**SQL\_Transactions Assignment**

***Note*:** This assignment has to be completely performed in MYSQL Workbench. Select your OS type and download workbench from the given link. <https://dev.mysql.com/downloads/workbench/>

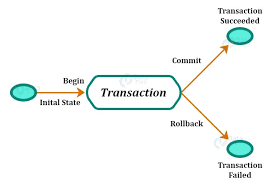
The version of MYSQL Workbench used for this assignment is 8.0.27

You can use any other stable version.

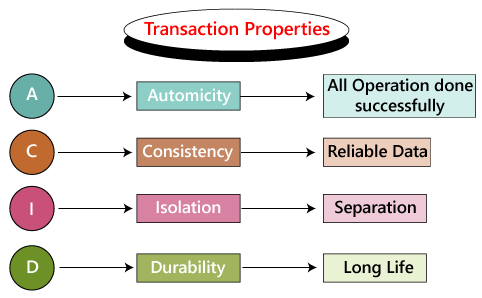
Follow:

[https://youtu.be/YSOY\_NyOg40]( https://youtu.be/YSOY_NyOg40)

* Transactions group a set of tasks into a single execution unit. Each transaction begins with a specific task and ends when all the tasks in the group successfully complete.



**TRANSACTION PROPERTIES:**



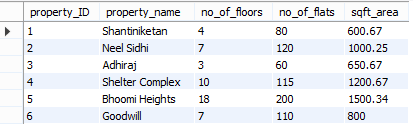
**Before beginning, lets first create a table and insert data.**

Create table ‘property’ having columns property\_id, property\_name,no-of\_floors, ,no\_of\_flats, sqft\_area

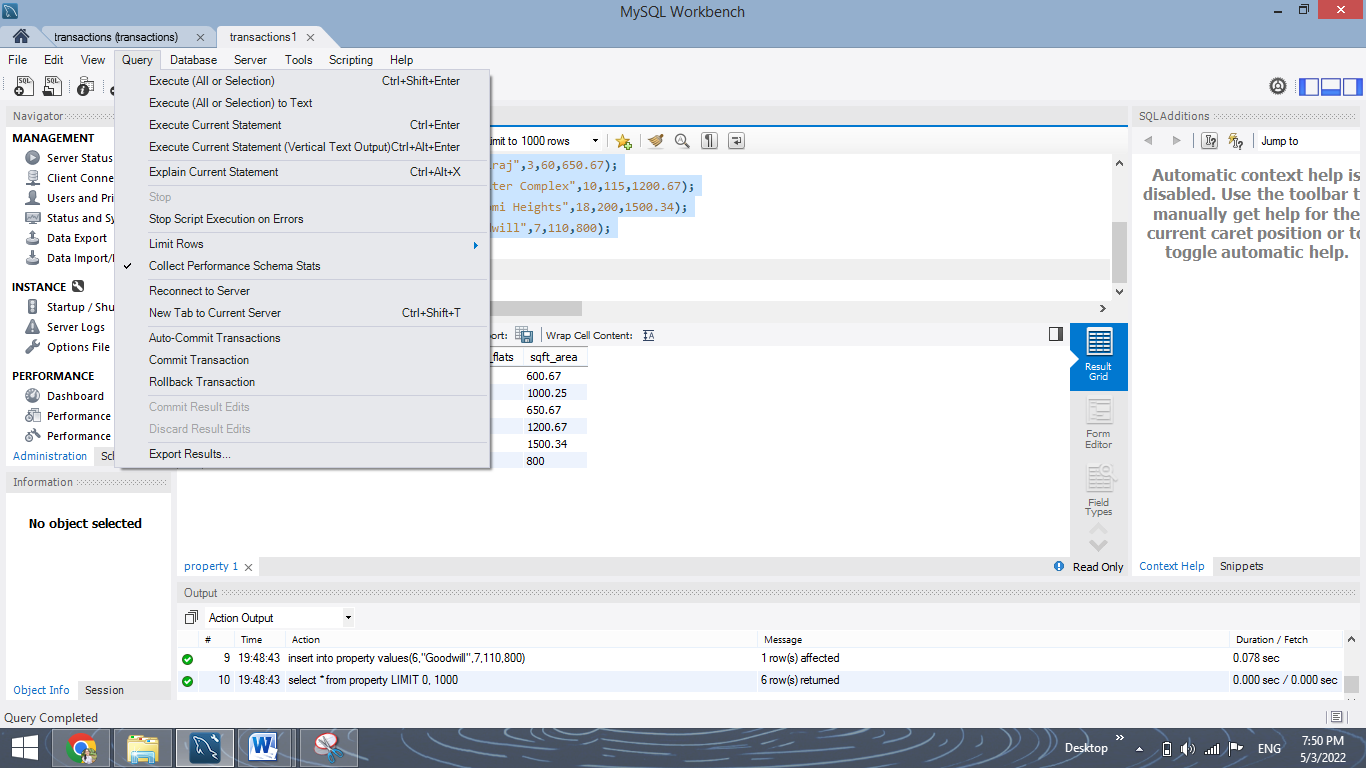
This is how our schema should look like

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**PROPERTY TABLE**



**NOTE: TURN OFF THE AUTO COMMIT OPTION IN MYSQL WORKBENCH**

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**1. COMMIT:**  The COMMIT command saves all the transactions to the database since the last COMMIT or ROLLBACK command. 

**Syntax:** 

COMMIT;

**Example:** 

DELETE FROM Student WHERE AGE = 20;

COMMIT;

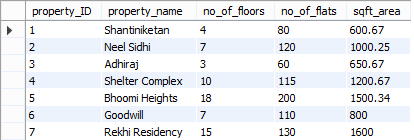
**Q1. Insert a row in the table and commit it.**

**YOUR QUERY HERE:**

insert into property values(7,"Rekhi Residency",15,130,1600);

commit;

**Output:**

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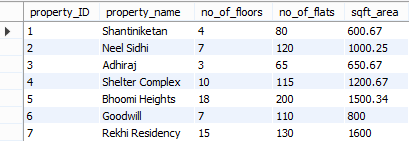
**Q2. Update the Property table, change the value of flats to 65 for “Adhiraj” property and commit this.**

**YOUR QUERY HERE:**

update property set no\_of\_flats = 65 where property\_name = 'Adhiraj';

commit;

**Output:**

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**2. ROLLBACK:** This command can only be used to undo transactions since the last COMMIT or ROLLBACK command was issued.

**Syntax:**

ROLLBACK;

**Example:**

DELETE FROM Student WHERE AGE = 20;

ROLLBACK;

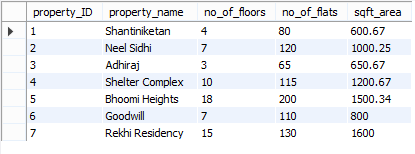
**Q3. Insert some rows in the table and rollback them.**

**YOUR QUERY HERE:**

insert into property values(8,"Niwas",4,30,1350),(9,"Aawas",2,50,1856);

rollback;

**Output:**

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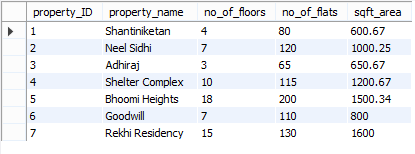
**Q4. Delete a row in the table and rollback it.**

**YOUR QUERY HERE:**

delete from property where property\_ID = 5;

rollback;

**Output:**

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**3. SAVEPOINT:** creates points within the groups of transactions in which to ROLLBACK. A SAVEPOINT is a point in a transaction in which you can roll the transaction back to a certain point without rolling back the entire transaction. 

**Syntax for Savepoint command:**

SAVEPOINT SAVEPOINT\_NAME;

**Syntax for rolling back to Savepoint command:**

ROLLBACK TO SAVEPOINT\_NAME;

**Q5. Insert certain rows to the table and create a savepoint and rollback to this savepoint again after inserting another row.**

**YOUR QUERY HERE:**

insert into property values(11,"Ambika heights",8,57,1000),(12,"Anmol plaza",7,42,900);

savepoint s1;

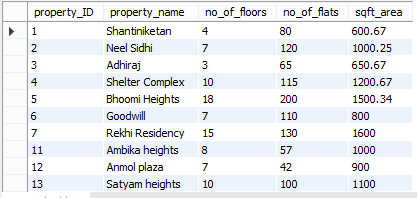
select \* from property;

insert into property values(13,"Satyam heights",10,100,1100);

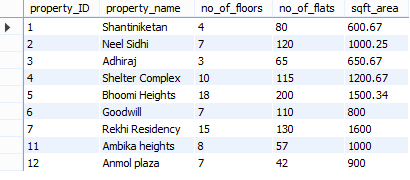
rollback to s1;

select \* from property;

**Output after inserting data and creating savepoint:**



**Output after inserting another row and rolling back to savepoint:**



**Q6. Delete records having floors greater than equal to 10 and create a savepoint. Insert another row after this and rollback to the savepoint created above.**

**YOUR QUERY HERE:**

delete from property where no\_of\_floors >= 10;

savepoint s2;

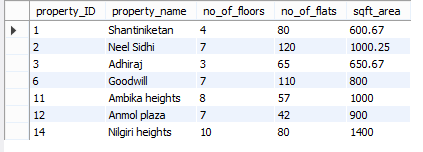
insert into property values(14,"Nilgiri heights",10,80,1400);

select \* from property;

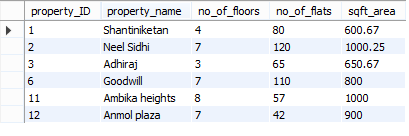
rollback to s2;

select \* from property;

**Output after deleting records, creating savepoint and inserting a row:**

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**Output after rolling back to the savepoint:**

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***Congratulations, you have just completed an assignment!!***

