1. Query to return Ids of the product info that have 0 likes

**Solution:**

This SQL code involves creating two tables (product\_info and product\_info\_likes), inserting data into them, and then executing a query.

**Table Creation:**

product\_info: It has columns product\_id (integer) and product\_name (varchar of maximum 20 characters).

product\_info\_likes: It has columns user\_id (integer), product\_id (integer), and liked\_date (date).

**create table product\_info (product\_id int, product\_name varchar(20));**

**create table product\_info\_likes (user\_id int, product\_id int, liked\_date DATE);**

**Data Insertion:**

Inserts data into the product\_info table with product information.

Inserts data into the product\_info\_likes table with user likes for specific products.

**INSERT INTO product\_info (product\_id, product\_name)**

**VALUES (1001, 'Blog'),**

**(1002, 'Youtube'),**

**(1003, 'Education');**

**INSERT INTO product\_info\_likes (user\_id, product\_id, liked\_date)**

**VALUES (1, 1001, '2023-08-19'),**

**(2, 1003, '2023-08-18');**

**Select Query:**

The query retrieves product\_id from the product\_info table for products that have not been liked by any user (i.e., products that do not have an entry in the product\_info\_likes table).

**SELECT product\_id**

**FROM product\_info**

**WHERE product\_id NOT IN (SELECT product\_id FROM product\_info\_likes);**

**Explanation:**

The subquery (SELECT product\_id FROM product\_info\_likes) retrieves the list of product\_ids that have been liked.

The outer query selects product\_ids from the product\_info table where the product\_id is not in the list of liked product\_ids.

This query will return the product\_id(s) of the product(s) that have not been liked by any user. In the given example, it would return the product\_id 1002 ('Youtube') since it has not been liked by any user according to the data provided.