

Spotify Dataset Analysis using SQL

Project Overview

Dataset

Spotify data from Kaggle

Objective

Analyze music trends, track performance, and user engagement

Techniques Used

- Aggregations: SUM, AVG, COUNT
- Advanced Queries: CTEs, Window Functions, Subqueries
- Ranking: DENSE_RANK and ORDER BY

Approach

Utilized SQL for insights, covering 15 queries

REQUEST 1

Retrieve Tracks with Over 1 Billion Streams

OUTPUT

	track character varying (255)	lock	stream bigint	lock
1	Feel Good Inc.		1040234854	
2	Californication		1055738398	
3	Under the Bridge		1061750522	
4	In Da Club		1041736808	
5	Yellow		1483622308	
6	Viva La Vida		1325575712	
7	Something Just Like This		2030825694	
8	The Scientist		1465980600	

REQUEST 2

List Albums and Artists

OUTPUT

	album character varying (255)	artist character varying (255)
1	NEED A FAVOR	Jelly Roll
2	Agar Tum Na Hote (Original Motion Picture Soundtrack)	R. D. Burman
3	Algo De Mi	Conjunto Primavera
4	The Melodic Blue (Deluxe)	Baby Keem
5	A N N I V E R S A R Y	Bryson Tiller
6	Untouchables	Korn
7	Alright, Still (Bonus Track Version)	Lily Allen
8	Mozart: Requiem	Berliner Philharmoniker
9	#NAME?	Jesse & Joy
10	HUMBLE. (SKRILLEX REMIX)	Skrillex

REQUEST 3

Total Comments for Licensed Tracks

OUTPUT

	total_comments	lock
	numeric	
1	497023475	

REQUEST 4

Tracks Belonging to Singles

OUTPUT

	track character varying (255)	album_type character varying (50)
1	100 SMSjes	single
2	Some	single
3	April Maathathil	single
4	Antidepresan	single
5	Soranji	single
6	Mal Sei Falar de Amor	single
7	Skyfall	single
8	ANDRÓMEDA	single
9	Paradise (feat. Dermot Kennedy)	single
10	Heading South	single

REQUEST 5

Total Number of Tracks by Artist

OUTPUT

	count 	artist character varying (255) 
1	1	Bootie Brown
2	1	Stars Music Chile
3	1	back number
4	2	Mrs. GREEN APPLE
5	2	Vaundy
6	3	Jimin
7	4	BUMP OF CHICKEN
8	5	Aimer
9	5	Damso
10	5	Lamp
11	5	Kenshi Yonezu
12	5	Mr.Children

REQUEST 6

Calculate the Average Danceability of Tracks in Each Album

OUTPUT

	avg double precision	album character varying (255)
1	0.64	Energy (Expanded Edition)
2	0.78	Nursery Rhymes by CoComelon
3	0.78	Some
4	0.48	Tiempo pa' Matar
5	0.6057142857142858	Acústico (Ao Vivo / Deluxe)
6	0.54	The Bang Years 1966-1968 (The 23 Original Mono Recordings)
7	0.595	Aadukalam (Original Motion Picture Soundtrack)
8	0.7	Antidepresan
9	0.59	Love Dose: Benny Dayal
10	0.67	ANDRÓMEDA
11	0.7033333333333333	La Fórmula

REQUEST 7

Find the Top 5 Tracks with the Highest Energy Values

OUTPUT

	track character varying (255) 	energy double precision 
1	Rain and Thunderstorm, Pt. 6	1
2	Rain and Thunderstorm, Pt. 7	1
3	Rain and Thunderstorm, Pt. 4	1
4	Rain and Thunderstorm, Pt. 3	1
5	Rain and Thunderstorm, Pt. 33	1

REQUEST 8

List All Tracks with Their Views and Likes Where official_video is TRUE

OUTPUT

	track character varying (255)	views double precision	likes bigint
1	Feel Good Inc.	693555221	6220896
2	Rhinestone Eyes	72011645	1079128
3	New Gold (feat. Tame Impala and Bootie Brown)	8435055	282142
4	On Melancholy Hill	211754952	1788577
5	Clint Eastwood	618480958	6197318
6	DARE	259021161	1844658
7	New Gold (feat. Tame Impala and Bootie Brown) - Dom Dolla Remix	451996	11686
8	Cracker Island (feat. Thundercat)	24459820	739527
9	Dirty Harry	154761056	1386920
10	Californication	1018811259	4394471
11	Under the Bridge	246687714	1213572

REQUEST 9

Calculate the Total Views for Tracks in Each Album

OUTPUT

	total_view double precision	album character varying (255)	track character varying (255)
1	16159296273	VIDA	Despacito
2	11547595554	See You Again (feat. Charlie Puth)	See You Again (feat. Charlie Puth)
3	9974504694	Peace Is The Mission (Extended)	Lean On
4	5908398479	÷ (Deluxe)	Shape of You
5	5322011392	MUNAY	Calma - Remix
6	5252059812	This Is What You Came For	This Is What You Came For
7	5162403752	Swalla (feat. Nicki Minaj & Ty Dolla \$ign)	Swalla (feat. Nicki Minaj & Ty Dolla \$ign)
8	4898831101	CoComelon Kids Hits, Vol. 1	Wheels on the Bus
9	4828403435	Taki Taki (with Selena Gomez, Ozuna & Cardi B)	Taki Taki (with Selena Gomez, Ozuna & Cardi B)
10	4821016218	Uptown Special	Uptown Funk (feat. Bruno Mars)
11	4679767471	Gangnam Style (?????)	Gangnam Style (?????)

REQUEST 10

Retrieve Tracks Streamed More on Spotify Than YouTube

OUTPUT

	track character varying (255)	streamed_on_yt numeric	streamed_on_spotify numeric
1	Usted	30059201	137916795
2	21 Hungarian Dances, WoO 1: Hungarian Dance No. 5 in G Minor. Allegro (Orch. Schmeling)	39575743	79151486
3	Mientes Tan Bien	6915455	224299945
4	Have You Ever Seen The Rain	61903001	975300588
5	Dream A Little Dream Of Me	157256901	495674374
6	When I Grow Up	231236307	260959663
7	Me Hace Tanto Bien	56694580	187498268
8	What You Want (feat. Total)	13099909	85458315
9	Suavemente	134326707	250550159
10	Emotions	218177	107654866
11	Do It Again	116968498	182238193

REQUEST 11

Find the Top 3 Most-Viewed Tracks for Each Artist Using Window Functions

OUTPUT

	artist character varying (255)	track character varying (255)	views double precision	rank bigint
1	\$NOT	Tell Em	41100657	1
2	\$NOT	Like Me (feat. iann dior)	15803517	2
3	\$NOT	Mean	13563870	3
4	\$uicideboy\$	Paris	175156959	1
5	\$uicideboy\$	For the Last Time	91771038	2
6	\$uicideboy\$	Kill Yourself (Part III)	31674988	3
7	(G)I-DLE	POP/STARS	541864471	1
8	(G)I-DLE	TOMBOY	204797335	2
9	(G)I-DLE	Oh my god	191587399	3
10	*NSYNC	Bye Bye Bye	315874581	1
11	*NSYNC	This I Promise You	252377383	2
12	*NSYNC	It's Gonna Be Me	172368673	3

REQUEST 12

Find Tracks with Liveness Scores Above the Average

OUTPUT

	track character varying (255)	locked	liveness double precision	locked	avg_liv double precision	locked
1	Feel Good Inc.		0.613		0.19365327765368562	
2	DARE		0.298		0.19365327765368562	
3	New Gold (feat. Tame Impala and Bootie Brown) - Dom Dolla Remix		0.325		0.19365327765368562	
4	Cracker Island (feat. Thundercat)		0.325		0.19365327765368562	
5	Dirty Harry		0.672		0.19365327765368562	
6	Dani California		0.346		0.19365327765368562	
7	Candy Shop		0.38		0.19365327765368562	
8	Just A Lil Bit		0.315		0.19365327765368562	
9	Disco Inferno		0.279		0.19365327765368562	
10	The Unforgiven (Remastered)		0.255		0.19365327765368562	

REQUEST 13

Calculate the Difference Between the Highest and Lowest Energy Values for Tracks in Each Album

OUTPUT

	album character varying (255)	energy_diff double precision
1	White Noise	0.9067500000000001
2	Spotify Singles - Holiday	0.8360000000000001
3	Spotify Singles	0.8232
4	UNDERTALE Soundtrack	0.816
5	Making Mirrors	0.8109000000000001
6	Everytime We Touch (Premium Edition)	0.8049999999999999
7	Unwritten	0.8
8	If I Can Dream: Elvis Presley with the Royal Philharmonic Orchestra	0.787
9	Fallen	0.7649999999999999
10	CeeLo's Magic Moment	0.762
11	Greatest Hits	0.741

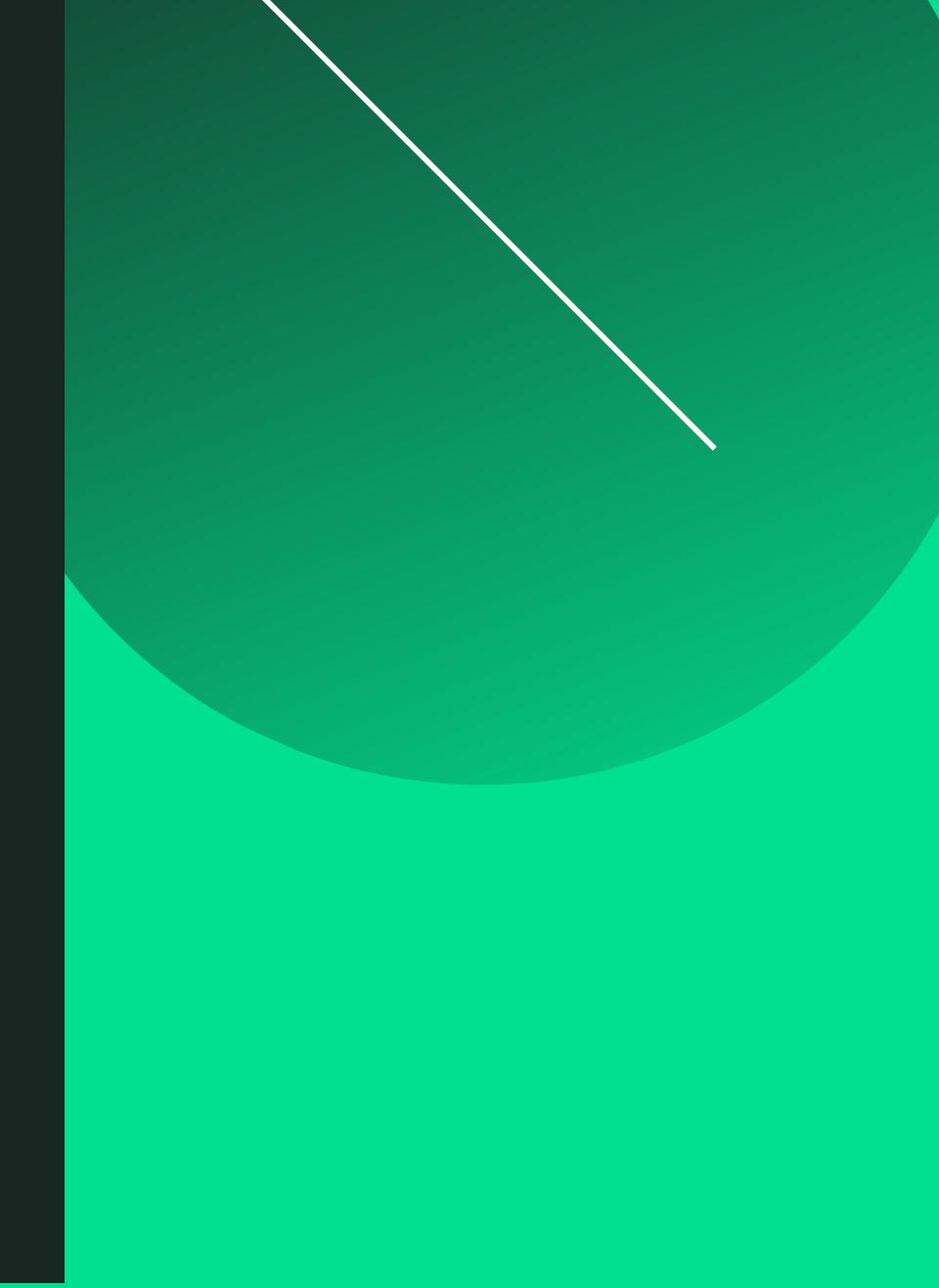
REQUEST 15

Calculate the Cumulative Sum of Likes Ordered by Views

OUTPUT

	track character varying (255)	locked	cumulative_sum numeric
1	Despacito		13344709227
2	Despacito		13293920575
3	Shape of You		13243131949
4	See You Again (feat. Charlie Puth)		13212084169
5	See You Again (feat. Charlie Puth)		13171936495
6	Wheels on the Bus		13131788877
7	Uptown Funk (feat. Bruno Mars)		13117392036
8	Gangnam Style (?????)		13097324157
9	Sugar		13070925024
10	Roar		13055584378
11	Counting Stars		13039719879

THANKYOU



Retrieve Tracks with Over 1 Billion Streams



Christopher Herman

MUSIC GURU

CAREER HIGHLIGHTS

Presentations are communication tools that can be demonstrations.

AUDIO'S CO. FOUNDER

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Market Analysis

ASSESSING THE LANDSCAPE

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Factors to Consider

DEMOGRAPHICS & SEGMENTATION

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MARKET NEED

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BARRIERS TO ENTRY

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HOT TOPIC: ARTISTS' ROYALTIES

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Artists' Take on the Issue



SANDRA MULLINS

Guitarist, Bee Galore

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LEONORA MADRIGAL

Vocalist, Crave Nature

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VIKRAMADITYA HOLKAR

Pop Artist

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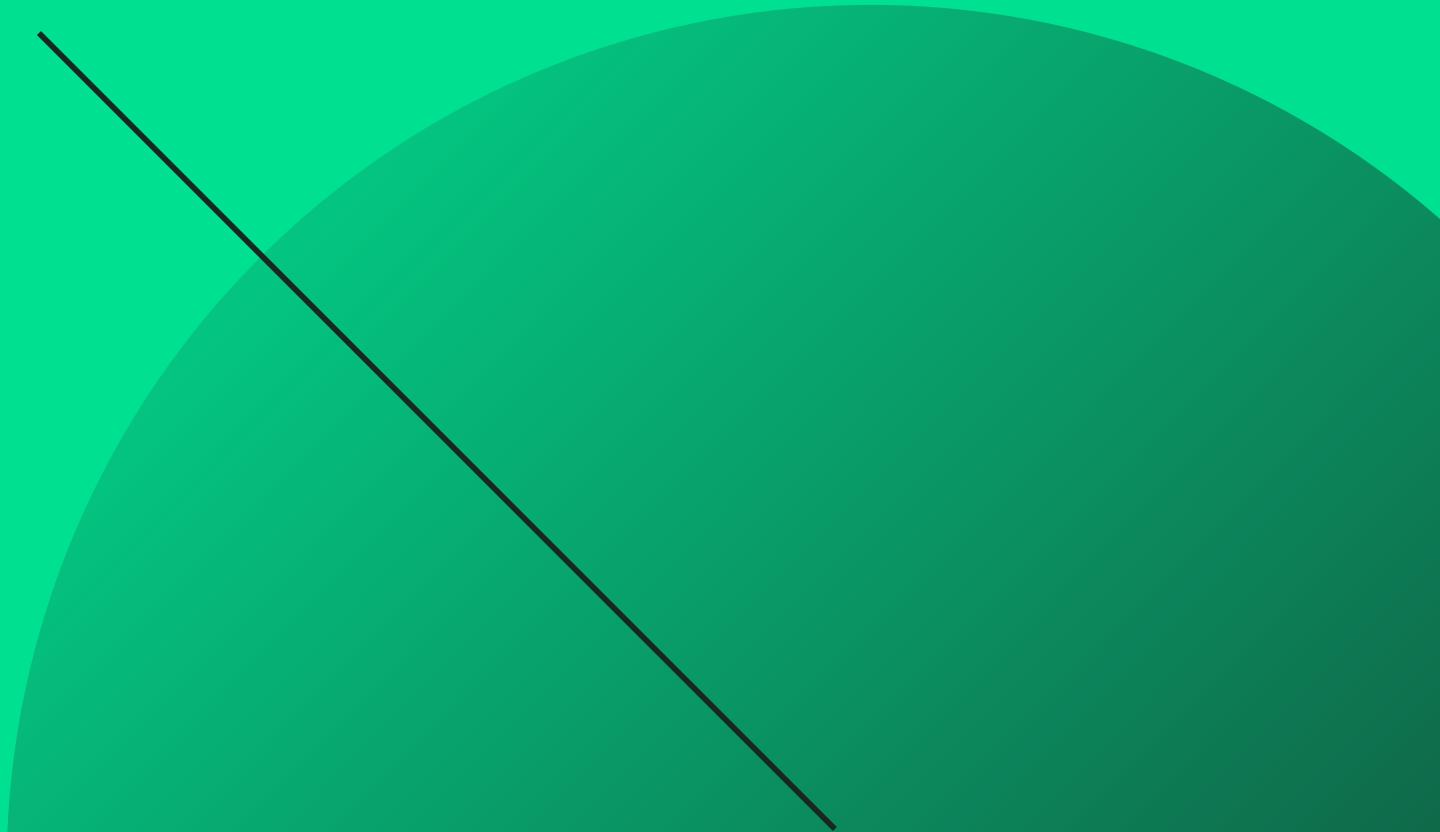


COMPETITORS' INTERFACE ON DESKTOP & MOBILE

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OUR PROPOSED INTERFACE ON DESKTOP & MOBILE

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Buyer Persona Focus in

NICK: THE MILLENIAL FREELANCER

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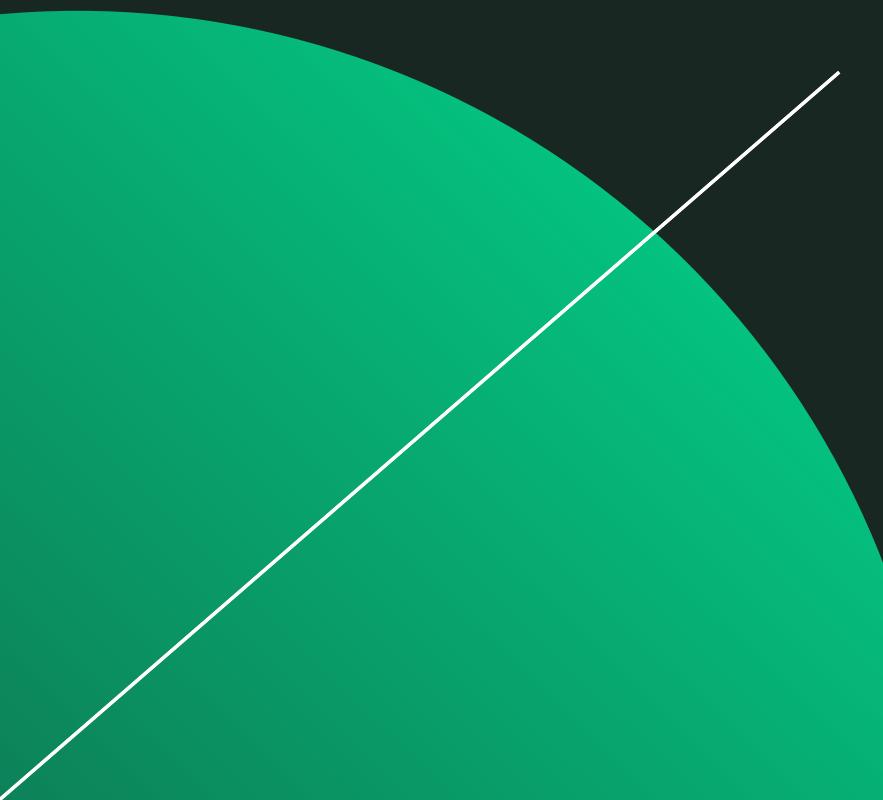
Daily Music Consumption



Discovering New Music

No data to display

Music Streaming Trends



RISE IN DEMAND

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BANDWIDTH EXPANSION

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WEARABLE DEVICES

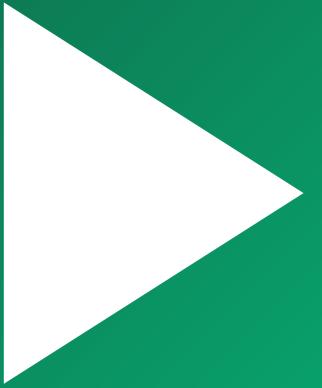
Presentations are communication tools that can be lectures.

CLOUD STORAGE

Presentations are communication tools that can be lectures.

Presentations are communication tools that can be demonstrations, lectures, speeches, reports, and more.





Teaser Video: A New Way of Streaming

Presentations are communication tools that can be demonstrations, lectures, speeches, reports, and more.

Key App Features



Online and Offline
Access



High-Quality
Sound



Private Listening
Mode

PRODUCT

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PRICE

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PLACE

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PROMOTION

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PEOPLE

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PROCESS

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Experiment with ads and in-app purchases.



COLLECT USER DATA.

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EXPERIMENT WITH ADS

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OFFER UNLIMITED ACCESS

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Project Roadmap

PLANNING: APR. 2020

Presentations are communication tools
that can be demonstrations.

FEATURE & UI/UX DESIGN: JUNE 2020

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FRONTEND & BACKEND DEVELOPMENT: NOV. 2020

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that can be demonstrations.

Without music,
life would be a
mistake.

FRIEDRICH NIETZSCHE



A PHILOSOPHER'S
PERSPECTIVE

The Audios Co. Team

MARSHALL
ALBERT

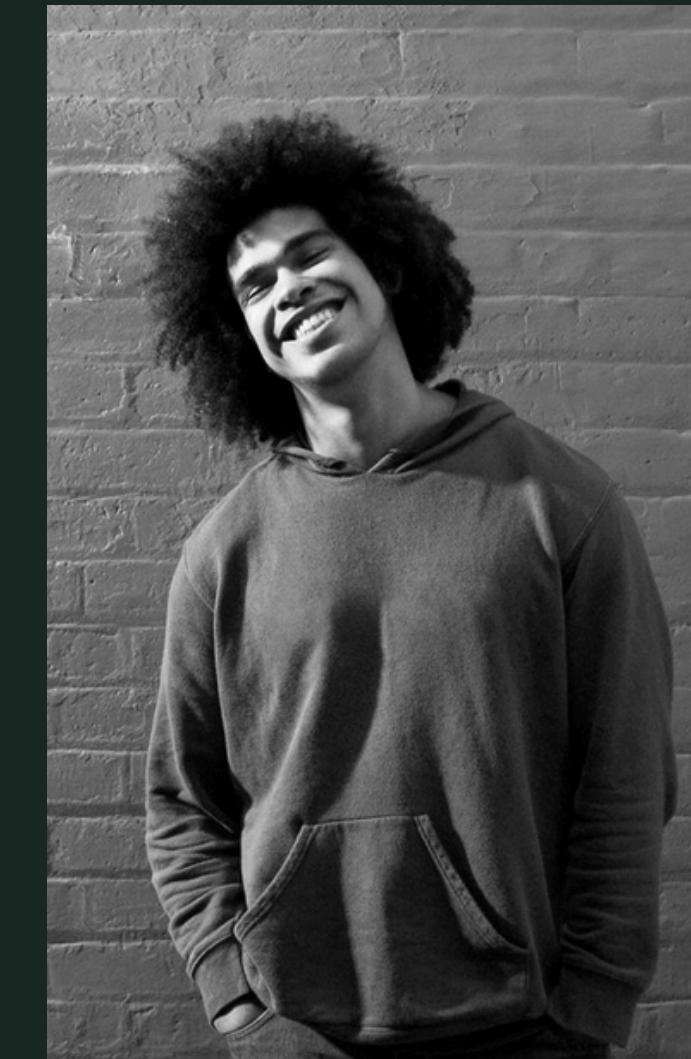
Digital Marketing
Manager

BRISTOL
ROBERTSON

Project
Manager

KAITLYN
JOYNER

Development
Team Lead





Contact Us

MAILING ADDRESS

123 Anywhere St., Any City,
State, Country 12345

EMAIL ADDRESS

hello@reallygreatsite.com

PHONE NUMBER

(123) 456 7890

FOR
QUESTIONS
OR CONCERN
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