

Queries





1. The query for finding the 3 most popular product based on average rating:

```
SELECT
    p.pid,
    p.pname,
    AVG(r.value) AS average_rating
FROM
    Product p
JOIN
    Rating r ON p.pid = r.pid
GROUP BY
    p.pid, p.pname
ORDER BY
    average_rating DESC
FETCH FIRST 3 ROWS ONLY;
```

| | pid [PK] character varying (5) | pname character varying (100) | average_rating numeric |
|---|-----------------------------------|----------------------------------|---------------------------|
| 1 | P001 | Laptop | 4.666666666666667 |
| 2 | P002 | Shirt | 4.333333333333333 |
| 3 | P003 | Book | 4.000000000000000 |




2. Query to Calculate the TOTAL Discounted Price for All Products in the Cart:

```
SELECT
    c.cart_id,
    SUM(p.selling_price * (1 - p.discount / 100) * c.quantity) AS discounted_total_price,
    CASE
        WHEN l.points_used IS NULL THEN 0
        WHEN o.date <= l.exp_date THEN LEAST(l.points_used * 0.01, SUM(p.selling_price * (1 - p.discount / 100) * c.quantity))
        ELSE 0
    END AS loyalty_discount,
    SUM(p.selling_price * (1 - p.discount / 100) * c.quantity) -
    CASE
        WHEN l.points_used IS NULL THEN 0
        WHEN o.date <= l.exp_date THEN LEAST(l.points_used * 0.01, SUM(p.selling_price * (1 - p.discount / 100) * c.quantity))
        ELSE 0
    END AS final_payable_amount
FROM
    Cart c
JOIN
    OrderTable o ON c.oid = o.oid
JOIN
    Loyalty l ON o.lpid = l.lpid
JOIN
    In_Cart ic ON c.cart_id = ic.cart_id
JOIN
    Product p ON ic.pid = p.pid
GROUP BY
    c.cart_id, l.points_used, o.date, l.exp_date;
```

| | cart_id [PK] character varying (5)  | discounted_total_price numeric  | loyalty_discount numeric  | final_payable_amount numeric  |
|---|---|---|---|---|
| 1 | C005 | 1800.0000000000000000000000000000 | 0.90 | 1799.1000000000000000000000000000 |
| 2 | C001 | 57.000000000000000000000000000000 | 0.20 | 56.800000000000000000000000000000 |
| 3 | C003 | 138.000000000000000000000000000000 | 0.30 | 137.700000000000000000000000000000 |
| 4 | C002 | 14.700000000000000000000000000000 | 0.50 | 14.200000000000000000000000000000 |
| 5 | C004 | 39.600000000000000000000000000000 | 0.70 | 38.900000000000000000000000000000 |

3. Query to find the 3 most requested products according to wishlist

```
SELECT pname, pid, COUNT(pid) AS requested
FROM wishlist_has natural join product
GROUP BY pid
ORDER BY requested DESC
LIMIT 3;
```

| | pid [PK] character varying (5)  | pname character varying (100)  | times_requested bigint  |
|---|--|---|--|
| 1 | P005 | Toy Car | 1 |
| 2 | P001 | Laptop | 1 |
| 3 | P002 | Shirt | 1 |