DBMS Lab – P BATCH

LAB QUESTION 1   Date : 17 03 2025

The OE schema includes these tables:

- CUSTOMERS
- INVENTORIES
- ORDERS ■ ORDER_ITEMS
- PRODUCT_DESCRIPTIONS
- PRODUCT_INFORMATION
- WAREHOUSES

A CUSTOMER can place many ORDERS, and an order can have many ORDER_ITEMS. Each item will be of one product, described by its PRODUCT_INFORMATION, and each product may have several PRODUCT_DESCRIPTIONS, in different languages. There are a number of WAREHOUSES, each of which can store many products; one product may be stored in many warehouses. An INVENTORIES entry relates products to warehouses, showing how much of each product is in each warehouse. Sketch out this schema as an entity-relationship diagram, showing the many-to-one connections between the tables and ensuring that there are no many-to-many connections.

1. Obtain structural information for the PRODUCT_INFORMATION and ORDERS tables

2. Select the unique SALES_REP_ID values from the ORDERS table. How many different sales representatives have been assigned to orders in the ORDERS table?

3. Create a results set based on the ORDERS table that includes the ORDER_ID, ORDER_ DATE, and ORDER_TOTAL columns. Notice how the ORDER_DATE output is formatted differently from the START_DATE and END_DATE columns in the HR.JOB_ID table.

4. The PRODUCT_INFORMATION table stores data regarding the products available for sale in a fictitious IT hardware store. Produce a set of results that will be useful for a sales person. Extract product information in the format with code: has status of: . Alias the expression as "Product." The results should provide the LIST_PRICE, the MIN_PRICE, the difference between LIST_PRICE, and MIN_PRICE aliased as "Max Actual Savings," along with an additional expression that takes the difference between LIST_PRICE and MIN_PRICE and divides it by the LIST_ PRICE and then multiplies the total by 100. This last expression should be aliased as "Max Discount %."

5. Calculate the surface area of the Earth using the DUAL table. Alias this expression as "Earth's Area." The formula for calculating the area of a sphere is: $4\pi r^2$. Assume, for this example, that the earth is a simple sphere with a radius of 3,958.759 miles and that π is 22/7.