

# SQL Project Q&A

## Beginner Level Questions

### Q1. Senior most employee based on job title

Name :- Madan Mohan

Job title:- Senior General Manager

### Q2. Which countries have most Invoices

Top 3 Countries

1. USA - 131
2. Canada - 76
3. Brazil - 61

### Q3. What are the Top 3 values of total invoices

1. 23.759999999999998
2. 19.8
3. 19.8

**Q4. Which City has the best customers. Return both city name and Invoice total**

1. PRAGUE - 273.24

**Q5 Which is the best customer**

1. R. Madhav - \$144.54 worth of orders

## **Moderate level Questions**

**Q1. Only Rock music listeners and their details alphabetical wise.**

```
SELECT c.customer_id, c.email AS em, c.first_name, c.last_name, gn.name AS GENRE_name
FROM customer AS c
JOIN invoice AS i
ON c.customer_id = i.customer_id
JOIN invoice_line AS inv
ON i.invoice_id = inv.invoice_id
JOIN track AS tr
```

ON inv.track\_id = tr.track\_id

JOIN genre AS gn

ON tr.genre\_id = gn.genre\_id

WHERE gn.name = 'Rock'

ORDER BY em asc

Customer ID	Customer Email	First Name	Last name	Genre
32	aaronmitchell@yahoo.ca	Aaron	Mitchell	Rock
11	alero@uol.com.br	Alexandre	Rocha	Rock
7	astrid.gruber@apple.at	Astrid	Gruber	Rock
4	bjorn.hansen@yahoo.no	Bjørn	Hansen	Rock
39	camille.bernard@yahoo.fr	Camille	Bernard	Rock
8	daan_peeters@apple.be	Daan	Peeters	Rock
56	diego.gutierrez@yahoo.ar	Diego	Gutiérrez	Rock

**Q2. Top Ten Artists who have Written the most Rock Music.**

**OUTPUT:**

Artist/Band Name	No. Of Songs
Led Zeppelin	114
U2	112
Deep Purple	92
Iron Maiden	81
Pearl Jam	54
Van Halen	52
Queen	45
The Rolling Stones	41
Creedence Clearwater Revival	40
Kiss	35

**Q3. Select songs whose length is greater than the Average song length, and arrange them with longest song being at top.**

Song Name	Song Length (In Minutes)
Occupation / Precipice	88.11588333
Through a Looking Glass	84.81396667
Greetings from Earth, Pt. 1	49.33821667
The Man With Nine Lives	49.2833
Battlestar Galactica, Pt. 2	49.26801667

## ADVANCED SQL QUESTIONS

**Q1. Find Amount Spent by each customer artist wise.**

```
SELECT first_name,last_name, ar.name AS Artist_Name, SUM(inv.unit_price * inv.quantity) AS PRICE
```

```
FROM customer AS c
```

```
JOIN invoice AS i
```

```
ON c.customer_id = i.customer_id
```

```
JOIN invoice_line AS inv
```

```
ON i.invoice_id = inv.invoice_id
```

```
JOIN track AS tr
```

```
ON inv.track_id = tr.track_id
```

```
JOIN album AS alb
```

ON tr.album\_id = alb.album\_id

JOIN artist AS ar

ON alb.artist\_id = ar.artist\_id

GROUP BY 1, 2, 3

ORDER BY PRICE desc

**OUTPUT :**

**TOP5**

First Name	Last Name	Artist/Band Name	Sales
Hugh	O'Reilly	Queen	27.719
Wyatt	Girard	Frank Sinatra	23.759
Aaron	Mitchell	James Brown	19.799
François	Tremblay	The Who	19.799
Robert	Brown	Creedence Clearwater Revival	19.799

**Q2. Show the Countrywise best selling Genre**

### USING A CTE AND ROW\_NUMBER FUNCTION ###

WITH popular\_genre AS

```
(  
    SELECT country, g.name AS GENRE_NAME, count(inv.quantity) AS Sales,  
        ROW_NUMBER() OVER(PARTITION BY country ORDER BY count(inv.quantity) desc) AS  
ROWNO  
  
    FROM customer c  
  
    JOIN invoice i  
  
    ON c.customer_id = i.customer_id  
  
    JOIN invoice_line inv  
  
    ON i.invoice_id = inv.invoice_id  
  
    JOIN track tr  
  
    ON inv.track_id = tr.track_id  
  
    JOIN genre g  
  
    ON tr.genre_id = g.genre_id  
  
    GROUP BY 1,2  
  
    ORDER BY 1 ASC, Sales desc  
  
)
```

```
SELECT country, genre_name, sales FROM popular_genre  
  
WHERE ROWNO <= 1
```

Country	Genre name	Sales
Argentina	Alternative & Punk	17
Australia	Rock	34
Austria	Rock	40
Belgium	Rock	26
Brazil	Rock	205
Canada	Rock	333
Chile	Rock	61
Czech Republic	Rock	143
Denmark	Rock	24
Finland	Rock	46

**Q3. Find Out the customer with the most purchases from each country.**

WITH best\_customers AS



```
(  
    SELECT first_name, last_name, country, SUM(unit_price*quantity) AS SALES,  
    ROW_NUMBER() OVER(PARTITION BY country ORDER BY SUM(unit_price*quantity) desc) AS  
ROWNO  
  
    FROM customer c  
  
    JOIN invoice i  
  
    ON c.customer_id = i.customer_id  
  
    JOIN invoice_line inv  
  
    ON i.invoice_id = inv.invoice_id  
  
  
    GROUP BY 1,2,3  
  
    ORDER BY 3 ASC, SALES desc  
  
)
```

```
SELECT first_name, last_name, country, sales FROM best_customers  
  
WHERE ROWNO <= 1
```

**OUTPUT:**

**TOP 10**

First Name	Last Name	Country	Sales
Diego	Gutiérrez	Argentina	39.59
Mark	Taylor	Australia	81.17
Astrid	Gruber	Austria	69.30
Daan	Peeters	Belgium	60.39
Luís	Gonçalves	Brazil	108.89
François	Tremblay	Canada	99.98
Luis	Rojas	Chile	97.01
R	Madhav	Czech Republic	144.53
Kara	Nielsen	Denmark	37.61
Terhi	Hämäläinen	Finland	79.19