



School of Computer Science, UPES, Dehradun.

A

LABORATORY FILE

On

DATABASE MANAGEMENT
SYSTEM (DBMS) LAB

B.TECH. -III Semester

AUG. – NOV.- 2024.

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EXEPERIMENT – 17**To understand the concepts of Trigger**

Objective: Students will be able to implement the concept of trigger.

CREATE TRIGGER SALARY_VIOLATION BEFORE INSERT OR
UPDATE OF SALARY, SUPERVISOR_SSN ON EMPLOYEE of
experiment 3

-- Create DEPARTMENT table first (no foreign keys yet)

```
CREATE TABLE DEPARTMENT (  
    Dname VARCHAR(15) NOT NULL UNIQUE,  
    Dnumber INT NOT NULL PRIMARY KEY,  
    Mgr_ssn CHAR(9) NOT NULL,  
    Mgr_start_date DATE  
);
```

-- Create EMPLOYEE table next (references DEPARTMENT table)

```
CREATE TABLE EMPLOYEE (  
    Fname VARCHAR(15) NOT NULL,  
    Minit CHAR,  
    Lname VARCHAR(15) NOT NULL,  
    Ssn CHAR(9) NOT NULL PRIMARY KEY,  
    Bdate DATE,  
    Address VARCHAR(30),  
    Sex CHAR,  
    Salary DECIMAL(10, 2),  
    Super_ssn CHAR(9),  
    Dno INT NOT NULL,  
    FOREIGN KEY (Super_ssn) REFERENCES EMPLOYEE(Ssn),  
    FOREIGN KEY (Dno) REFERENCES DEPARTMENT(Dnumber)  
);
```

-- Create DEPT_LOCATIONS table (references DEPARTMENT table)

```
CREATE TABLE DEPT_LOCATIONS (  
    Dnumber INT NOT NULL,
```

```
Dlocation VARCHAR(15) NOT NULL,  
PRIMARY KEY (Dnumber, Dlocation),  
FOREIGN KEY (Dnumber) REFERENCES DEPARTMENT(Dnumber)  
);
```

-- Create PROJECT table (references DEPARTMENT table)

```
CREATE TABLE PROJECT (  
    Pname VARCHAR(15) NOT NULL UNIQUE,  
    Pnumber INT NOT NULL PRIMARY KEY,  
    Plocation VARCHAR(15),  
    Dnum INT NOT NULL,  
    FOREIGN KEY (Dnum) REFERENCES DEPARTMENT(Dnumber)  
);
```

-- Create WORKS_ON table (references EMPLOYEE and PROJECT tables)

```
CREATE TABLE WORKS_ON (  
    Essn CHAR(9) NOT NULL,  
    Pno INT NOT NULL,  
    Hours DECIMAL(3, 1) NOT NULL,  
    PRIMARY KEY (Essn, Pno),  
    FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn),  
    FOREIGN KEY (Pno) REFERENCES PROJECT(Pnumber)  
);
```

-- Create DEPENDENT table (references EMPLOYEE table)

```
CREATE TABLE DEPENDENT (  
    Essn CHAR(9) NOT NULL,  
    Dependent_name VARCHAR(15) NOT NULL,  
    Sex CHAR,  
    Bdate DATE,  
    Relationship VARCHAR(8),  
    PRIMARY KEY (Essn, Dependent_name),  
    FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn)  
);
```