

**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 cust_name,
  genre.name AS 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
```

**Result of the query -**

Query results				<a href="#">SAVE RESULTS</a>	<a href="#">📊</a>
JOB INFORMATION		RESULTS	JSON	EXECUTION DETAILS	EXECUTION GRAPH
Row	email_ID	cust_name	genre_name	PREVIEW	
1	aaronmitchell@yahoo.ca	Aaron Mitchell	Rock		
2	alero@uol.com.br	Alexandre Rocha	Rock		
3	astrid.gruber@apple.at	Astrid Gruber	Rock		
4	bjorn.hansen@yahoo.no	Bjorn Hansen	Rock		
5	camille.bernard@yahoo.fr	Camille Bernard	Rock		
6	daan.peeters@apple.be	Daan Peeters	Rock		
7	diego.gutierrez@yahoo.ar	Diego Gutiérrez	Rock		
8	dmiller@comcast.com	Dan Miller	Rock		
9	dominiquelefebvre@gmail.com	Dominique Lefebvre	Rock		
10	edfrancis@yahoo.ca	Edward Francis	Rock		
11	eduardo@woodstock.com.br	Eduardo Martins	Rock		
12	ellie.sullivan@shaw.ca	Ellie Sullivan	Rock		
13	emma_jones@hotmail.com	Emma Jones	Rock		
14	enrique_munoz@yahoo.es	Enrique Muñoz	Rock		

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--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
```

Result of the query -

Query results

SAVE RESULTS

JOB INFORMATION		RESULTS	JSON	EXECUTION DETAILS	EXECUTION GRAPH	PREVIEW
Row	email_ID	Name				
1	aaronmitchell@yahoo.ca	Aaron Mitchell				
2	alero@uol.com.br	Alexandre Rocha				
3	astrid.gruber@apple.at	Astrid Gruber				
4	bjorn.hansen@yahoo.no	Bjørn Hansen				
5	camille.bernard@yahoo.fr	Camille Bernard				
6	daan_peeters@apple.be	Daan Peeters				
7	diego.gutierrez@yahoo.ar	Diego Gutiérrez				
8	dmiller@comcast.com	Dan Miller				
9	dominiquelefebvre@gmail.com	Dominique Lefebvre				
10	edfrancis@yahoo.ca	Edward Francis				
11	eduardo@woodstock.com.br	Eduardo Martins				
12	ellie.sullivan@shaw.ca	Ellie Sullivan				

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/\* 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
```

Result of the query -

Query results					 SAVE RESULTS ▾	
JOB INFORMATION		RESULTS	JSON	EXECUTION DETAILS	EXECUTION GRAPH	PREVIEW
Row	ID	name	no_of_songs			
1	22	Led Zeppelin	114			
2	150	U2	112			
3	58	Deep Purple	92			
4	90	Iron Maiden	81			
5	118	Pearl Jam	54			
6	152	Van Halen	52			
7	51	Queen	45			
8	142	The Rolling Stones	41			
9	76	Creedence Clearwater Revival	40			
10	52	Kiss	35			
11	84	Foo Fighters	33			
12	127	Red Hot Chili Peppers	31			
13	100	Lenny Kravitz	30			
14	139	The Cult	30			
15	110	Nirvana	29			
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```
/* 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.*/
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
```

Result of the query -

Query results					 SAVE RESULTS ▾	
JOB INFORMATION		RESULTS	JSON	EXECUTION DETAILS	EXECUTION GRAPH	PREVIEW
Row	name	song_len				
1	Wicked Ways	393691				
2	Concerto for Clarinet in A Majo...	394482				
3	The Shortest Straw	395389				
4	The Unforgiven II	395520				
5	22 Acacia Avenue	395572				
6	King For A Day	395859				
7	The Thing That Should Not Be	396199				
8	Save Me (Remix)	396303				
9	Deep Waters	396460				
10	Creeping Death	396878				
11	Astronomy	397531				
12	Ride The Lightning	397740				
13	Still Of The Night	398210				
14	Thank You	398262				
15	Helobless	398315				
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