5) Create an Employee Table with Various Columns a) Create a table Employee with attributes: EmployeeID (INT, PRIMARY KEY), Name (VARCHAR), Salary (DECIMAL), JoiningDate (DATE), and ActiveStatus (BOOLEAN). b) Insert five sample employee records and ensure each employee has a unique EmployeeID. c) Write a query to find all employees who joined before January 1, 2023. d) Update the salary of an employee named ‘Amit Sharma’ by 10% and display the updated record. e) Retrieve all employees who are currently active (ActiveStatus = TRUE).

Which recent tool or technology have you studied for database management, and can you briefly explain its key features and why it is used in the industry?

CREATE TABLE Employee (

EmployeeID INT PRIMARY KEY,

Name VARCHAR(100),

Salary DECIMAL(10, 2),

JoiningDate DATE,

ActiveStatus BOOLEAN

);

INSERT INTO Employee (EmployeeID, Name, Salary, JoiningDate, ActiveStatus) VALUES

(1, 'Amit Sharma', 60000.00, '2022-06-15', TRUE),

(2, 'Sneha Verma', 55000.00, '2023-03-10', TRUE),

(3, 'Rohan Gupta', 70000.00, '2021-11-20', FALSE),

(4, 'Priya Singh', 65000.00, '2022-12-05', TRUE),

(5, 'Kunal Joshi', 72000.00, '2024-01-18', TRUE);

SELECT \* FROM Employee

WHERE JoiningDate < '2023-01-01';

UPDATE Employee

SET Salary = Salary \* 1.10

WHERE Name = 'Amit Sharma';

SELECT \* FROM Employee

WHERE Name = 'Amit Sharma';

SELECT \* FROM Employee

WHERE ActiveStatus = TRUE;

**📚 Recently Studied Database Management Tool: Google BigQuery**

✅ **Key Features:**

* **Fully Managed Serverless Architecture:** No server setup, automatic scaling.
* **Blazing Fast SQL Queries:** Designed for extremely large datasets (terabytes to petabytes).
* **Seamless Integration:** Works well with Google Cloud products, AI/ML tools.
* **Real-Time Analytics:** Supports live data ingestion and instant query analysis.
* **Built-in Machine Learning (BigQuery ML):** You can build and train ML models using simple SQL queries.
* **High Security and Compliance:** Supports encryption, IAM roles, and access auditing.

✅ **Why it’s used in Industry:**

* Perfect for companies handling **massive amounts of data** (e.g., e-commerce, financial analytics).
* Enables **real-time insights** without huge infrastructure management.
* Great for **cost-effective data warehousing** — pay only for the queries you run.