11. Create Student Table with ID as Primary Key and NOT NULL , Name as 20 Characters ,Age as Int value both are NOT NULL and Address have 25 charter And Insert Any 5 Records?

**ANS**:

CREATE TABLE Student (

ID INT PRIMARY KEY NOT NULL,

Name VARCHAR(20) NOT NULL,

Age INT NOT NULL,

Address VARCHAR(25)

);

INSERT INTO Student (ID, Name, Age, Address)

VALUES

(1, 'Alice', 22, '123 Main St'),

(2, 'Bob', 20, '456 Elm St'),

(3, 'Charlie', 21, '789 Oak St'),

(4, 'David', 23, '555 Pine St'),

(5, 'Eve', 24, '777 Maple Ave');

12. Write an SQL query to find the youngest student in the "student" table ?

**ANS:**

SELECT \*

FROM student

ORDER BY Age

LIMIT 1;

13. Write an SQL query to retrieve the names and addresses of all persons from the "Person" table along with their corresponding addresses from the "Address" table.

**ANS:**

SELECT p.name, a.address

FROM Person p

JOIN Address a ON p.person\_id = a.person\_id;

14. Write an SQL query to fetch the second highest number from the "student" table.?

**ANS:**

SELECT DISTINCT Age

FROM student

ORDER BY Age DESC

LIMIT 1 OFFSET 1;

15. Write SQL Query to get the nth highest salary from Employee table?

**ANS:**

SELECT DISTINCT salary

FROM Employee

ORDER BY salary DESC

LIMIT 1 OFFSET (n - 1);

16. Write a SQL query to find the median salary of each company.?

**ANS:**

SELECT company\_id,

AVG(salary) AS median\_salary

FROM (

SELECT company\_id,

salary,

ROW\_NUMBER() OVER (PARTITION BY company\_id ORDER BY salary) AS rn,

COUNT(\*) OVER (PARTITION BY company\_id) AS cnt

FROM Employee

) ranked

WHERE rn = (cnt + 1) / 2 OR rn = cnt / 2 + 1

GROUP BY company\_id;

17. Write a SQL to get the cumulative sum of an employee’s salary over a period of 3 month but exclude the most recent month? The result should be display by id ascending and then by month decending ?

**ANS:**

SELECT id, month, SUM(salary) OVER (PARTITION BY id ORDER BY month ROWS BETWEEN 2 PRECEDING AND 1 PRECEDING) AS cumulative\_sum

FROM your\_table

ORDER BY id ASC, month DESC;

19. Consider a database with two tables: "Orders" and "Customers." Write an SQL query to retrieve the top 5 customers who have made the most orders, along with the total count of their orders. Display the results in descending order of the order count and ascending order of customer names.

**ANS:**

SELECT c.customer\_name, COUNT(o.order\_id) AS order\_count

FROM Customers c

JOIN Orders o ON c.customer\_id = o.customer\_id

GROUP BY c.customer\_id, c.customer\_name

ORDER BY order\_count DESC, customer\_name ASC

LIMIT 5;

20. Consider a database schema that represents an online bookstore with two tables: books and orders. The books table has columns: book\_id, title, author, price, and stock\_quantity. The orders table has columns: order\_id, book\_id, quantity, and order\_date.Write an SQL query to find the top 3 bestselling products in terms of total quantity sold, along with their names and total quantities sold.

**ANS:**

SELECT b.title, SUM(o.quantity) AS total\_quantity\_sold

FROM books b

JOIN orders o ON b.book\_id = o.book\_id

GROUP BY b.book\_id, b.title

ORDER BY total\_quantity\_sold DESC

LIMIT 3;