MySQL Sales Performance Analysis Project

Created by: Yash – Data Analyst

Project Objective

The objective of this project is to analyze sales data using MySQL and generate business insights such as revenue trends, top-selling products, customer behavior, profit analysis, and regional performance.

Database Schema

```
CREATE TABLE customers (
    customer_id INT PRIMARY KEY,
    customer_name VARCHAR(100),
    city VARCHAR(50),
    state VARCHAR(50),
    segment VARCHAR(30)
);

CREATE TABLE products (
    product_id INT PRIMARY KEY,
    product_name VARCHAR(100),
    category VARCHAR(50),
    sub_category VARCHAR(50),
    cost_price DECIMAL(10,2)
);

CREATE TABLE orders (
    order_id INT PRIMARY KEY,
    order_date DATE,
    customer_id INT,
    product_id INT,
    quantity INT,
    selling_price DECIMAL(10,2),
    discount DECIMAL(5,2),
    FOREIGN KEY (customer_id) REFERENCES customers(customer_id),
    FOREIGN KEY (product_id) REFERENCES products(product_id)
);
```

Sample Data Insertion

```
INSERT INTO customers VALUES
(1,'Rahul Sharma','Delhi','Delhi','Consumer'),
(2,'Anita Verma','Mumbai','Maharashtra','Corporate'),
(3,'Amit Singh','Pune','Maharashtra','Consumer');

INSERT INTO products VALUES
(101,'Laptop','Electronics','Computers',45000),
(102,'Mobile','Electronics','Phones',15000),
(103,'Office Chair','Furniture','Chairs',3000);

INSERT INTO orders VALUES
(1001,'2024-01-15',1,101,1,55000,10),
(1002,'2024-02-10',2,102,2,18000,5),
(1003,'2024-03-05',3,103,3,4500,0);
```

Sales Analysis SQL Queries

```
-- Total Revenue
SELECT SUM(quantity * selling_price * (1 - discount/100)) AS total_revenue
FROM orders;

-- Monthly Sales Trend
SELECT MONTH(order_date) AS month,
       SUM(quantity * selling_price) AS monthly_sales
FROM orders
GROUP BY MONTH(order_date)
ORDER BY month;

-- Top Selling Products
SELECT p.product_name,
       SUM(o.quantity) AS total_quantity
FROM orders o
JOIN products p ON o.product_id = p.product_id
GROUP BY p.product_name
ORDER BY total_quantity DESC;

-- Customer-wise Sales
SELECT c.customer_name,
       SUM(o.quantity * o.selling_price) AS total_spent
FROM orders o
JOIN customers c ON o.customer_id = c.customer_id
GROUP BY c.customer_name;

-- Profit Analysis
SELECT p.product_name,
       SUM((o.selling_price - p.cost_price) * o.quantity) AS profit
FROM orders o
JOIN products p ON o.product_id = p.product_id
GROUP BY p.product_name;
```

Project Conclusion

This MySQL sales project demonstrates practical database design and data analysis skills. It highlights the ability to transform raw sales data into meaningful business insights using SQL queries.