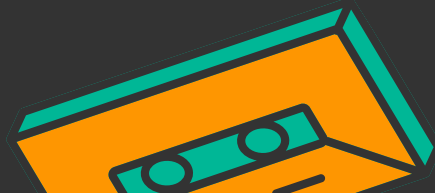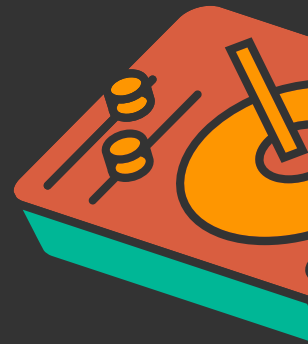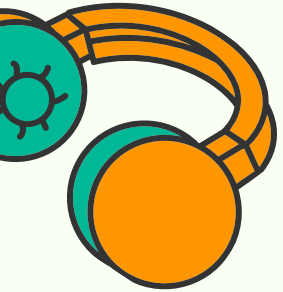# MUSIC ANALYSIS

MUSIC FOR YOUR SOUL
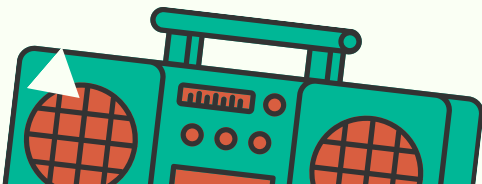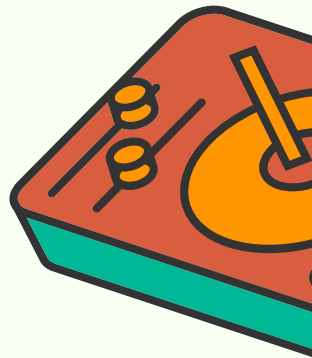
TABLE OF SCHEMA

ALBUM

ARTIST

CUSTOMER

EMPLOYEE

GENRE

INVOICE

INVOICE_LINE
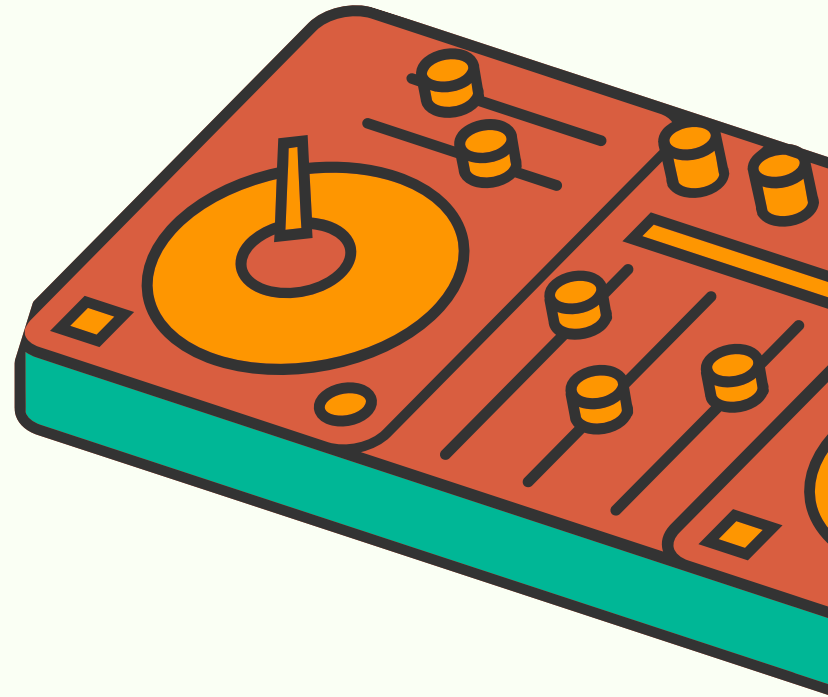
MEDIA_TYPE

PLAYLIST

PLAYLIST_TRACK

TRACK

OUR STORY

Hi , I am parwez Alam , am i work on the project of music store analysis using Sql

OUR MISSION

Our Mission to Analysis the Music Store to co-related with the Table of Schema with help of the SQL Query

Basic

Q: WHO IS THE SENIOR MOST EMPLYOEE BASED ON JOB TITLE?

SELECT * FROM EMPLOYEE

ORDER BY LEVELS DESC
LIMIT 1

employee_id [PK] character varying (50)	last_name character	first_name character	title character varying (50)
1	9	Madan	Mohan	Senior General Manager

Q : WHO IS THE BEST CUSTOMER? THE CUSTOMER WHO HAS SPENT THE MOST MONEY WILL BE DECLARED THE BEST CUSTOMER.WRITE A QUERY THAT RETURNS THE PERSON WHO HAS SPENT THE MOST MONEY.

```
SELECT CUSTOMER.CUSTOMER_ID , CUSTOMER.FIRST_NAME ,
    CUSTOMER.LAST_NAME , SUM(INVOICE.TOTAL) AS TOTAL
    FROM  CUSTOMER
JOIN INVOICE ON CUSTOMER.CUSTOMER_ID = INVOICE.CUSTOMER_ID
    GROUP BY  CUSTOMER.CUSTOMER_ID
    ORDER BY TOTAL DESC
    LIMIT 1
```

Data Output   Messages   Notifications

	customer_id [PK] integer	first_name character		last_name character		total double precision
1	5	R	...	Madhav		144.54000000000002

Moderate

Q : LET'S INVITE THE ARTISTS WHO HAVE WITTEN THE MOST ROCK MUSIC IN OUR DATASET . WRITE A QUERY THAT RETURN THE ARTIST NAME AND TOTAL TRACK COUNT OF THE TOP 5 ROCK BANDS

```sql
SELECT ARTIST.ARTIST_ID , ARTIST.NAME,COUNT(ARTIST.ARTIST_ID) AS
NUMBER_OF_SONGS
FROM TRACK
JOIN ALBUM ON ALBUM.ALBUM_ID = TRACK.ALBUM_ID
JOIN ARTIST ON ARTIST.ARTIST_ID = ALBUM.ARTIST_ID
JOIN GENRE ON GENRE.GENRE_ID = TRACK.GENRE_ID
WHERE GENRE.NAME LIKE 'ROCK'
GROUP BY ARTIST.ARTIST_ID
ORDER BY NUMBER_OF_SONGS DESC
LIMIT 5;
```

Data Output   Messages   Notifications

	artist_id [PK] character varying (50)	name character varying (120)	number_of_songs bigint
1	22	Led Zeppelin	114
2	150	U2	112
3	58	Deep Purple	92
4	90	Iron Maiden	81
5	118	Pearl Jam	54

Q: RETURN ALL THE TRACK NAMES THAT HAVE A SONG LENGTH LONGEER THAN THE AVERAGE SONG LENGTH . RETURN THE NAME AND MILLISECONDS FOR EACH TRACK. ORDER BY THE SONG LENGTH WITH THE LONGEST SONGS LISTED FIRST

```
SELECT NAME , MILLISECONDS
FROM TRACK
WHERE MILLISECONDS > (
SELECT AVG(MILLISECONDS) AS AVG_TRACK_LENGTH
FROM TRACK)
ORDER BY MILLISECONDS DESC;

-- SECOND METHOD
SELECT NAME , MILLISECONDS
FROM TRACK
WHERE MILLISECONDS > 393599
ORDER BY MILLISECONDS DESC;
```

Data Output Messages Notifications

	name character varying (150)	milliseconds integer
1	Occupation / Precipice	5286953
2	Through a Looking Glass	5088838
3	Greetings from Earth, Pt. 1	2960293
4	The Man With Nine Lives	2956998
5	Battlestar Galactica, Pt. 2	2956081
6	Battlestar Galactica, Pt. 1	2952702

Advance

Q :find how much amount spent by each customer on artists ?

write a query to return customer name , artist name and total spent

```sql
WITH BEST_SELLING_ARTIST AS (
SELECT ARTIST.ARTIST_ID AS ARTIST_ID , ARTIST.NAME AS ARTIST_NAME,
SUM(INVOICE_LINE.UNIT_PRICE * INVOICE_LINE.QUANTITY)AS TOTAL_SALES
FROM INVOICE_LINE
JOIN TRACK ON TRACK.TRACK_ID = INVOICE_LINE.TRACK_ID
JOIN ALBUM ON ALBUM.ALBUM_ID = TRACK.ALBUM_ID
JOIN ARTIST ON ARTIST.ARTIST_ID = ALBUM.ARTIST_ID
GROUP BY 1
ORDER BY 3 DESC
LIMIT 1
)
SELECT C.CUSTOMER_ID , C.FIRST_NAME , C.LAST_NAME , BSA.ARTIST_NAME ,
SUM(IL.UNIT_PRICE*IL.QUANTITY) AS AMOUNT_SPENT
FROM INVOICE I
JOIN CUSTOMER C ON C.CUSTOMER_ID = I.CUSTOMER_ID
JOIN INVOICE_LINE IL ON IL.INVOICE_ID = I.INVOICE_ID
JOIN TRACK T ON T.TRACK_ID = IL.TRACK_ID
JOIN ALBUM ALB ON ALB.ALBUM_ID = T.ALBUM_ID
JOIN BEST_SELLING_ARTIST BSA ON BSA.ARTIST_ID = ALB.ARTIST_ID
GROUP BY 1,2,3,4
ORDER BY 5 DESC;
```

Output

	customer_id integer	first_name character	last_name character	artist_name character varying (120)	amount_spent double precision
1	46	Hugh	O'Reilly	Queen	27.719999999999985
2	38	Niklas	Schröder	Queen	18.81
3	3	François	Tremblay	Queen	17.82
4	34	João	Fernandes	Queen	16.830000000000002
5	53	Phil	Hughes	Queen	11.88
6	41	Marc	Dubois	Queen	11.88
7	47	Lucas	Mancini	Queen	10.89
8	33	Ellie	Sullivan	Queen	10.89

Q3 : Write a query that determines the customer that has spent the most on music for each country.
Write a query that returns the country along with the top customer and how much they spent. For countries where the top amount
spent is sharred , provided all customers who spent this amount.

```
WITH RECURSIVE
CUSTOMER_WITH_COUNTRY AS (
SELECT CUSTOMER.CUSTOMER_ID,FIRST_NAME,LAST_NAME,BILLING_COUNTRY ,
SUM(TOTAL) AS TOTAL_SPENDING
FROM INVOICE
JOIN CUSTOMER ON CUSTOMER.CUSTOMER_ID = INVOICE.CUSTOMER_ID
GROUP BY 1,2,3,4
ORDER BY 2,3 DESC),
COUNTRY_MAX_SPENDING AS(
SELECT BILLING_COUNTRY,MAX(TOTAL_SPENDING) AS MAX_SPENDING
FROM CUSTOMER_WITH_COUNTRY
GROUP BY BILLING_COUNTRY)
SELECT CC.BILLING_COUNTRY , CC.TOTAL_SPENDING, CC.FIRST_NAME ,
CC.LAST_NAME , CC.CUSTOMER_ID
FROM CUSTOMER_WITH_COUNTRY CC
JOIN COUNTRY_MAX_SPENDING MS
ON CC.BILLING_COUNTRY = MS.BILLING_COUNTRY
```

Output

	billing_country character varying (30)	total_spending double precision	first_name character	last_name character	customer_id integer
1	Canada	70.28999999999999	Aaron	Mitchell	32
2	Brazil	69.3	Alexandre	Rocha	11
3	Austria	69.3	Astrid	Gruber	7
4	Norway	72.27000000000001	Bjørn	Hansen	4
5	France	79.2	Camille	Bernard	39
6	Belgium	60.38999999999999	Daan	Peeters	8
7	USA	95.03999999999999	Dan	Miller	20
8	Argentina	39.6	Diego	Gutiérrez	56
9	France	72.27	Dominique	Lefebvre	40
10	Brazil	60.39	Eduardo	Martins	10
11	Canada	91.08	Edward	Francis	30
12	Canada	75.24000000000001	Ellie	Sullivan	33
13	United Kingdom	68.31	Emma	Jones	52
14	Spain	98.01	Enrique	Muñoz	50
15	Brazil	106.91999999999999	Fernanda	Ramos	13
16	Canada	99.99	François	Tremblay	3
17	USA	71.28	Frank	Ralston	24
18	USA	74.25	Frank	Harris	16
19	Germany	94.05000000000001	Fynn	Zimmermann	37
20	Germany	85.14	Hannah	Schneider	36
21	USA	92.07000000000001	Heather	Leacock	22

THANKS HEAPS!