



SPOTIFY SQL PROJECT

the Woods

The Lovely
Little Playlist

Songs to Sing
In The Show

Happy Pop Hits

Have a Great Day!

Conscious

Serotonin

A Pe



**What are the total sales and
revenue generated by each artist?**

QUERY

```
WITH cte AS (  
    SELECT il.unit_price,il.quantity,ar.artist_id,ar.name  
    FROM invoice_line il  
    INNER JOIN track t ON il.track_id = t.track_id  
    INNER JOIN album a ON t.album_id = a.album_id  
    INNER JOIN artist ar ON a.artist_id = ar.artist_id  
)  
select name as Artist,round(sum(unit_price*quantity),2) as total_revenue from cte group by name;
```

OUTPUT

Artist	total_revenue
Guns N' Roses	122.76
Amy Winehouse	96.03
Green Day	103.95
The Rolling Stones	115.83
Led Zeppelin	70.29
Eric Clapton	93.06
R.E.M.	102.96
Buddy Guy	22.77
Deep Purple	50.49
Antônio Carlos Jobim	19.8
The Police	79.2
Soundgarden	51.48
The Doors	82.17
The King's Singers	0.99



**Which albums have generated the
highest revenue (Top 5)?**

QUERY

```
WITH revenue_cte AS (  
  SELECT  
    a.title,  
    ROUND(SUM(il.unit_price * il.quantity), 2) AS Total_Revenue  
  FROM invoice_line il  
  INNER JOIN track t ON il.track_id = t.track_id  
  INNER JOIN album a ON t.album_id = a.album_id  
  GROUP BY a.title  
)  
SELECT title as Albums FROM revenue_cte ORDER BY Total_Revenue DESC LIMIT 5;
```

OUTPUT

Albums
Are You Experienced
Faceless
Mezmerize
Get Born
The Doors



Which genres contribute most to revenue (Top 5)?

QUERY

```
with genre_revenue_cte as (select g.name,round(sum(il.unit_price*il.quantity)) as total_revenue from invoice_line il
INNER JOIN track t ON il.track_id = t.track_id
    INNER JOIN genre g on t.genre_id=g.genre_id group by g.name)
select name as Genres from genre_revenue_cte order by total_revenue desc limit 5;
```

OUTPUT

Genres
Rock
Metal
Alternative & Punk
Latin
R&B/Soul



**What is the trend of sales over time
(yearly)?**

QUERY

```
SELECT year(invoice_date) AS Year ,round(sum(total),2) as Total_Revenue  
FROM invoice group by YEAR;
```

OUTPUT

Year	Total_Revenue
2017	1201.86
2018	1147.41
2019	1221.66
2020	1138.5



**Which customers have made the
most purchases (top 5)?**

QUERY

```
select c.customer_id,concat(c.first_name,' ',c.last_name) as name, round(sum(i.total),2) as total_purchase from  
customer c inner join invoice i on c.customer_id=i.customer_id  
group by c.customer_id,name order by total_purchase desc limit 5;
```

OUTPUT

customer_id	name	total_purchase
5	František Wichterlov	144.54
6	Helena Holáková	128.7
46	Hugh O'Reilly	114.84
58	Manoj Pareek	111.87
1	Luís Gonçalves	108.9



**Highest grossing city in each
country?**

QUERY

```
with cte as (select billing_city,billing_country , sum(total) as total from invoice group by billing_city,billing_country)
select Country, City from
(select billing_country as Country , billing_city as City,
dense_rank() over(partition by billing_country order by total desc) as rnk from cte) as cte2 where rnk=1;
```

OUTPUT

Country	City
Argentina	Buenos Aires
Australia	Sidney
Austria	Vienne
Belgium	Brussels
Brazil	SÃ£o Paulo
Canada	MontrÃ©al
Chile	Santiago
Czech Republic	Prague
Denmark	Copenhagen
Finland	Helsinki
France	Paris
Germany	Berlin
Hungary	Budapest
India	Delhi
Ireland	Dublin
Italy	Rome
Netherlands	Amsterdam



Popular genre in each country ?

QUERY

```
with cte as (select g.name,i.billing_country,round(sum(i.total),2) as total from genre g inner join track t on g.genre_id=t.genre_id
inner join invoice_line il on t.track_id=il.track_id
inner join invoice i on il.invoice_id=i.invoice_id
group by g.name,i.billing_country)
select name as Genre,billing_country as Country from
(select * , rank() over(partition by billing_country order by total desc) as rnk from cte ) as cte2 where rnk=1;
```

OUTPUT

Genre	Country
Alternative & Punk	Argentina
Alternative & Punk	Australia
Rock	Austria
Rock	Belgium
Rock	Brazil
Rock	Canada
Rock	Chile
Rock	Czech Republic
Rock	Denmark
Rock	Finland
Rock	France
Rock	Germany
Rock	Hungary
Rock	India
Rock	Ireland
Rock	Italy
Rock	Netherlands



**Which tracks are the most
purchased or streamed (Top 5)?**

QUERY

```
select t.name as Track_Name, count(t.name) as Total_No_Of_Purchases from track t
inner join invoice_line il on
t.track_id=il.track_id
group by Track_Name order by Total_No_Of_Purchases desc limit 5;
```

OUTPUT

Track_Name	Total_No_Of_Purchases
War Pigs	33
Changes	14
Are You Experienced?	14
Highway Chile	14
Put The Finger On You	13



**Which employee has generated the
highest total invoice amount?**

QUERY

```
select e.employee_id,e.first_name as name,round(sum(i.total),2) as Invoice_Amount  
from invoice i inner join customer c on i.customer_id=c.customer_id  
inner join employee e on c.support_rep_id=e.employee_id  
group by e.employee_id,e.first_name order by Invoice_Amount desc limit 1;
```

OUTPUT

employee_id	name	Invoice_Amount
3	Jane	1731.51



**What is the total revenue generated
by each employee ?**

QUERY

```
select e.employee_id,e.first_name as Employee_Name, round(sum(i.total),2) as Revenue_Generated
from invoice i inner join customer c on i.customer_id=c.customer_id
inner join employee e on c.support_rep_id=e.employee_id
group by e.employee_id,e.first_name order by Revenue_Generated desc;
```

OUTPUT

employee_id	Employee_Name	Revenue_Generated
3	Jane	1731.51
4	Margaret	1584
5	Steve	1393.92



What is the number of invoices per customer ?

QUERY

```
select CONCAT(c.first_name," ",c.last_name) as name, count(*) as total_no_of_invoices from  
customer c inner join invoice i on c.customer_id=i.customer_id  
group by name order by total_no_of_invoices desc;
```

OUTPUT

name	total_no_of_invoices
František Wichterlov	18
Madalena Sampaio	16
Fernanda Ramos	15
Edward Francis	13
Hugh O'Reilly	13
Luis Goncalves	13
Manoj Pareek	13
Luis Rojas	13
João Fernandes	13
Richard Cunningham	12
Dan Miller	12
Eduardo Martins	12
Isabelle Mercier	12
Heather Leacock	12
Ellie Sullivan	12
Jack Smith	12
Helena Holm	12



**Which city has the highest number
of customers ?**

QUERY

```
SELECT City,COUNT(Customer_Id) AS CustomerCount  
FROM Customer  
GROUP BY City ORDER BY CustomerCount DESC LIMIT 1;
```

OUTPUT

City	CustomerCount
Prague	2



Which tracks are the most sold, and how many times were they purchased ?

QUERY

```
SELECT t.Name AS TrackName, COUNT(il.Invoice_Line_Id) AS PurchaseCount
FROM Invoice_Line il JOIN Track t ON il.Track_Id = t.Track_Id
GROUP BY t.Name ORDER BY PurchaseCount DESC;
```

OUTPUT

TrackName	PurchaseCount
War Pigs	33
Are You Experienced?	14
Changes	14
Highway Chile	14
Put The Finger On You	13
Hey Joe	13
Third Stone From The Sun	13
Drain You	12
We Are The Champions	12
Radio/Video	12
Love Or Confusion	12
I Can't Explain	11
51st Anniversary	11
We Will Rock You	11
Old School Hollywood	11
Remember	11
Dead And Broken	11



**Which artists have the most tracks
in the library ?**

QUERY

```
SELECT ar.Name AS ArtistName, COUNT(t.Track_Id) AS TrackCount FROM Artist ar
JOIN
    Album al ON ar.Artist_Id = al.Artist_Id
JOIN
    Track t ON al.Album_Id = t.Album_Id
GROUP BY
    ar.Name
ORDER BY
    TrackCount DESC;
```

OUTPUT

ArtistName	TrackCount
Iron Maiden	213
U2	135
Led Zeppelin	114
Metallica	112
Deep Purple	92
Lost	92
Pearl Jam	67
Lenny Kravitz	57
Various Artists	56
The Office	53
Faith No More	52
Van Halen	52
Os Paralamas...	49
Eric Clapton	48
Red Hot Chili ...	48
Queen	45
Foo Fighters	44



**Which employees are interesting
the most customers ?**

QUERY

```
SELECT
    e.Employee_Id,
    concat(e.first_name, ' ', e.last_name) AS EmployeeName,
    COUNT(c.Customer_Id) AS CustomerCount
FROM
    Employee e
LEFT JOIN
    Customer c ON e.Employee_Id = c.Support_Rep_Id
GROUP BY
    e.Employee_Id,
    EmployeeName
ORDER BY
    CustomerCount DESC;
```

OUTPUT

Employee_Id	EmployeeName	CustomerCount
3	Jane Peacock	21
4	Margaret Park	20
5	Steve Johnson	18
1	Andrew Adams	0
2	Nancy Edwards	0
6	Michael Mitchell	0
7	Robert King	0
8	Laura Callahan	0
9	Mohan Madan	0