

SQL ASSIGNMENT

TASK:

1. Write a stored procedure to paginate the data that comes out of a query. A query needs to be executed to display data from the Employee table. Use input as page number, number of rows per page.

Stored Procedure:

```
CREATE DEFINER='root'@'localhost' PROCEDURE `paginate`(IN page_no INT, IN records_per_page INT)
BEGIN
DECLARE start_point INT DEFAULT 0;
SET start_point = page_no-1;
SET start_point = start_point*records_per_page;
SELECT * FROM EMPLOYEE LIMIT START_POINT , RECORDS_PER_PAGE;
END
```

Call:

```
CALL paginate(3, 5);
```

	ID	FIRSTNAME	LASTNAME	DEPT_ID
▶	11	ABHI	GYAN	103
	12	DARSHAN	PATIL	104
	13	OMKAR	RAIKAR	101
	14	GAURAV	YADAV	102
	15	AB	GY	103

2. Instead of INSERT, UPDATE, DELETE triggers

a. INSTEAD OF INSERT TRIGGER

```
USE EMPLOYEES;
SELECT * FROM EMPLOYEE;
CREATE TRIGGER id_sum
BEFORE INSERT ON EMPLOYEE FOR EACH ROW
SET @sum = @sum + NEW.ID;
SET @sum = 0;
```

```
INSERT INTO EMPLOYEE VALUES(19,'WB','AM',103), (20, 'JK', 'IJ', 104), (21, 'GH','EF', 101), (22, 'AB','CD',102);
```

```
SELECT @sum AS 'Total sum ID';
```

	Total sum ID
▶	82

b. INSTEAD OF UPDATE TRIGGER

```
CREATE TABLE EMP_AUDIT(ID INT PRIMARY KEY, FIRSTNAME VARCHAR(50),  
LASTNAME VARCHAR(50), DEPT_ID INT, action VARCHAR(50));
```

```
CREATE TRIGGER empUpdate BEFORE UPDATE ON EMPLOYEE FOR EACH ROW  
INSERT INTO EMP_AUDIT  
SET ACTION = "update",  
DEPT_ID = OLD.DEPT_ID,  
LASTNAME = OLD.LASTNAME,  
FIRSTNAME = OLD.FIRSTNAME,  
ID = OLD.ID;
```

```
DELIMITER ;
```

```
UPDATE EMPLOYEE SET DEPT_ID=105 WHERE ID = 2;  
SELECT * FROM EMP_AUDIT;  
CREATE TABLE EMP_AUDIT(ID INT PRIMARY KEY, FIRSTNAME VARCHAR(50),  
LASTNAME VARCHAR(50), DEPT_ID INT, action VARCHAR(50));
```

```
CREATE TRIGGER empUpdate BEFORE UPDATE ON EMPLOYEE FOR EACH ROW  
INSERT INTO EMP_AUDIT  
SET ACTION = "update",  
DEPT_ID = OLD.DEPT_ID,  
LASTNAME = OLD.LASTNAME,  
FIRSTNAME = OLD.FIRSTNAME,  
ID = OLD.ID;
```

```
DELIMITER ;
```

```
UPDATE EMPLOYEE SET DEPT_ID=105 WHERE ID = 2;
SELECT * FROM EMP_AUDIT;
```

	ID	FIRSTNAME	LASTNAME	DEPT_ID	action
▶	2	Taj	Mohit	102	update
•	NULL	NULL	NULL	NULL	NULL

c. INSTEAD OF DELETE TRIGGER

```
CREATE TABLE SALARIES (
    EMP_NUMBER INT PRIMARY KEY,
    VALID DATE,
    AMOUNT DEC(12 , 2 )DEFAULT 0
);
```

```
INSERT INTO SALARIES VALUES(2,'2000-01-01',50000), (3,'2000-01-01',60000),
(4,'2000-01-01',70000);
```

```
SELECT * FROM SALARIES;
```

```
CREATE TABLE SALARY_ARC (
    ID INT PRIMARY KEY,
    EMP_NUM INT,
    VALID DATE,
    AMOUNT DEC(12 , 2 ),
    DELETED_AT TIMESTAMP DEFAULT NOW()
);
```

```
CREATE TRIGGER salDelete BEFORE DELETE ON SALARIES FOR EACH ROW
INSERT INTO SALARY_ARC
VALUES(OLD.EMP_NUMBER,OLD.VALID,OLD.AMOUNT);
```

```
DELETE FROM SALARIES WHERE EMP_NUMBER = 4;
```