

NOTE - Replace 'propane-ground-386006.Music_store' with your dataset name in all the queries

/* Q1: Write query to return the email, first name, last name, & Genre of all Rock Music listeners. Return your list ordered alphabetically by email starting with A. */

--METHOD 1 (using multiple JOINS)

```
SELECT
    DISTINCT customer.email AS email_ID,
    CONCAT(customer.first_name, " ", customer.last_name) AS Name,
    genre.name
FROM
    propane-ground-386006.Music_store.customer AS customer
    LEFT JOIN propane-ground-
386006.Music_store.invoice AS invoice ON invoice.customer_id=customer.customer_id
    LEFT JOIN propane-ground-
386006.Music_store.invoice_line AS invoice_line ON invoice_line.invoice_id=invoice.invoice_id
    LEFT JOIN propane-ground-
386006.Music_store.track AS track ON track.track_id=invoice_line.track_id
    LEFT JOIN propane-ground-386006.Music_store.genre AS genre ON genre.genre_id=track.genre_id
WHERE
    genre.name="Rock"
ORDER BY
    email_ID
```

--METHOD 2 (using Sub Query)

```
SELECT
    DISTINCT customer.email AS email_ID,
    CONCAT(customer.first_name, " ", customer.last_name) AS Name,
FROM
    propane-ground-386006.Music_store.customer AS customer
    LEFT JOIN propane-ground-
386006.Music_store.invoice AS invoice ON invoice.customer_id=customer.customer_id
    LEFT JOIN propane-ground-
386006.Music_store.invoice_line AS invoice_line ON invoice_line.invoice_id=invoice.invoice_id
    WHERE track_id IN(
        SELECT track_id FROM propane-ground-386006.Music_store.track AS track
        LEFT JOIN propane-ground-386006.Music_store.genre AS genre ON genre.genre_id=track.genre_id
        WHERE genre.name LIKE 'Rock'
    )
ORDER BY
    email_ID
```

/* Q2: Let's invite the artists who have written the most rock music in our dataset. Write a query that returns the Artist name and total track count of the top 10 rock bands. */

--METHOD 1 (using multiple JOINS)

```
SELECT
    artist.artist_id AS ID,
    artist.name AS name,
    COUNT(album.artist_id) AS no_of_songs
FROM
    propane-ground-386006.Music_store.artist AS artist
JOIN
    propane-ground-386006.Music_store.album AS album ON album.artist_id=artist.artist_id
JOIN
    propane-ground-386006.Music_store.track AS track ON track.album_id=album.album_id
JOIN
```

```

    propane-ground-386006.Music_store.genre AS genre ON genre.genre_id=track.genre_id
WHERE
    genre.name LIKE 'Rock'
GROUP BY
    ID,name
ORDER BY
    no_of_songs DESC
--METHOD 2 (using Sub Query)
SELECT
    artist.artist_id AS ID,
    artist.name AS name,
    COUNT(album.artist_id) AS no_of_songs
FROM
    propane-ground-386006.Music_store.artist AS artist
JOIN
    propane-ground-386006.Music_store.album AS album ON album.artist_id=artist.artist_id
JOIN
    propane-ground-386006.Music_store.track AS track ON track.album_id=album.album_id
WHERE
    track.genre_id IN (
        SELECT genre_id
        FROM propane-ground-386006.Music_store.genre
        WHERE name LIKE 'Rock'
    )
GROUP BY
    ID, name
ORDER BY
    no_of_songs DESC

```

/* Q3: Return all the track names that have a song length longer than the average song length.

Return the Name and Milliseconds for each track. Order by the song length with the longest songs listed first.*/

```

--METHOD 1 (using multiple JOINS)
SELECT
    name, milliseconds AS song_len
FROM `propane-ground-386006.Music_store.track`
WHERE milliseconds > (SELECT AVG(milliseconds) as avg_len
FROM `propane-ground-386006.Music_store.track`)
ORDER BY
    song_len

```