WuZ.CS5200.SQL-Queries.Sp24

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```
library(RSQLite)
dbcon <- dbConnect(RSQLite::SQLite(), "MediaDB.db")
```

```
select LastName, FirstName, Title, HireDate
from employees
order by LastName
```

Table 1: 8 records

LastName	FirstName	Title	HireDate
Adams	Andrew	General Manager	2002-08-14 00:00:00
Callahan	Laura	IT Staff	2004-03-04 00:00:00
Edwards	Nancy	Sales Manager	2002-05-01 00:00:00
Johnson	Steve	Sales Support Agent	2003-10-17 00:00:00
King	Robert	IT Staff	2004-01-02 00:00:00
Mitchell	Michael	IT Manager	2003-10-17 00:00:00
Park	Margaret	Sales Support Agent	2003-05-03 00:00:00
Peacock	Jane	Sales Support Agent	2002-04-01 00:00:00

```
select g.Name, count(distinct t.AlbumId) as NumberOfAlbums
from genres g left join tracks t using(GenreId)
group by g.GenreId
limit 10
```

Table 2: Displaying records 1 - 10

Name	NumberOfAlbums
Rock	117
Jazz	13
Metal	35
Alternative & Punk	23
Rock And Roll	1
Blues	7
Latin	39
Reggae	4
Pop	3
Soundtrack	4

```
select * from media_types
```

Table 3: 5 records

MediaTypeId	Name
1	MPEG audio file
2	Protected AAC audio file
3	Protected MPEG-4 video file
4	Purchased AAC audio file
5	AAC audio file

```
select g.Name, count(t.TrackId) as NumberOfTracks
from genres g join tracks t using(GenreId)
group by g.Name
having NumberOfTracks >= 4
order by NumberOfTracks desc
limit 10
```

Table 4: Displaying records 1 - 10

Name	NumberOfTracks
Rock	1297
Latin	579
Metal	374
Alternative & Punk	332
Jazz	130
TV Shows	93
Blues	81
Classical	74
Drama	64
R&B/Soul	61

```
select LastName, FirstName
from employees
order by strftime("%Y %m", BirthDate) desc
limit 1
```

Table 5: 1 records

LastName	FirstName
Peacock	Jane

```
select distinct State, Country
from customers
```

Table 6: Displaying records 1 - 10

State	Country
SP	Brazil
NA	Germany
QC	Canada
NA	Norway

State	Country
NA	Czech Republic
NA	Austria
NA	Belgium
NA	Denmark
RJ	Brazil
DF	Brazil

```sql
select c.State, count(i.invoiceId) as NumberOfPerchases
from invoices i join customers c using(CustomerId)
where Country = "Brazil"
group by c.State
having NumberOfPerchases >= 2
order by c.State
```

Table 7: 3 records

State	NumberOfPerchases
DF	7
RJ	7
SP	21

```sql
select count(*) as NumberOfEmployeeNotWorked
from employees e
where e.EmployeeId not in
(
select distinct SupportRepId
from customers
)
```

Table 8: 1 records

NumberOfEmployeeNotWorked
5

```sql
select count(*) as NumberOfAlbums
from albums
where Title like "%Classic%" and Title not like "%Hard%"
```

Table 9: 1 records

NumberOfAlbums
2

```sql
select count(*)
from genres
```

Table 10: 1 records

count(*)
25

```
select m.Name, round(sum(t.Milliseconds) / 3600000.0, 1) as hours
from media_types m join tracks t using(MediaTypeId)
group by m.MediaTypeId
```

Table 11: 5 records

Name	hours
MPEG audio file	223.8
Protected AAC audio file	18.5
Protected MPEG-4 video file	139.3
Purchased AAC audio file	0.5
AAC audio file	0.8

```
select al.Title, ar.Name
from artists ar join albums al on (ar.ArtistId = al.ArtistId)
join tracks t on (t.AlbumId = al.AlbumId)
group by al.AlbumId
order by sum(t.Milliseconds) desc
limit 1
```

Table 12: 1 records

Title	Name
Lost, Season 3	Lost

```
select g.GenreId, g.Name
from genres g left join tracks t using(GenreId)
group by g.GenreId
order by sum(g.GenreId)
limit 1
```

Table 13: 1 records

GenreId	Name
25	Opera

```
select m.MediaTypeId, m.Name
from media_types m left join tracks t using(MediaTypeId)
group by m.MediaTypeId
order by sum(m.MediaTypeId)
limit 1
```

Table 14: 1 records

MediaTypeId	Name
4	Purchased AAC audio file

```
select c.Country, count(distinct c.CustomerId) as NumberOfCustomer, sum(it.UnitPrice * it.Quantity) as T
from customers c join invoices i using(CustomerId)
join invoice_items it using(invoiceId)
group by c.Country
limit 10
```

Table 15: Displaying records 1 - 10

Country	NumberOfCustomer	TotalSpent
Argentina	1	37.62
Australia	1	37.62
Austria	1	42.62
Belgium	1	37.62
Brazil	5	190.10
Canada	8	303.96
Chile	1	46.62
Czech Republic	2	90.24
Denmark	1	37.62
Finland	1	41.62

```
with tmp as (
select it.UnitPrice, it.Quantity,
  case
    when m.Name like "%AAC%" then "AAC"
    when m.Name like "%MPEG%" then "MPEG"
  end
  as Name
from invoices join invoice_items it using(invoiceId)
join tracks using(TrackId)
join media_types m using(MediaTypeId)
),

totals as (
select Name, sum(UnitPrice * Quantity) as total
from tmp
group by Name
)

select abs(a.total - b.total) as difference
from totals a, totals b
where a.Name = "AAC" and b.Name = "MPEG"
```

Table 16: 1 records

difference
2025.66

```sql
select c.Country
from customers c
group by c.Country
order by sum(customerId) desc
limit 1
```

Table 17: 1 records

Country
USA

```sql
select sum(TrackId) as NumberOfRecords
from artists ar join albums using(ArtistId)
join tracks using(AlbumId)
group by ArtistId
having ar.Name like "%Amy Winehouse%"
```

Table 18: 1 records

NumberOfRecords
79718

```sql
select ar.Name, sum(it.UnitPrice * Quantity) as TotalEarn
from artists ar join albums using(ArtistId)
join tracks using(AlbumId)
join invoice_items it using(TrackId)
join invoices using(invoiceId)
group by ArtistId
order by TotalEarn desc
limit 10
```

Table 19: Displaying records 1 - 10

Name	TotalEarn
Iron Maiden	138.60
U2	105.93
Metallica	90.09
Led Zeppelin	86.13
Lost	81.59
The Office	49.75
Os Paralamas Do Sucesso	44.55
Deep Purple	43.56
Faith No More	41.58
Eric Clapton	39.60

```sql
select ar.Name, sum(it.Quantity) as PurchasedTimes
from artists ar join albums using(ArtistId)
join tracks using(AlbumId)
join invoice_items it using(TrackId)
join invoices using(invoiceId)
```

```
join customers c using(CustomerId)
where c.City = "Paris"
group by ar.ArtistId
order by sum(it.Quantity) desc
limit 1
```

Table 20: 1 records

Name	PurchasedTimes
Red Hot Chili Peppers	8

```
dbDisconnect(dbcon)
```