

Exercise 1: SQL Basics - Sets and aggregate functions

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Task 1: Display the names of all clients and actors. Order the results by last name.

| Expected result: | first_name | last_name |
|------------------|------------|----------------|
| | Dan | Aykroyd |
| | Bob | Belcher |
| | Tom | Berenger |
| | Michael | Biehn |
| | Tom | Cruise |
| | Billy | Crystal |
| | Peter | Cushing |
| | Willem | Dafoe |
| | Anthony | Daniels |
| | Robert | De Niro |
| | Carrie | Fisher |
| | Harrison | Ford |
| | Jodie | Foster |
| | Gary | Goodspeed |
| | Brian | Griffin |
| | Alec | Guinness |
| | Linda | Hamilton |
| | Hank | Hill |
| | Harvey | Keitel |
| | Lisa | Kudrow |
| | Peter | Mayhew |
| | Bill | Murray |
| | Gary | Oldman |
| | Natalie | Portman |
| | David | Prowse |
| | Jean | Reno |
| | Rick | Sanchez |
| | Arnold | Schwarzenegger |
| | Emmanuelle | Seigner |
| | Charlie | Sheen |
| | Cybill | Shepherd |
| | Lisa | Simpson |
| | Sigourney | Weaver |

Task 2: Display titles of movies in which both De Niro and Reno played.

| Expected result: | title |
|------------------|-------|
| | Ronin |

Task 3: Display titles of movies that were rented by both Gary Goodspeed and Brian Griffin

Expected result:

| title |
|--------------|
| Ghostbusters |
| Taxi Driver |

Task 4: Display titles of movies that were rented by Gary Goodspeed and were never rented by Brian Griffin

Expected result:

| title |
|--------------------|
| Mission Impossible |
| Ronin |

Task 5: Display names of actors that played in 'Terminator' but never played in 'Ghostbusters'

Expected result:

| last_name |
|----------------|
| Biehn |
| Schwarzenegger |
| Hamilton |

Task 6: Display the price of the most expensive movie in the store

Expected result:

| price |
|-------|
| 10,5 |

Task 7: Display the number of movies produced in 1984

Expected result:

| count |
|-------|
| 2 |

Task 8: How many time movie 'Taxi Driver' was rented?

Expected result:

| count |
|-------|
| 3 |

Task 9: For every year of production, display the average price of the movie. Order the results by year

Expected result:

| year | avg |
|------|------|
| 1976 | 5 |
| 1979 | 10 |
| 1984 | 7 |
| 1986 | 5 |
| 1988 | 8,5 |
| 1994 | 8,5 |
| 1996 | 8,5 |
| 1998 | 9,5 |
| 1999 | 10,5 |

Task 10: What was the average rental time of 'Ronin'?

Expected result:

| avg |
|-----------------|
| 3 days 12:00:00 |

Task 11: For each movie display its title, minimum, maximum and average rental time, as well as number of times it was rented. Order the results from most popular movie to least one.

Expected result:

| title | min | max | avg | count |
|----------------------------------|--------|--------|-----------------|-------|
| Taxi Driver | 1 day | 1 day | 1 day | 3 |
| Ghostbusters | 1 day | 1 day | 1 day | 2 |
| Mission Impossible | 1 day | 1 day | 1 day | 2 |
| Terminator | 1 day | 3 days | 2 days | 2 |
| Star Wars Episode IV: A New Hope | 1 day | 1 day | 1 day | 2 |
| Ronin | 3 days | 4 days | 3 days 12:00:00 | 2 |
| Frantic | 3 days | 3 days | 3 days | 1 |

Task 12: For every client display its first, last name and number of rentals. Order the results by last names

Expected result:

| first_name | last_name | count |
|------------|-----------|-------|
| Bob | Belcher | 1 |
| Gary | Goodspeed | 4 |
| Brian | Griffin | 3 |
| Hank | Hill | 2 |
| Rick | Sanchez | 3 |
| Lisa | Simpson | 1 |

Task 13: For every actor display the number of movies in which he/she played. Skip actors, that played in only one movie

Expected result:

| last_name | count |
|-----------|-------|
| De Niro | 3 |
| Reno | 3 |
| Ford | 2 |

Task 14: For every client display the total amount of money he or she spent on renting movies

Expected result:

| last_name | sum |
|-----------|------|
| Belcher | 9,5 |
| Simpson | 8,5 |
| Hill | 18,5 |
| Sanchez | 23,5 |
| Goodspeed | 28,5 |
| Griffin | 19 |