

IS 456 IT Database Systems Management

HOP06 Basic SQLite Transactions

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Before You Start

1. The directory path shown in screenshots may be different from yours.
2. Some steps are not explained in the tutorial. If you are not sure what to do:
 1. Consult the resources listed below.
 2. If you cannot solve the problem after a few tries, ask a TA for help.

Learning Outcomes

Students will be able to:

1. Understand the SQLite queries.
2. Run queries in SQLite.
3. Working with transactions

/----- -- 02 transactions -- test.db -----/

```
-- Query #1
CREATE TABLE widgetInventory (
  id INTEGER PRIMARY KEY,
  description TEXT,
  onhand INTEGER NOT NULL
);
```

Query 1

```
-- Query #2
CREATE TABLE widgetSales (
  id INTEGER PRIMARY KEY,
  inv_id INTEGER,
  quan INTEGER,
  price INTEGER
);
```

Query 2

```
-- Query 3-7
INSERT INTO widgetInventory ( description, onhand ) VALUES ( 'rock', 25 );
INSERT INTO widgetInventory ( description, onhand ) VALUES ( 'paper', 25 );
INSERT INTO widgetInventory ( description, onhand ) VALUES ( 'scissors', 25 );

SELECT * FROM widgetInventory;
SELECT * FROM widgetSales;
```

Query 3

```
-- Query #8
BEGIN TRANSACTION;
INSERT INTO widgetSales ( inv_id, quan, price ) VALUES ( 1, 5, 500 );
UPDATE widgetInventory SET onhand = ( onhand - 5 ) WHERE id = 1;
END TRANSACTION;
```

Query 8

```
-- Query #9
BEGIN TRANSACTION;
INSERT INTO widgetInventory ( description, onhand ) VALUES ( 'toy', 25 );
ROLLBACK;
SELECT * FROM widgetInventory;
```

Query 9

```
-- restore database
DROP TABLE IF EXISTS widgetInventory;
DROP TABLE IF EXISTS widgetSales;
```

Transactions

Restore Database

-- 03 performance -- test.db

1000 insert statements

```
CREATE TABLE test ( id INTEGER PRIMARY KEY, data TEXT );

-- put this before the 1,000 INSERT statements
BEGIN TRANSACTION;

-- copy / paste 1,000 of these ...
```


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