

Database Transactions

Objectives

- Define the terms COMMIT, ROLLBACK, and SAVEPOINT as they relate to data transactions
- Write queries using COMMIT, ROLLBACK and SAVEPOINTS
- Explain why it is important, from a business perspective, to be able to control the flow of transaction processing

Try It / Solve It

1. Define the terms COMMIT, ROLLBACK, and SAVEPOINT as they relate to data transactions.

2. What data will be committed after the following statements are issued?

```
INSERT INTO R values (5, 6);  
SAVEPOINT my_savepoint_1;  
INSERT INTO R values (7, 8);  
SAVEPOINT my_savepoint_2;  
INSERT INTO R values (9, 10);  
ROLLBACK TO my_savepoint_1;  
INSERT INTO R values (11, 12);  
COMMIT;
```

3. Construct a SQL statement for the DJ on Demand D_SONGS table that deletes the song "All These Years," inserts a new Country song called 'Happy Birthday Sunshine' by "The Sunsets" with a duration of 4 min and an ID = 60. Make sure that all data can be recovered before any changes to the table are made.

4. Write an SQL statement that will issue an automatic commit.

5. Give two examples of business other than banks that rely on transaction control processes. Describe why each business needs transaction processing control.