**📌 SQL Project Report: Bakery Sales Analysis**

**1️⃣ Introduction**

* **Project Name:** Bakery Sales Analysis
* **Objective:** To analyze sales data, identify top-selling products, high-spending customers, and overall revenue trends using SQL queries.
* **Database Used:** Bakery Management Database

**2️⃣ Database Schema**

Your database contains the following key tables:

* **Customers**: Stores customer details.
* **Products**: Stores bakery items like bread, cakes, and pastries.
* **Orders**: Contains sales transactions.
* **Order\_Details**: Stores details of each product sold in an order.

**3️⃣ SQL Queries & Analysis**

**📍 Query 1: Find the Best-Selling Product**

SELECT Products.name, SUM(Order\_Details.quantity) AS Total\_Sold

FROM Order\_Details

JOIN Products ON Order\_Details.productID = Products.productID

GROUP BY Products.name

ORDER BY Total\_Sold DESC

LIMIT 1;

**🔹 Insight:** The most popular product in the bakery.

**📍 Query 2: Find the Highest Spending Customer**

SELECT Customers.name, SUM(Orders.totalAmount) AS Total\_Spent

FROM Orders

JOIN Customers ON Orders.customerID = Customers.customerID

GROUP BY Customers.name

ORDER BY Total\_Spent DESC

LIMIT 1;

**🔹 Insight:** Identifies the most valuable customer.

**📍 Query 3: Get Total Sales for Each Category**

SELECT Products.category, SUM(Order\_Details.price \* Order\_Details.quantity) AS Total\_Sales

FROM Order\_Details

JOIN Products ON Order\_Details.productID = Products.productID

GROUP BY Products.category;

**🔹 Insight:** Shows which category (cakes, bread, pastries) contributes most to revenue.

**📍 Query 4: Find the Least Sold Product**

SELECT Products.name, SUM(Order\_Details.quantity) AS Total\_Sold

FROM Order\_Details

JOIN Products ON Order\_Details.productID = Products.productID

GROUP BY Products.name

ORDER BY Total\_Sold ASC

LIMIT 1;

**🔹 Insight:** Helps decide whether to promote or discontinue a product.

**📍 Query 5: Get Total Revenue of the Bakery**

SELECT SUM(totalAmount) AS Total\_Revenue FROM Orders;

**🔹 Insight:** Calculates total sales revenue for the bakery.

**4️⃣ Conclusion**

* The **best-selling product** helps in maintaining high stock levels.
* Understanding **customer spending** enables personalized offers.
* **Category-wise sales analysis** guides product pricing and marketing.
* Identifying **least sold products** helps in inventory decisions.
* Tracking **total revenue** allows financial planning and growth strategies.