RETURNING clause … have your cake and eat it too!

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But what is RETURNING clause?

- Returns the result set or the select expression for the inserted, modified/replaced or deleted data.
- Currently used with 3 statements:
  - DELETE RETURNING (MariaDB Server 10.0)
  - INSERT RETURNING (MariaDB Server 10.5)
  - REPLACE RETURNING (MariaDB Server 10.5)

So what expressions can we use?

Any SQL expressions which can be calculated can be used in the select expression for RETURNING clause. Example:

- Virtual columns, alias
- Expressions with various operators
- Functions
- Subquery an prepared statement

Why do we need it?

- Sometimes we want to get the data that is modified.
- Trigger actions in your application based on what gets modified or if data gets modified at all.
- Data is created in addition to the one that is explicitly inserted. Example: Autoincrement and default value
- Saves a round trip
- Running less query and getting the same job done!

How do we use it?

```
MariaDB [customer_db]> CREATE TABLE customers(customer_id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
    ->                        first_name VARCHAR(10),
    ->                        last_name VARCHAR(10),
    ->                        city VARCHAR(15) DEFAULT 'Toronto',
    ->                        credit_score INT);
Query OK, 0 rows affected (0.001 sec)
```

```
MariaDB [customer_db]> INSERT INTO customers(first_name, last_name, credit_score)
    ->             VALUES ('Matilda','Wormwood',810)
    ->             RETURNING customer_id, (SELECT IF(credit_score>800,
    ->                                               'Grant loan',
    ->                                               'Dont grant loan')
    ->                                     ) AS Decision;
+-------------+------------+
| customer_id | Decision   |
+-------------+------------+
|           1 | Grant loan |
+-------------+------------+
1 row in set (0.001 sec)
```

MariaDB

```
MariaDB [customer_db]> INSERT INTO customers(first_name, last_name, credit_score)
    ->                       VALUES ('Anthony','Stark',800)
    ->                       RETURNING first_name,last_name,credit_score;
+------------+-----------+--------------+
| first_name | last_name | credit_score |
+------------+-----------+--------------+
| Anthony    | Stark     |          800 |
+------------+-----------+--------------+
1 row in set (0.000 sec)
```

MariaDB

```
MariaDB [customer_db]> REPLACE INTO customers(first_name, last_name, credit_score)
    ->                       VALUES ('Agatha','Trunchbull',490) RETURNING *;
+-------------+------------+------------+---------+--------------+
| customer_id | first_name | last_name  | city    | credit_score |
+-------------+------------+------------+---------+--------------+
|           3 | Agatha     | Trunchbull | Toronto |          490 |
+-------------+------------+------------+---------+--------------+
1 row in set (0.000 sec)

MariaDB [customer_db]>
MariaDB [customer_db]> REPLACE INTO customers(first_name, last_name, credit_score)
    ->                       VALUES ('Peter','Pettigrew',250) RETURNING *;
+-------------+------------+-----------+---------+--------------+
| customer_id | first_name | last_name | city    | credit_score |
+-------------+------------+-----------+---------+--------------+
|           4 | Peter      | Pettigrew | Toronto |          250 |
+-------------+------------+-----------+---------+--------------+
1 row in set (0.001 sec)
```

```
MariaDB [customer_db]> DELETE FROM customers WHERE credit_score<700
    ->                          RETURNING customer_id,
    ->                                    (SELECT IF(credit_score<500,
    ->                                               'Poor credit score',
    ->                                               'Not in the excellent range')
    ->                                    ) AS Decision;
+-------------+--------------------+
| customer_id | Decision           |
+-------------+--------------------+
|           3 | Poor credit score  |
|           4 | Poor credit score  |
+-------------+--------------------+
2 rows in set (0.002 sec)
```

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Thank You!