

PE09

IS456 Database Systems Management

Task 1

- Imagine we would like to throw a promotional Music Festival in the city we made the most money.
- Write a query that returns the 1 city that has the highest sum of invoice totals.
- Return both the city name and the sum of all invoice totals. So, which city has the best customers?

```
SELECT DISTINCT BillingCity, SUM(Total) AS Sum_Total
FROM invoices
GROUP BY BillingCountry
ORDER BY Sum_Total DESC
LIMIT 1;
```

```
PS D:\> cd .\SQLiteStudio\
PS D:\SQLiteStudio> sqlite3 chinook.db
SQLite version 3.39.2 2022-07-21 15:24:47
Enter ".help" for usage hints.
sqlite> SELECT DISTINCT BillingCity, SUM(Total) AS Sum_Total
...> FROM invoices
...> GROUP BY BillingCountry
...> ORDER BY Sum_Total DESC
...> LIMIT 1;
Boston|523.06
sqlite> █
```

Task 2 Scenario:

- Consider that we know our customers love rock music, and we can decide which musicians to invite to play at the concert.
- 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.

Note: You should choose the right tables and join them.

```
SELECT a.Name, COUNT(g.Name) AS Total_Tracks
FROM artists a
JOIN albums al ON a.ArtistId = al.ArtistId
JOIN tracks t ON al.AlbumId = t.AlbumId
JOIN genres g ON t.GenreId = g.GenreId
WHERE g.Name = "Rock"
```

```
GROUP BY a.Name
ORDER BY Total_Tracks DESC
LIMIT 10;
```

```
Parse error: no such column: al.TrackId
sqlite> SELECT a.Name, COUNT(g.Name) AS Total_Tracks
...> FROM artists a
...> JOIN albums al ON a.ArtistId = al.ArtistId
...> JOIN tracks t ON al.AlbumId = t.AlbumId
...> JOIN genres g ON t.GenreId = g.GenreId
...> WHERE g.Name = "Rock"
...> GROUP BY a.Name
...> ORDER BY Total_Tracks
...> LIMIT 10;
Dread Zeppelin|1
The Posies|2
Accept|4
Terry Bozzio, Tony Levin & Steve Stevens|7
Frank Zappa & Captain Beefheart|9
Pink Floyd|9
Jamiroquai|10
Joe Satriani|10
Marillion|10
Men At Work|10
sqlite> SELECT a.Name, COUNT(g.Name) AS Total_Tracks
...> FROM artists a
...> JOIN albums al ON a.ArtistId = al.ArtistId
...> JOIN tracks t ON al.AlbumId = t.AlbumId
...> JOIN genres g ON t.GenreId = g.GenreId
...> WHERE g.Name = "Rock"
...> GROUP BY a.Name
...> ORDER BY Total_Tracks DESC
...> LIMIT 10;
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
sqlite> █
```