc every time
- I will also try to automate the copying of the text through the spreadsheet
- I will try to actively like and dislike the songs ON SPOTIFY to help the algorithm pick up on what I like and don't like.

Links:

Janelle's Discover Weekly Spreadsheet:

https://docs.google.com/spreadsheets/d/1AqE3P2tRwjFr8HoKJxm1dCi6mq-gJSDKiE3T1b_-SjE/edit?usp=sharing

Spotify for Developers:

<https://developer.spotify.com/>