

Title:

Product Performance Analysis in Big Basket Using MySQL Analytical Functions

Problem Statement:

Big Basket is an online grocery store that offers a wide variety of products. The company seeks to understand the sales trends, product performance, and customer preferences. They require insights to rank products, identify top-performing categories, analyze price differences, and create dynamic reports using advanced SQL queries and functionalities such as ranking, subqueries, views, and stored procedures.

Objective:

To analyze product sales performance and customer preferences using MySQL's advanced SQL functionalities, including ranking, lead and lag analysis, subqueries, views, stored procedures, and common table expressions (CTE).

Dataset Overview:

The dataset contains product details for various items sold by Big Basket. The key columns include:

- id: Unique identifier for each product.
- product: Name of the product.
- category: Category of the product.
- sub_category: Subcategory the product belongs to.
- brand: Brand of the product.
- sale_price: Sale price of the product.
- market_price: Original market price of the product.
- type: Type of product.
- rating: Customer rating for the product.

Task:

1. Rank products based on their sale price within each category.
2. Find the next product's sale price for comparison within the same category.
3. Create a CTE to get the top 5 highest-rated products for each category.
4. Create a view to simplify querying for product information in the 'Beauty & Hygiene' category.
5. Write a stored procedure to update the sale price of a product by its id.
6. Create a CTE to show the total sales price per category and rank them.
7. Create a view to store the sale price and market price difference for each product.
8. Create a stored procedure to return products from a specific category and sub category.
9. Use CASE to assign discounts based on the market price of the products(>500 as high discount, from 200 to 500 as medium discount or else low discount).