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;
```