

SHRI VILEPARLE KELAVANI MANDAL'S DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING



(Autonomous College Affiliated to the University of Mumbai)
NAAC ACCREDITED with "A" GRADE (CGPA: 3.18)

DEPARTMENT OF INFORMATION TECHNOLOGY

COURSE CODE: DJS22ITL306 DATE:5/12/2023

COURSE NAME: DBMS CLASS: S.Y. BTech (IT) I1-Batch1

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ROLL NO: 1025

SAP ID: 60003220131

BRANCH: Information Technology

Experiment No:9

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

------EXERCISE-----

When user 1 locks in read mode, user 2 can read without any conflict but cannot write as read – write is a conflict.

User 2 can read safely.

mysql> SELECT * FROM MYTABLE;	and the second s
ID NAME ROLLNO	mysql>
101 BHAVESH 28 101 BHAVESH 28 2 rows in set (0.00 sec) mysql> LOCK TABLES MYTABLE READ; Query OK, 0 rows affected (0.00 sec) mysql>	mysql> mysql> mysql> mysql>
	mysql> mysql> SELECT * FROM MYTABLE;
	ID NAME ROLLNO
	101 BHAVESH 28 101 BHAVESH 28 2 rows in set (0.00 sec)
	mysql>

2. Read – write conflict

When user 1 is locked in read mode, user 2 cannot perform write operations.

ID	mysql> mysql> mysql> mysql> mysql> mysql> mysql> mysql> mysql>	
2 rows in set (0.00 sec)	I ID NAME ROLLNO	
mysql> LOCK TABLES MYTABLE READ; Query OK, 0 rows affected (0.00 sec)	101 ВНАVESH 28 101 ВНАVESH 28	
mysql>	2 rows in set (0.00 sec) mysq1> INSERT INTO MYTABLE VALUES(102, 'AKASH', 29);	



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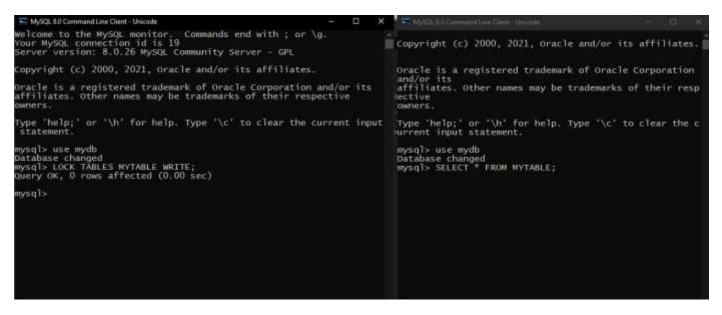
Query OK, 0 rows affected (0.00 sec)	101 BHAVESH 28
mysq1> UNLOCK TABLES;	101 BHAVESH 28
Query OK, 0 rows affected (0.00 sec)	
mysql> SELECT * FROM MYTABLE; 10	mysql> Insert Into MYTABLE VALUES(102, 'AKASH', 29); Query OK, 1 row affected (35.33 sec) mysql>

User 2 waits until the lock is removed by user 1.

Then user 2 successfully performs write operation.

Similarly, if user 1 is locked in write mode, user 2 cannot perform read operations.

User 1 in write mode.





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3. Write - Write conflict

Both users cannot write on the same resource at the same time as it is a conflict.

