To Examine the consistency of database using concurrency control technique (Locks)

SAP ID: 60003220045   **CLASS:I1**

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--EXERCISE---

1.

```
CREATE TABLE EMPLOYEE(
 FNAME VARCHAR(20),
 LNAME VARCHAR(20),
 SALARY VARCHAR(20),
 DEPT VARCHAR(20),
 DOB DATE,
 CITY VARCHAR(20)
);
```

2.

```
INSERT INTO EMPLOYEE VALUES('ADAM', 'A', 1000, 'ACCOUNTS', 07-11-2022, 'MUMBAI');
INSERT INTO EMPLOYEE VALUES('BANDA', 'B', 10, 'HR', 07-11-2022, 'MUMBAI');
INSERT INTO EMPLOYEE VALUES('CAROL', 'C', 10, 'ADMIN', 07-11-2022, 'MUMBAI');
INSERT INTO EMPLOYEE VALUES('GREENE', 'G', 5000, 'TECHNICAL', 07-11-2022, 'MUMBAI');
INSERT INTO EMPLOYEE VALUES('TOM', 'T', 500, 'TECHNICAL', 07-11-2022, 'MUMBAI');
```

3.

SAVEPOINT A;

INSERT INTO EMPLOYEE VALUES('RAHUL', 'C', 10, 'HR', 08-11-2022, 'MUMBAI');

SAVEPOINT B;

INSERT INTO EMPLOYEE VALUES('RAMESH', 'F', 10, 'HR', 08-11-2022, 'MUMBAI');

SAVEPOINT C;

EMPLOYEE

FNAME	LNAME	SALARY	DEPT	D
ADAM	A	1000	ACCOUNTS	-2
BANDA	B	10	HR	-2
CAROL	C	10	ADMIN	-2
GREENE	G	5000	TECHNICAL	-2
TOM	T	500	TECHNICAL	-2
RAHUL	C	10	HR	-2
RAMESH	F	10	HR	-2

4.

ROLLBACK TO B;

EMPLOYEE

FNAME	LNAME	SALARY	DEPT
ADAM	A	1000	ACCOUNTS
BANDA	B	10	HR
CAROL	C	10	ADMIN
GREENE	G	5000	TECHNICAL
TOM	T	500	TECHNICAL
RAHUL	C	10	HR

ROLLBACK TO A;

EMPLOYEE

FNAME	LNAME	SALARY	DEPT
ADAM	A	1000	ACC
BANDA	B	10	HR
CAROL	C	10	ADM
GREENE	G	5000	TECH
TOM	T	500	TECH

5.

COMMIT;

INSERT INTO EMPLOYEE VALUES('RAAJ', 'P', 500, 'TECHNICAL', 07-11-2022, 'MUMBAI');

SAVEPOINT P;

EMPLOYEE				
FNAME	LNAME	SALARY	DEPT	
ADAM	A	1000	ACCOUNTS	
BANDA	B	10	HR	
CAROL	C	10	ADMIN	
GREENE	G	5000	TECHNICAL	
TOM	T	500	TECHNICAL	
RAAJ	P	500	TECHNICAL	

UPDATE EMPLOYEE

SET LNAME='PAUL'

WHERE FNAME = 'BANDA';

SAVEPOINT X;

EMPLOYEE				
FNAME	LNAME	SALARY	DEPT	
ADAM	A	1000	ACCOUNTS	
BANDA	PAUL	10	HR	
CAROL	C	10	ADMIN	
GREENE	G	5000	TECHNICAL	
TOM	T	500	TECHNICAL	
RAAJ	P	500	TECHNICAL	

UPDATE EMPLOYEE

SET LNAME='PAUL'

WHERE FNAME = 'GREENE';

EMPLOYEE

FNAME	LNAME	SALARY	DEPT	
ADAM	A	1000	ACCOUNTS	
BANDA	PAUL	10	HR	
CAROL	C	10	ADMIN	
GREENE	PAUL	5000	TECHNICAL	
TOM	T	500	TECHNICAL	
RAAJ	P	500	TECHNICAL	

ROLLBACK TO X;

EMPLOYEE

FNAME	LNAME	SALARY	DEPT	
ADAM	A	1000	ACCOUNTS	
BANDA	PAUL	10	HR	
CAROL	C	10	ADMIN	
GREENE	G	5000	TECHNICAL	
TOM	T	500	TECHNICAL	
RAAJ	P	500	TECHNICAL	

10.

```
UPDATE EMPLOYEE

SET SALARY = 1.05*SALARY;

SAVEPOINT A;

UPDATE EMPLOYEE

SET SALARY = 1.05*SALARY;

SAVEPOINT B;

UPDATE EMPLOYEE

SET SALARY = 1.05*SALARY;

SAVEPOINT C;
```