

```

CREATE TABLE Product (
product_id INT PRIMARY KEY,
product_name VARCHAR(100),
category VARCHAR(50),
price DECIMAL(10, 2),
quantity SMALLINT,
rating FLOAT,
is_available BOOLEAN
);
INSERT INTO Product (product_id, product_name, category, price,
quantity, rating, is_available) VALUES
(1, 'Laptop', 'Electronics', 799.99, 15, 4.5, TRUE),
(2, 'Smartphone', 'Electronics', 599.50, 30, 4.3, TRUE),
(3, 'Bluetooth Speaker', 'Electronics', 49.99, 45, 4.0, TRUE),
(4, 'Desk Chair', 'Furniture', 120.00, 20, 3.9, TRUE),
(5, 'Office Desk', 'Furniture', 299.99, 10, 4.2, TRUE),
(6, 'Monitor', 'Electronics', 199.99, 25, 4.1, TRUE),
(7, 'Gaming Mouse', 'Accessories', 39.99, 50, 4.6, TRUE),
(8, 'Keyboard', 'Accessories', 49.99, 40, 4.4, TRUE),
(9, 'Webcam', 'Accessories', 89.99, 15, 4.0, TRUE),
(10, 'Wireless Router', 'Electronics', 129.99, 18, 3.8, TRUE));

```

```

=====
SQL Queries on Product Table
=====

```

1. Select all 'Electronics' products with rating > 4.0 and quantity > 10

```

SELECT *
FROM Product
WHERE category = 'Electronics'
      AND rating > 4.0
      AND quantity > 10;

```

2. Select top 10 most expensive products

```

SELECT *

```

```
FROM Product
ORDER BY price DESC
LIMIT 10;
```

3. Select all products where product_name starts with 'S'

```
SELECT *
FROM Product
WHERE product_name LIKE 'S%';
```

4. Select products in categories IN ('Stationery', 'Accessories')

```
SELECT *
FROM Product
WHERE category IN ('Stationery', 'Accessories');
```

5. Select products where price BETWEEN 10 AND 50

```
SELECT *
FROM Product
WHERE price BETWEEN 10 AND 50;
```

6. List product_name, category, and price of top 5 rated products

```
SELECT product_name, category, price
FROM Product
ORDER BY rating DESC
LIMIT 5;
```

7. Select all products ordered by category ASC, price DESC

```
SELECT *
FROM Product
ORDER BY category ASC, price DESC;
```

8. Show all unavailable products

```
SELECT *  
FROM Product  
WHERE is_available = FALSE;
```

9. Select all products where rating IN (3.9, 4.0, 4.1)

```
SELECT *  
FROM Product  
WHERE rating IN (3.9, 4.0, 4.1);
```

10. List 5 cheapest products in 'Accessories'

```
SELECT *  
FROM Product  
WHERE category = 'Accessories'  
ORDER BY price ASC  
LIMIT 5;
```

11. Select products where price > 100 AND rating BETWEEN 4.0 AND 4.5, LIMIT 3

```
SELECT *  
FROM Product  
WHERE price > 100  
      AND rating BETWEEN 4.0 AND 4.5  
LIMIT 3;
```

12. Select all products with name containing 'Desk'

```
SELECT *  
FROM Product  
WHERE product_name LIKE '%Desk%';
```

13. Show distinct product categories in the table

```
SELECT DISTINCT category  
FROM Product;
```

14. Count how many products are in stock (quantity > 0 and

```
is_available = TRUE)
```

```
SELECT COUNT(*) AS in_stock_count
FROM Product
WHERE quantity > 0
    AND is_available = TRUE;
```

```
=====
SQL UPDATE Queries for Product Table
=====
```

1. Increase prices by 10% for all 'Electronics' products

```
UPDATE Product
SET price = price * 1.10
WHERE category = 'Electronics';
```

2. Set is_available = FALSE for products with quantity = 0

```
UPDATE Product
SET is_available = FALSE
WHERE quantity = 0;
```

3. Set rating = 4.9 for the product 'Gaming Mouse'

```
UPDATE Product
SET rating = 4.9
WHERE product_name = 'Gaming Mouse';
```

4. Change category to 'Office Accessories' for all 'Desk Mat' items

```
UPDATE Product
SET category = 'Office Accessories'
WHERE product_name = 'Desk Mat';
```

5. Increase quantity by 10 for all 'Stationery' products

```
UPDATE Product
SET quantity = quantity + 10
WHERE category = 'Stationery';
```

6. Reduce price by 10 for all products with rating BETWEEN 3.5 AND 4.0

```
UPDATE Product
SET price = price - 10
WHERE rating BETWEEN 3.5 AND 4.0;
```

7. Mark 5 lowest rated products as unavailable (is_available = FALSE)

```
UPDATE Product
SET is_available = FALSE
ORDER BY rating ASC
LIMIT 5;
```

8. Update rating = 4.8 for 'Electronics' and 'Accessories' products with rating < 4.0

```
UPDATE Product
SET rating = 4.8
WHERE category IN ('Electronics', 'Accessories')
    AND rating < 4.0;
```

9. Increase quantity by 5 for the cheapest available 'Furniture' product

```
UPDATE Product
SET quantity = quantity + 5
WHERE product_id = (
    SELECT product_id
    FROM Product
    WHERE category = 'Furniture'
        AND is_available = TRUE
    ORDER BY price ASC
    LIMIT 1)
```

);

10. Change product_name to 'Wireless Mouse' for product_id = 7

```
UPDATE Product
SET product_name = 'Wireless Mouse'
WHERE product_id = 7;
```

11. Increase price by 2 for 'Accessories' products where price < 20 AND rating > 4.4

```
UPDATE Product
SET price = price + 2
WHERE category = 'Accessories'
    AND price < 20
    AND rating > 4.4;
```

12. Set is_available = FALSE for products with product_id IN (3, 7, 9, 15)

```
UPDATE Product
SET is_available = FALSE
WHERE product_id IN (3, 7, 9, 15);
```

```
=====
SQL DELETE Queries for Product Table
=====
```

1. Remove all products that are out of stock

```
DELETE FROM Product
WHERE quantity = 0;
```

2. Delete 2 lowest rated products

```
DELETE FROM Product
ORDER BY rating ASC
LIMIT 2;
```

3. Remove all stationery products that cost less than \$1

```
DELETE FROM Product
WHERE category = 'Stationery'
      AND price < 1.0;
```

4. Delete products with rating < 3.0

```
DELETE FROM Product
WHERE rating < 3.0;
```

5. Remove accessory products that have low stock (less than 10 units)

```
DELETE FROM Product
WHERE category = 'Accessories'
      AND quantity < 10;
```

6. Delete the specific product named "VR Headset"

```
DELETE FROM Product
WHERE product_name = 'VR Headset';
```

7. Remove products with IDs 1, 5, and 10

```
DELETE FROM Product
WHERE product_id IN (1, 5, 10);
```

8. Delete the top 3 cheapest products

```
DELETE FROM Product
ORDER BY price ASC
LIMIT 3;
```

9. Delete up to 4 products with mediocre ratings (between 3.0 and 3.5)

```
DELETE FROM Product
WHERE rating BETWEEN 3.0 AND 3.5
```

LIMIT 4;

10. Remove furniture items that are poorly rated (rating less than 4.0)

```
DELETE FROM Product
WHERE category = 'Furniture'
      AND rating < 4.0;
```

11. Delete 1 product in 'Electronics' with the lowest quantity

```
DELETE FROM Product
WHERE product_id = (
    SELECT product_id
    FROM Product
    WHERE category = 'Electronics'
    ORDER BY quantity ASC
    LIMIT 1
);
```

12. Remove high-priced items that have very low stock (price > 500 AND quantity < 5)

```
DELETE FROM Product
WHERE price > 500
      AND quantity < 5;
```

13. Delete 5 products with the highest ratings first but lowest prices within the same rating tier

```
DELETE FROM Product
ORDER BY rating DESC, price ASC
LIMIT 5;
```