

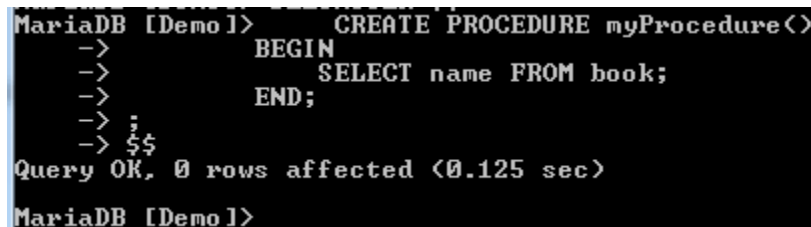
Stored Procedure

A stored procedure in SQL is a type of pre-written code that can be stored for later execution and then used many times hence, saving time. It is a group of SQL statements that performs the task. The stored procedure can be invoked explicitly whenever required. It may accept some inputs in the form of parameters, these may be one parameter or multiple parameters. A procedure doesn't return values. To create a procedure, we use the CREATE PROCEDURE command.

To demonstrate how to create and call a procedure, we will create a procedure named myProcedure() that helps us select the name column from the book table. Here is the procedure:

Eg. Suppose we have following table: book(id,name)

```
DELIMITER $$
CREATE PROCEDURE myProcedure()
BEGIN
    SELECT name FROM book;
END;
;
$$
```



```
MariaDB [Demo]> CREATE PROCEDURE myProcedure()
-> BEGIN
-> SELECT name FROM book;
-> END;
-> ;
-> $$
Query OK, 0 rows affected (0.125 sec)
MariaDB [Demo]>
```

The procedure has been created. We have simply enclosed the SELECT statement within the BEGIN and END clauses of the procedure.

Now, we can call the procedure by its name as shown below:

```
CALL myProcedure();
```

```

MariaDB [Demo]> CALL myProcedure();
-> $$
+-----+
| name |
+-----+
| MariaDB Book1 |
| MariaDB Book2 |
| MariaDB Book3 |
| MariaDB Book4 |
| MariaDB Book5 |
+-----+
5 rows in set (0.065 sec)

Query OK, 0 rows affected (0.077 sec)

MariaDB [Demo]>

```

The procedure returns the name column of the book table when called.

We can create a procedure that takes in a parameter. For example, we need to select the name of the book and filter using the book id. We can create the following procedure for this:

```

DELIMITER $$
CREATE PROCEDURE myProcedure2(book_id int)
BEGIN
    SELECT name FROM book WHERE id=book_id;
END;
;
$$

```

```

MariaDB [Demo]> CREATE PROCEDURE myProcedure2(book_id int)
-> BEGIN
-> SELECT name FROM book WHERE id = book_id;
-> END;
-> ;
-> $$
Query OK, 0 rows affected (0.101 sec)

MariaDB [Demo]>

```

Above, we have created a procedure named myProcedure2(). This procedure takes one integer parameter named book_id which is the id of the book whose name we need to see. To see the name of the book with an id of 3, we can call the procedure as follows:

```
CALL myProcedure2(3);
```

```
MariaDB [Demo1> CALL myProcedure2(3);
-> $$
+-----+
| name  |
+-----+
| MariaDB Book3 |
+-----+
1 row in set (0.001 sec)

Query OK, 0 rows affected (0.005 sec)

MariaDB [Demo1>
```