Music Store Data Analysis

Proposed initial document	
Type of Doc	Project

Q1: Who is the senior most employee based on job title?

```
select * from employee
order by levels desc
Limit 1;
```

Q2. Which countries have the most Invoices?

```
select count(*) as total_count, billing_country
from invoice
group by billing_country
order by total_count desc
```

Q3. What are the top values of total invoice

```
select total from invoice
order by total desc
limit 3
```

Q4. Which city has the best customers? We would like to throw a promotional Music Festival in the city we made the most money. Write a query that returns one city that has the highest sum of invoice totals. Return both the city name & sum of all invoice totals.

```
select sum(total) as invoice_total, billing_city
from invoice
group by billing_city
order by invoice_total desc
```

Q5. Who is the best customer? The customer who has spent the most money will be declared the best.

```
Select c.customer_id, c.first_name, c.last_name, sum(iv.total) as total
from customer c
join invoice iv on c.customer_id=iv.customer_id
```

```
group by c.customer_id
order by total desc
limit 1
```

Q6. Write query to return the email ,first name, last name & genre of all rock music listeners.

```
SELECT DISTINCT c.email,c.first_name,c.last_name
from customer c
join invoice iv ON c.customer_id=iv.customer_id
join invoice_line ivl on iv.invoice_id=ivl.invoice_id
where ivl.track_id in(
select tr.track_id from track tr
join genre ge on tr.genre_id=ge.genre_id
where ge.name like 'Rock'
)
order by c.email;
```

Q7. Return all the track names that have a song length longer than the average song length.Return the name.

```
select name, milliseconds
from track
where milliseconds >(
select avg (milliseconds) as avg_track_length
  from track)
  order by milliseconds desc;
```

Q8. Find how much amount spent by each customer on artists?write a query to return customer name, artist name, total spent.

```
WITH best_selling_artist AS (
    SELECT
        album.artist_id,
        SUM(invoice_line.unit_price * invoice_line.quantity) AS total_sales,
        RANK() OVER (ORDER BY SUM(invoice_line.unit_price * invoice_line.quantity) DESC) AS rank
    FROM invoice_line
    JOIN track ON track.track_id = invoice_line.track_id
    JOIN album ON album.album_id = track.album_id
    GROUP BY 1
)
SELECT
    customer.customer_id,
    customer.first_name,
    customer.last_name,
    SUM(invoice_line.unit_price * invoice_line.quantity) AS amount_spent
FROM invoice
JOIN customer ON customer.customer_id = invoice.customer_id
JOIN invoice_line ON invoice_line.invoice_id = invoice.invoice_id
JOIN track ON track.track_id = invoice_line.track_id
JOIN album ON album.album_id = track.album_id
JOIN best_selling_artist ON best_selling_artist.artist_id = album.artist_id
```

```
WHERE best_selling_artist.rank = 1
GROUP BY 1,2,3
ORDER BY 4 DESC;
```

Q9. Find out the most popular music genre for each country. most popular genre is defined as the genre with the highest amount of purchases. Write a query that returns each country along with the top genre.For countries where the maximum number of purchases is shared return all genres.

```
WITH popular_genre AS (
  SELECT
    COUNT(invoice_line.quantity) AS purchases,
    customer.country,
    genre.name,
    genre.genre_id,
    ROW_NUMBER() OVER(PARTITION BY customer.country ORDER BY COUNT(invoice_line.quantity) DESC) AS rowno
  FROM invoice_line
  INNER JOIN invoice ON invoice.invoice_id = invoice_line.invoice_id
  INNER JOIN customer ON customer.customer_id = invoice.customer_id
  INNER JOIN track ON track.track_id = invoice_line.track_id
  INNER JOIN genre ON genre.genre_id = track.genre_id
  GROUP BY 2,3,4
)
SELECT
  purchases,
  country,
  name,
  genre_id
FROM popular_genre
WHERE rowno <= 1
ORDER BY country ASC, purchases DESC;
```