SQL Exercises, Practice, Solution - Retrieve data from tables

SQL [33 exercises with solution]

1. Write a SQL statement that displays all the information about all salespeople.

Sample table: salesman

A. SELECT * from salesman;

2. Write a SQL statement to display a string "This is SQL Exercise, Practice and Solution".

A. SELECT 'This is SQL Exercise, Practice and Solution';

3. Write a SQL query to display three numbers in three columns.

SELECT 5, 10, 15;

4. Write a SQL query to display the sum of two numbers 10 and 15 from the RDBMS server

SELECT 10+15;

5. Write an SQL query to display the result of an arithmetic expression.

SELECT 10-5/2;

6. Write a SQL statement to display specific columns such as names and commissions for all salespeople.

SELECT name,commission

from salesman; SELECT name,commission

from salesman;

7. Write a query to display the columns in a specific order, such as order date, salesman ID, order number, and purchase amount for all orders
Sample table: orders

```
ord_no      purch_amt   ord_date    customer_id  salesman_id
```

SELECT ord_date, salesman_id, ord_no, purch_amt

FROM orders;

8. From the following table, write a SQL query to identify the unique salespeople ID. Return salesman_id.

Sample table: orders

SELECT DISTINCT salesman_id

FROM orders;

9. From the following table, write a SQL query to locate salespeople who live in the city of 'Paris'. Return salesperson's name, city.

Sample table: salesman

SELECT name, city

FROM salesman

where city='Paris';

10. From the following table, write a SQL query to find customers whose grade is 200. Return customer_id, cust_name, city, grade, salesman_id.

Sample table: customer

SELECT customer_id, cust_name, city, grade, salesman_id

FROM customer

where grade='200';

11. From the following table, write a SQL query to find orders that are delivered by a salesperson with ID. 5001. Return ord_no, ord_date, purch_amt

Sample table: orders

SELECT ord_no, ord_date, purch_amt

FROM orders

where salesman_id='5001';

12. From the following table, write a SQL query to find the Nobel Prize winner(s) for the year 1970. Return year, subject and winner

Sample table: nobel_win

SELECT year, subject, winner

FROM nobel_win

where year='1970';

13. From the following table, write a SQL query to find the Nobel Prize winner in ‘Literature’ for 1971. Return winner

Sample table: nobel_win

SELECT winner

FROM nobel_win

where subject='Literature' and year='1971';

14. From the following table, write a SQL query to locate the Nobel Prize winner ‘Dennis Gabor'. Return year, subject.

Sample table: nobel_win

```
SELECT year, subject

FROM nobel_win

where winner='Dennis Gabor';
```

15. From the following table, write a SQL query to find the Nobel Prize winners in the field of ‘Physics’ since 1950. Return winner.

Sample table: nobel_win

```
SELECT winner

FROM nobel_win

where year >='1950' and subject='Physics';
```

16. From the following table, write a SQL query to find the Nobel Prize winners in ‘Chemistry’ between the years 1965 and 1975. Begin and end values are included. Return year, subject, winner, and country

Sample table: nobel_win

```
SELECT year, subject, winner, country

FROM nobel_win

where year>='1965' and year<='1975' and subject='Chemistry';
```

17. Write a SQL query to display all details of the Prime Ministerial winners after 1972 of Menachem Begin and Yitzhak Rabin.

Sample table: nobel_win

```
SELECT * FROM nobel_win WHERE year >1972 AND winner IN ('Menachem Begin','Yitzhak Rabin');
```

18. From the following table, write a SQL query to retrieve the details of the winners whose first names match with the string ‘Louis’. Return year, subject, winner, country, and category

Sample table: nobel_win

SELECT *

FROM nobel_win

where winner like 'Louis%';

19. From the following table, write a SQL query that combines the winners in Physics, 1970 and in Economics, 1971. Return year, subject, winner, country, and category

Sample table: nobel_win

SELECT * FROM nobel_win WHERE (subject ='Physics' AND year=1970) UNION (SELECT * FROM nobel_win WHERE (subject ='Economics' AND year=1971));

20. From the following table, write a SQL query to find the Nobel Prize winners in 1970 excluding the subjects of Physiology and Economics. Return year, subject, winner, country, and category.

Sample table: nobel_win

SELECT *

FROM nobel_win

where subject NOT IN('Physiology','Economics') and year='1970';

21. From the following table, write a SQL query to combine the winners in 'Physiology' before 1971 and winners in 'Peace' on or after 1974. Return year, subject, winner, country, and category.

Sample table: nobel_win

SELECT * FROM nobel_win WHERE (subject ='Physiology' AND year<1971) UNION (SELECT * FROM nobel_win WHERE (subject ='Peace' AND year>=1974));

22. From the following table, write a SQL query to find the details of the Nobel Prize winner 'Johannes Georg Bednorz'. Return year, subject, winner, country, and category.

Sample table: nobel_win

SELECT *

FROM nobel_win

where winner='Johannes Georg Bednorz';

23. From the following table, write a SQL query to find Nobel Prize winners for the subject that does not begin with the letter 'P'. Return year, subject, winner, country, and category. Order the result by year, descending and winner in ascending.

Sample table: nobel_win

SELECT *

FROM nobel_win

where subject NOT LIKE 'P%'

ORDER BY winner, year DESC;

24. From the following table, write a SQL query to find the details of 1970 Nobel Prize winners. Order the results by subject, ascending except for 'Chemistry' and ‘Economics’ which will come at the end of the result set. Return year, subject, winner, country, and category.

```
SELECT *
FROM nobel_win
WHERE year=1970
ORDER BY
 CASE
    WHEN subject IN ('Economics','Chemistry') THEN 1
    ELSE 0
```

```
END ASC,
subject,
winner;
```

25. From the following table, write a SQL query to select a range of products whose price is in the range Rs.200 to Rs.600. Begin and end values are included. Return pro_id, pro_name, pro_price, and pro_com.

Sample table: item_mast

SELECT pro_id, pro_name, pro_price,pro_com

FROM item_mast

where pro_price BETWEEN 200 and 600;

26. From the following table, write a SQL query to calculate the average price for a manufacturer code of 16. Return avg

Sample table: item_mast

SELECT AVG(pro_price)

FROM item_mast

WHERE pro_com=16;

27. From the following table, write a SQL query to display the pro_name as 'Item Name' and pro_priceas 'Price in Rs.'

SELECT pro_name AS "Item Name" ,pro_price AS "Price in Rs"

FROM item_mast;

28. From the following table, write a SQL query to find the items whose prices are higher than or equal to $250. Order the result by product price in descending, then product name in ascending. Return pro_name and pro_price.

Sample table: item_mast

SELECT pro_name, pro_price

FROM item_mast

where pro_price>='250'

order by pro_price DESC,pro_name;

29. From the following table, write a SQL query to calculate average price of the items for each company. Return average price and company code.

Sample table: item_mast

```
SELECT AVG(pro_price), pro_com
    FROM item_mast
GROUP BY pro_com;
```

30. From the following table, write a SQL query to find the cheapest item(s). Return pro_name and, pro_price

Sample table: item_mast

```
SELECT pro_name, pro_price
   FROM item_mast
   WHERE pro_price =
    (SELECT MIN(pro_price) FROM item_mast);
```

31. From the following table, write a SQL query to find the unique last name of all employees. Return emp_lname.

Sample table: emp_details

SELECT DISTINCT emp_lname

FROM emp_details;

32. From the following table, write a SQL query to find the details of employees whose last name is 'Snares'. Return emp_idno, emp_fname, emp_lname, and emp_dept.

Sample table: emp_details

```
SELECT *

FROM emp_details

where emp_lname='Snares';
```

33. From the following table, write a SQL query to retrieve the details of the employees who work in the department 57. Return emp_idno, emp_fname, emp_lname and emp_dept..

Sample table: emp_details

```
SELECT *

FROM emp_details

where emp_dept='57';
```