

Stored Procedures

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Using cursors in stored procedures

The MySQL code below is from a [stackoverflow answer](#). It provides a design pattern with detailed explanation of the behavior of a cursor inside the stored procedure.

```
DELIMITER $$

DROP PROCEDURE IF EXISTS `my_proc` $$
CREATE PROCEDURE `my_proc`(arg1 INT) -- 1 input argument; you might not need one
BEGIN

-- from http://stackoverflow.com/questions/35858541/call-a-stored-procedure-from-the-declare-statement-when-
using-cursors-in-mysql

-- declare the program variables where we'll hold the values we're sending into the procedure;
-- declare as many of them as there are input arguments to the second procedure,
-- with appropriate data types.

DECLARE val1 INT DEFAULT NULL;
DECLARE val2 INT DEFAULT NULL;

-- we need a boolean variable to tell us when the cursor is out of data

DECLARE done TINYINT DEFAULT FALSE;

-- declare a cursor to select the desired columns from the desired source table1
-- the input argument (which you might or might not need) is used in this example for row selection

DECLARE cursor1 -- cursor1 is an arbitrary label, an identifier for the cursor
CURSOR FOR
SELECT t1.c1,
       t1.c2
FROM table1 t1
WHERE c3 = arg1;
```

```

-- this fancy spacing is of course not required; all of this could go on the same line.

-- a cursor that runs out of data throws an exception; we need to catch this.
-- when the NOT FOUND condition fires, "done" -- which defaults to FALSE -- will be set to true,
-- and since this is a CONTINUE handler, execution continues with the next statement.

DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = TRUE;

-- open the cursor

OPEN cursor1;

my_loop: -- loops have to have an arbitrary label; it's used to leave the loop
LOOP

    -- read the values from the next row that is available in the cursor

    FETCH NEXT FROM cursor1 INTO val1, val2;

    IF done THEN -- this will be true when we are out of rows to read, so we go to the statement after END LOOP.
        LEAVE my_loop;
    ELSE -- val1 and val2 will be the next values from c1 and c2 in table t1,
        -- so now we call the procedure with them for this "row"
        CALL the_other_procedure(val1,val2);
        -- maybe do more stuff here
    END IF;
END LOOP;

-- execution continues here when LEAVE my_loop is encountered;
-- you might have more things you want to do here

END $$

DELIMITER ;

```

[Source](#)