

Create Trigger for Employee Table

1.Create a Database

create database ZESAM;

2.Select the Database

use ZESAM;

3.Create a Table

```
CREATE TABLE EMPLOYEE (  
    SSN          VARCHAR(10) PRIMARY KEY,  
    FNAME        VARCHAR(20),  
    LNAME        VARCHAR(20),  
    SALARY       DECIMAL(10,2),  
    SUPERVISOR_SSN VARCHAR(10),  
    CONSTRAINT fk_supervisor  
        FOREIGN KEY (SUPERVISOR_SSN)  
        REFERENCES EMPLOYEE(SSN)  
);
```

4.Insert Data into Table:

```
INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, SALARY, SUPERVISOR_SSN)  
VALUES ('S100', 'Alice', 'Smith', 60000, NULL);
```

```
INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, SALARY, SUPERVISOR_SSN)  
VALUES ('E101', 'Bob', 'Johnson', 50000, 'S100');
```

```
INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, SALARY, SUPERVISOR_SSN)  
VALUES ('E102', 'Charlie', 'Brown', 55000, 'S100');
```

5.Create Trigger using before update on

DELIMITER \$\$

CREATE TRIGGER salary_violation_update1123

BEFORE UPDATE ON EMPLOYEE

FOR EACH ROW

BEGIN

DECLARE sup_salary DECIMAL(10,2);

DECLARE msg VARCHAR(255);

IF NEW.SUPERVISOR_SSN IS NOT NULL THEN

SELECT SALARY INTO sup_salary

FROM EMPLOYEE

WHERE SSN = NEW.SUPERVISOR_SSN;

IF NEW.SALARY > sup_salary THEN

SET msg = CONCAT('Salary violation: Employee ', NEW.SSN,

' has higher salary than Supervisor ', NEW.SUPERVISOR_SSN);

SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = msg;

END IF;

END IF;

END\$\$

DELIMITER ;

6. Create Trigger using before insert on

DELIMITER \$\$

CREATE TRIGGER salary_violation_insert

```

BEFORE insert ON EMPLOYEE
FOR EACH ROW
BEGIN
    DECLARE sup_salary DECIMAL(10,2);
    DECLARE msg VARCHAR(255);

    IF NEW.SUPERVISOR_SSN IS NOT NULL THEN
        SELECT SALARY INTO sup_salary
        FROM EMPLOYEE
        WHERE SSN = NEW.SUPERVISOR_SSN;

        IF NEW.SALARY > sup_salary THEN
            SET msg = CONCAT('Salary violation: Employee ', NEW.SSN,
                             ' has higher salary than Supervisor ', NEW.SUPERVISOR_SSN);
            SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = msg;
        END IF;
    END IF;
END$$
DELIMITER ;

```

7. Insert the data- salary greater than 60000

```

INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, SALARY, SUPERVISOR_SSN)
VALUES ('E102', 'Charlie', 'Brown', 85000, 'S100');

```

8. Update the data-salary greater than 60000

```

UPDATE EMPLOYEE
SET SALARY = 70000

```

```
WHERE SSN = 'E101';
```