

LAB-9

Time : 1hr

(Monitors should be switched off exactly after 1 hour, else this will be the lab that will be discarded for you when N-1 labs are counted)

Q1 (a) (5 marks)

After updating a single row in student_mast table a new row will be inserted in stu_log table where we will store a small description about the update. Insert the Name, Old class and New class in table stu_info accordingly. Create a trigger for this.

```
CREATE TABLE STUDENT_MAST(STUDENT_ID INT PRIMARY KEY, NAME  
VARCHAR(20), ST_CLASS INT);
```

```
INSERT INTO STUDENT_MAST VALUES (1, 'Steven King', 8),(2, 'Neena Kochhar', 9),(3,  
'Lex De Haan', 9),(4, 'Alexander Hunold', 11);
```

```
CREATE TABLE STU_INFO( NAME VARCHAR(20), OLD_CLASS INT, NEW_CLASS INT);
```

Q1(b) (7 marks)

We want to store some information in stu_info table after a delete operation happened on student_mast table

We want to store the name and the class of the user. you can insert -1 for the third column to indicate it was deleted

Create a trigger for the same

Q2) (10 + 10 marks)

Consider the following information for the question below:

Account number gives information about the person's post and city.

Following are the posts acc to starting 2 digits of Account number

21 -> Driver

22 -> Peon

23 -> Cashier
24 -> Banker
25 -> Manager
26 -> Investor

Following are the cities based on last digit of account number

0 -> Del
1 -> Mum
2 -> Ban
3 -> Goa
4 -> Kol
5 -> Jai
6 -> Ker
7 -> Kar
8 -> TN
9 -> Guj

Del is the most favourable place to work and Guj the least.
Investor is the best job and driver the worst.
I hope you get the ordering now.

For this question you have to make 2 triggers

1st trigger updates the PPL table when any changes are made. The changes column in PPL table is 'None' by default. It should change to 'Promoted' or 'Demoted' if a person gets a better job title. The place, acc_no and post should change accordingly.

2nd trigger inserts in the AUDIT table. The AUDIT table stores the person's name, old and new acc_no and post, and remarks. The remarks are as follows:

If the person gets promoted and moves to a better city : "PHODA"
If the person gets promoted and stays in the same city : "SAHI"
If the person gets promoted and moves to a worse city : "PAISE TOH AAYE"
If the person stays at same job and moves to a better city : "JAGAH TOH BETTER HAI"
If the person stays at same job and stays in the same city : "NEXT TIME BRO"
If the person stays at same job and moves to a worse city : "REH GAYE"
If the person gets demoted and moves to a better city : "KOI NA HOTA HAI"
If the person gets demoted and stays in the same city : "GHAR KA KHAANA TOH HAI"

If the person gets demoted and moves to a worse city : “DUA ME YAAD RAKHNA”

```
CREATE TABLE PPL(ID INT PRIMARY KEY, NAME VARCHAR(20), PLACE VARCHAR(20),  
ACC_NO INT, POST VARCHAR(40), CHANGES VARCHAR(20));//
```

```
INSERT INTO PPL VALUES (1, 'RAJU', 'JAI', 2105, 'DRIVER', 'NONE'), (2, 'RAMU', 'TN',  
2208, 'PEON', 'NONE'), (3, 'MEENA', 'BAN', 2302, 'CASHIER', 'NONE'), (4, 'BUPPY', 'MUM',  
2401, 'BANKER', 'NONE'), (5, 'JOHNNY', 'DEL', 2500, 'MANAGER', 'NONE'), (6, 'AMBANI',  
'KAR', 2607, 'INVESTOR', 'NONE'), (7, 'TATA', 'KOL', 2604, 'INVESTOR', 'NONE'), (8,  
'SINHA', 'TN', 2508, 'MANAGER', 'NONE'), (9, 'GUPTA', 'KER', 2406, 'BANKER', 'NONE');//
```

```
CREATE TABLE AUDIT(NAME VARCHAR(100), OLD_ACC_NO INT, NEW_ACC_NO INT,  
OLD_POST VARCHAR(20), NEW_POST VARCHAR(20), REMARKS VARCHAR(40));//
```

TO CHECK (Just for you to check your output. Do save the codes for triggers and tables because TAs will delete the tables and rerun to check the output)

```
UPDATE PPL SET ACC_NO = 2203 WHERE ACC_NO = 2105;//  
UPDATE PPL SET ACC_NO = 2308 WHERE ACC_NO = 2208;//  
UPDATE PPL SET ACC_NO = 2407 WHERE ACC_NO = 2302;//  
UPDATE PPL SET ACC_NO = 2400 WHERE ACC_NO = 2401;//  
UPDATE PPL SET ACC_NO = 2500 WHERE ACC_NO = 2500;//  
UPDATE PPL SET ACC_NO = 2609 WHERE ACC_NO = 2607;//  
UPDATE PPL SET ACC_NO = 2502 WHERE ACC_NO = 2604;//  
UPDATE PPL SET ACC_NO = 2409 WHERE ACC_NO = 2508;//  
UPDATE PPL SET ACC_NO = 2306 WHERE ACC_NO = 2406;//
```

Q3.) (8 marks)

Create a procedure to print the following:

1, 2, 2, 3, 4, 5, 8, 9, 16, 17,

Number of numbers to be print will be given as an input by the user

Name the procedure ``print``

`CALL PRINT(8)` should give the output as

1, 2, 2, 3, 4, 5, 8, 9

If you can't figure out the pattern:

All odd places numbers go like 1, 2, 4, 8, 16,

All even places numbers go like 2, 3 (2+1), 5 (3+2), 9 (5+4) ,.....

You might want to use concat

`CONCAT(expression1, expression2, expression3,...)`