





Practice SQL Nested Queries

This page provides exercises and solutions to help you practice SQL nested queries. These exercises are based on the ACDB database, and may be performed online or by running the sample schema scripts on your local database server. For additional exercises in other subjects, use this link.

Exercises

- 1. Display the first name, last name, city and state for all customers who live in the same state as customer number 170 (*Customers* table).
- 2. Display the package number, internet speed and sector number for all packages whose sector number equals to the sector number of package number 10 (*Packages* table).
- 3. Display the first name, last name and join date for all customers who joined the company after customer number 540 (*Customers* table).
- 4. Display the first name, last name and join date for all customers who joined the company on the same month and on the same year as customer number 372 (*Customers* table).
- 5. Display the first name, last name, city, state and package number for all customers whose internet speed is "5Mbps" (*Customers* and *Packages* table).
- 6. Display the package number, internet speed and strt_date (the date it became available) for all packages who became available on the same year as package number 7 (*Packages* table).
- 7. Display the first name, monthly discount, package number, main phone number and secondary phone number for all customers whose sector name is Business (*Customers*, *Packages* and *Sectors* tables).
- 8. Display the first name, monthly discount and package number for all customers whose monthly payment is greater than the average monthly payment (*Customers* and *Packages* table).

- 9. Display the first name, city, state, birthdate and monthly discount for all customers who was born on the same date as customer number 179, and whose monthly discount is greater than the monthly discount of customer number 107 (*Customers* table)
- 10. Display all the data from Packages table for packages whose internet speed equals to the internet speed of package number 30, and whose monthly payment is greater than the monthly payment of package number 7 (*Packages* table).
- 11. Display the package number, internet speed, and monthly payment for all packages whose monthly payment is greater than the maximum monthly payment of packages with internet speed equals to "5Mbps" (*Packages* table).
- 12. Display the package number, internet speed and monthly payment for all packages whose monthly payment is greater than the minimum monthly payment of packages with internet speed equals to "5Mbps" (*Packages* table).
- 13. Display the package number, internet speed and monthly payment for all packages whose monthly payment is <u>lower than</u> <u>the minimum</u> monthly payment of packages with internet speed equals to "5Mbps" (*Packages* table).
- 14. Display the first name, monthly discount and package number for all customers whose monthly discount is lower than the average monthly discount, and whose package number is the same as customer named "Kevin"

Solutions

These solutions apply to SQL Server and Oracle.

```
01 -- 1
02    SELECT first_name , last_name , state, city
03    FROM customers
04    WHERE state = (SELECT state FROM customers WHERE customer_id
05
06    -- 2
07    SELECT pack_id, speed , sector_id
08    FROM packages
```

```
09
     WHERE sector_id = (SELECT sector_id FROM packages WHERE pack.
10
     -- 3
11
     SELECT first_name , last_name , join_date
12
13
     FROM customers
14
     WHERE join_date > (SELECT join_date FROM customers WHERE cust
15
16
     -- 4
17
     SELECT first_name , last_name , join_date
18
     FROM customers
19
     WHERE year(join_date) = (SELECT year(join_date) FROM customer
20
     AND
    month(join_date) = (SELECT month(join_date) FROM customers WI
21
22
23
     -- 5
24
     SELECT first_name , last_name , city , state, pack_id
25
    FROM customers
    WHERE pack_id IN (SELECT pack_id FROM packages WHERE speed =
26
27
28
     -- 6
29
     SELECT pack_id , speed , strt_date
30
     FROM packages
31
     WHERE year(strt_date) = (SELECT year(strt_date) FROM package:
32
33
     -- 7
34
     SELECT first_name , monthly_discount , pack_id , main_phone_i
35
                         secondary_phone_num
36
     FROM customers
37
     WHERE pack_id IN
38
             (SELECT pack_id
39
                 FROM packages
40
                 WHERE sector_id IN
41
                         (
                             SELECT sector_id
42
                             FROM sectors
43
                             WHERE sector_name = 'Business'))
44
45
46
     SELECT first_name , monthly_discount, pack_id
47
     FROM customers
```

```
48
     WHERE pack_id IN
49
                      (SELECT pack_id
                       FROM packages
50
51
                       WHERE monthly_payment >
52
                                   (SELECT AVG(monthly_payment)
53
                                    FROM packages))
54
55
     -- 9
56
     SELECT customer_id , first_name , city , state ,birth_date ,
57
     FROM customers
58
     WHERE birth_date =
59
                  (SELECT birth_date FROM customers WHERE customer
60
                   AND
61
                   monthly_discount >
62
                      (SELECT monthly_discount FROM customers WHEI
63
64
     -- 10
     SELECT *
65
66
     FROM packages
67
     WHERE speed =
68
              (SELECT speed FROM packages WHERE pack_id = 30)
69
     AND
70
                  monthly_payment >
71
                  (SELECT monthly_payment FROM packages WHERE pack
72
73
     -- 11
     SELECT pack_id ,speed , monthly_payment
74
75
     FROM packages
76
     WHERE monthly_payment
77
             > ALL(SELECT monthly_payment FROM packages WHERE spec
78
     -- 12
79
80
     SELECT pack_id , speed , monthly_payment
     FROM packages
81
82
     WHERE monthly_payment >
              ANY (SELECT monthly_payment FROM packages WHERE spec
83
84
85
     -- 13
86
     SELECT pack_id , speed , monthly_payment
```

```
FROM packages
87
     WHERE monthly_payment
88
              < ANY (SELECT monthly_payment FROM packages WHERE s
89
90
91
     -- 14
     SELECT first_name ,monthly_discount , pack_id
92
93
     FROM customers
    WHERE monthly_discount <
94
             (SELECT AVG(monthly_discount) FROM customers)
95
96
     AND
97
                  pack_id IN
                  (SELECT pack_id FROM customers WHERE first_name
98
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                                             Twitter
                                                       Print
     ■ Email
```

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