**IS 456 IT Database Systems Management**

**HOP06 Basic SQLite Transactions**

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**Before You Start**

* The directory path shown in screenshots may be different from yours.
* 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:

Students will be able to:

* Understand the SQLite queries.
* Run queries in SQLite.
* Working with transactions

-- 02 transactions

-- test.db

CREATE TABLE widgetInventory (

id INTEGER PRIMARY KEY,

description TEXT,

onhand INTEGER NOT NULL

);

CREATE TABLE widgetSales (

id INTEGER PRIMARY KEY,

inv\_id INTEGER,

quan INTEGER,

price INTEGER

);

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;

BEGIN TRANSACTION;

INSERT INTO widgetSales ( inv\_id, quan, price ) VALUES ( 1, 5, 500 );

UPDATE widgetInventory SET onhand = ( onhand - 5 ) WHERE id = 1;

END TRANSACTION;

BEGIN TRANSACTION;

INSERT INTO widgetInventory ( description, onhand ) VALUES ( 'toy', 25 );

ROLLBACK;

SELECT \* FROM widgetInventory;

-- restore database

DROP TABLE IF EXISTS widgetInventory;

DROP TABLE IF EXISTS widgetSales;

-- 03 performance

-- test.db

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 ...

INSERT INTO test ( data ) VALUES ( 'this is a good sized line of text.' );

-- put this after the 1,000 INSERT statements

END TRANSACTION;

SELECT COUNT(\*) FROM test;

-- restore database

DROP TABLE test;