SPPU DBMS LAB Solutions

Chit No: 1

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-- Chit No: 1

-- SQL DDL statements for Employee and Branch schema


-- Create Branch Master Table

CREATE TABLE branch_master (

    branch_id INT PRIMARY KEY,

    branch_name VARCHAR(50)

);


-- Create Employee Master Table

CREATE TABLE employee_master (

    emp_id INT PRIMARY KEY,

    first_name VARCHAR(50),

    middle_name VARCHAR(50),

    last_name VARCHAR(50),

    department VARCHAR(50),

    manager_id INT

);


-- 1. Insert records in branch_master

INSERT INTO branch_master (branch_id, branch_name) VALUES (1, 'HR');

INSERT INTO branch_master (branch_id, branch_name) VALUES (2, 'Finance');


-- 2. Insert records in employee_master

INSERT INTO employee_master (emp_id, first_name, middle_name, last_name, department, manager_id) VALUES
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(101, 'John', 'A', 'Doe', 'HR', 201);

INSERT INTO employee_master (emp_id, first_name, middle_name, last_name, department, manager_id) VALUES

(102, 'Jane', 'B', 'Smith', 'Finance', 202);

-- 3. Create index on first_name column of employee_master.

CREATE INDEX idx_emp_name ON employee_master(first_name);

-- 4. Create a view containing employee details

CREATE VIEW employee_details AS

SELECT emp_id, first_name, middle_name, last_name, department, manager_id FROM employee_master;

Chit No: 2

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-- SQL DML for College Database

-- Create Student Table
CREATE TABLE Student (
    stud_id INT PRIMARY KEY,
    deptnm VARCHAR(50),
    sem INT,
    name VARCHAR(50),
    yr INT,
    credits INT
);

-- Create Teaches Table
CREATE TABLE Teaches (
    teacher_id INT PRIMARY KEY,
    teacher_name VARCHAR(50),
    salary DECIMAL(10,2),
    deptnm VARCHAR(50)
);

-- 1. Insert records into all tables
INSERT INTO Student (stud_id, deptnm, sem, name, yr, credits) VALUES (1, 'Comp', 3, 'Alice', 2, 30);
INSERT INTO Teaches (teacher_id, teacher_name, salary, deptnm) VALUES (101, 'Dr. Smith', 4000, 'Comp');
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-- 2. Update record on student table

UPDATE Student SET deptnm = 'IT' WHERE deptnm = 'Comp';



-- 3. Find department with highest or average salary

SELECT deptnm, MAX(salary) AS highest_salary FROM Teaches GROUP BY deptnm;



-- 4. Delete teacher records with salary below 2000

DELETE FROM Teaches WHERE salary < 2000;



-- 5. Find sum of salary of each department

SELECT deptnm, SUM(salary) AS total_salary FROM Teaches GROUP BY deptnm;
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