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[SQL_Project_Music_Store_Analysis](#) / [Music_Store_Query.sql](#)

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 History 1 contributor

230 lines (171 sloc) | 8.07 KB

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```
1  /*      Question Set 1 - Easy */
2
3  /* Q1: Who is the senior most employee based on job title? */
4
5  SELECT title, last_name, first_name
6  FROM employee
7  ORDER BY levels DESC
8  LIMIT 1
9
10
11 /* Q2: Which countries have the most Invoices? */
12
13 SELECT COUNT(*) AS c, billing_country
14 FROM invoice
15 GROUP BY billing_country
16 ORDER BY c DESC
17
18
19 /* Q3: What are top 3 values of total invoice? */
20
21 SELECT total
22 FROM invoice
23 ORDER BY total DESC
24
25
26 /* Q4: Which city has the best customers? We would like to throw a promotional Music Festival in t
27 Write a query that returns one city that has the highest sum of invoice totals.
28 Return both the city name & sum of all invoice totals */
29
```

```
30 SELECT billing_city,SUM(total) AS InvoiceTotal
31 FROM invoice
32 GROUP BY billing_city
33 ORDER BY InvoiceTotal DESC
34 LIMIT 1;
35
36
37 /* Q5: Who is the best customer? The customer who has spent the most money will be declared the be
38 Write a query that returns the person who has spent the most money.*/
39
40 SELECT customer.customer_id, first_name, last_name, SUM(total) AS total_spending
41 FROM customer
42 JOIN invoice ON customer.customer_id = invoice.customer_id
43 GROUP BY customer.customer_id
44 ORDER BY total_spending DESC
45 LIMIT 1;
46
47
48
49
50 /* Question Set 2 - Moderate */
51
52 /* Q1: Write query to return the email, first name, last name, & Genre of all Rock Music listeners
53 Return your list ordered alphabetically by email starting with A. */
54
55 /*Method 1 */
56
57 SELECT DISTINCT email,first_name, last_name
58 FROM customer
59 JOIN invoice ON customer.customer_id = invoice.customer_id
60 JOIN invoiceline ON invoice.invoice_id = invoiceline.invoice_id
61 WHERE track_id IN(
62     SELECT track_id FROM track
63     JOIN genre ON track.genre_id = genre.genre_id
64     WHERE genre.name LIKE 'Rock'
65 )
66 ORDER BY email;
67
68
69 /* Method 2 */
70
71 SELECT DISTINCT email AS Email,first_name AS FirstName, last_name AS LastName, genre.name AS Name
72 FROM customer
73 JOIN invoice ON invoice.customer_id = customer.customer_id
74 JOIN invoiceline ON invoiceline.invoice_id = invoice.invoice_id
75 JOIN track ON track.track_id = invoiceline.track_id
76 JOIN genre ON genre.genre_id = track.genre_id
77 WHERE genre.name LIKE 'Rock'
78 ORDER BY email;
```

```
79
80
81  /* Q2: Let's invite the artists who have written the most rock music in our dataset.
82  Write a query that returns the Artist name and total track count of the top 10 rock bands. */
83
84  SELECT artist.artist_id, artist.name, COUNT(artist.artist_id) AS number_of_songs
85  FROM track
86  JOIN album ON album.album_id = track.album_id
87  JOIN artist ON artist.artist_id = album.artist_id
88  JOIN genre ON genre.genre_id = track.genre_id
89  WHERE genre.name LIKE 'Rock'
90  GROUP BY artist.artist_id
91  ORDER BY number_of_songs DESC
92  LIMIT 10;
93
94
95  /* Q3: Return all the track names that have a song length longer than the average song length.
96  Return the Name and Milliseconds for each track. Order by the song length with the longest songs 1
97
98  SELECT name, milliseconds
99  FROM track
100 WHERE milliseconds > (
101     SELECT AVG(milliseconds) AS avg_track_length
102     FROM track )
103 ORDER BY milliseconds DESC;
104
105
106
107
108  /* Question Set 3 - Advance */
109
110  /* Q1: Find how much amount spent by each customer on artists? Write a query to return customer na
111
112  /* Steps to Solve: First, find which artist has earned the most according to the InvoiceLines. Now
113  which customer spent the most on this artist. For this query, you will need to use the Invoice, In
114  Album, and Artist tables. Note, this one is tricky because the Total spent in the Invoice table mi
115  so you need to use the InvoiceLine table to find out how many of each product was purchased, and t
116  for each artist. */
117
118  WITH best_selling_artist AS (
119      SELECT artist.artist_id AS artist_id, artist.name AS artist_name, SUM(invoice_line.unit_pr
120      FROM invoice_line
121      JOIN track ON track.track_id = invoice_line.track_id
122      JOIN album ON album.album_id = track.album_id
123      JOIN artist ON artist.artist_id = album.artist_id
124      GROUP BY 1
125      ORDER BY 3 DESC
126      LIMIT 1
127  )
```

```

128 SELECT c.customer_id, c.first_name, c.last_name, bsa.artist_name, SUM(il.unit_price*il.quantity) AS total_amount
129 FROM invoice i
130 JOIN customer c ON c.customer_id = i.customer_id
131 JOIN invoice_line il ON il.invoice_id = i.invoice_id
132 JOIN track t ON t.track_id = il.track_id
133 JOIN album alb ON alb.album_id = t.album_id
134 JOIN best_selling_artist bsa ON bsa.artist_id = alb.artist_id
135 GROUP BY 1,2,3,4
136 ORDER BY 5 DESC;
137
138
139 /* Q2: We want to find out the most popular music Genre for each country. We determine the most po
140 with the highest amount of purchases. Write a query that returns each country along with the top G
141 the maximum number of purchases is shared return all Genres. */
142
143 /* Steps to Solve: There are two parts in question- first most popular music genre and second nee
144
145 /* Method 1: Using CTE */
146
147 WITH popular_genre AS
148 (
149     SELECT COUNT(invoice_line.quantity) AS purchases, customer.country, genre.name, genre.genre_id
150     ROW_NUMBER() OVER(PARTITION BY customer.country ORDER BY COUNT(invoice_line.quantity) DESC
151     FROM invoice_line
152     JOIN invoice ON invoice.invoice_id = invoice_line.invoice_id
153     JOIN customer ON customer.customer_id = invoice.customer_id
154     JOIN track ON track.track_id = invoice_line.track_id
155     JOIN genre ON genre.genre_id = track.genre_id
156     GROUP BY 2,3,4
157     ORDER BY 2 ASC, 1 DESC
158 )
159 SELECT * FROM popular_genre WHERE RowNo <= 1
160
161
162 /* Method 2: : Using Recursive */
163
164 WITH RECURSIVE
165     sales_per_country AS(
166         SELECT COUNT(*) AS purchases_per_genre, customer.country, genre.name, genre.genre_
167         FROM invoice_line
168         JOIN invoice ON invoice.invoice_id = invoice_line.invoice_id
169         JOIN customer ON customer.customer_id = invoice.customer_id
170         JOIN track ON track.track_id = invoice_line.track_id
171         JOIN genre ON genre.genre_id = track.genre_id
172         GROUP BY 2,3,4
173         ORDER BY 2
174     ),
175     max_genre_per_country AS (SELECT MAX(purchases_per_genre) AS max_genre_number, country
176     FROM sales_per_country

```

```
177         GROUP BY 2
178         ORDER BY 2)
179
180 SELECT sales_per_country.*
181 FROM sales_per_country
182 JOIN max_genre_per_country ON sales_per_country.country = max_genre_per_country.country
183 WHERE sales_per_country.purchases_per_genre = max_genre_per_country.max_genre_number;
184
185
186 /* Q3: Write a query that determines the customer that has spent the most on music for each country
187 Write a query that returns the country along with the top customer and how much they spent.
188 For countries where the top amount spent is shared, provide all customers who spent this amount. */
189
190 /* Steps to Solve: Similar to the above question. There are two parts in question-
191 first find the most spent on music for each country and second filter the data for respective cust
192
193 /* Method 1: using CTE */
194
195 WITH Customter_with_country AS (
196     SELECT customer.customer_id,first_name,last_name,billing_country,SUM(total) AS tot
197     ROW_NUMBER() OVER(PARTITION BY billing_country ORDER BY SUM(total) DESC) AS RowNo
198     FROM invoice
199     JOIN customer ON customer.customer_id = invoice.customer_id
200     GROUP BY 1,2,3,4
201     ORDER BY 4 ASC,5 DESC)
202 SELECT * FROM Customter_with_country WHERE RowNo <= 1
203
204
205 /* Method 2: Using Recursive */
206
207 WITH RECURSIVE
208     customter_with_country AS (
209         SELECT customer.customer_id,first_name,last_name,billing_country,SUM(total) AS tot
210         FROM invoice
211         JOIN customer ON customer.customer_id = invoice.customer_id
212         GROUP BY 1,2,3,4
213         ORDER BY 2,3 DESC),
214
215     country_max_spending AS(
216         SELECT billing_country,MAX(total_spending) AS max_spending
217         FROM customter_with_country
218         GROUP BY billing_country)
219
220 SELECT cc.billing_country, cc.total_spending, cc.first_name, cc.last_name, cc.customer_id
221 FROM customter_with_country cc
222 JOIN country_max_spending ms
223 ON cc.billing_country = ms.billing_country
224 WHERE cc.total_spending = ms.max_spending
225 ORDER BY 1;
```

```
226  
227  
228  /* source: www.youtube.com/@RishabhMishraOfficial */  
229  
230  /* Thank You :) */
```

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