

## R9c: SQL query, testing with production data

Create Trigger `update_product_rating_on_update`: this trigger changes the average rating of a product id when an existing comment is updated (that changes a customer's rating of a product):

Command:

```
50 delimiter $$
51 • CREATE TRIGGER UPDATE_product_rating_ON_UPDATE
52 AFTER UPDATE ON Comment
53 FOR EACH ROW
54 BEGIN
55     IF (OLD.rating <> new.rating) THEN
56         SET @new_total := (SELECT count(*) FROM Comment WHERE product_id = new.product_id);
57         SET @old_rating := (SELECT product_rating FROM product WHERE product_id = new.product_id);
58         SET @new_rating := (
59             (@old_rating * @new_total - old.rating + new.rating) / @new_total
60         );
61         UPDATE product
62         SET product_rating = ROUND(@new_rating, 1)
63         WHERE product_id = new.product_id;
64     END IF;
65 END $$
66 delimiter ;
```

To test the command: we update a comment for product whose `product_id` is 100

```
11 • SELECT * FROM comment WHERE product_id=100;
12 • SELECT * FROM product WHERE product_id=100;
13 • UPDATE Comment SET rating=0 WHERE comment_id=106;
14 • SELECT * FROM product WHERE product_id=100;
```

Output as follows:

	comment_id	rating	updated_time	content	user_id	product_id
▶	100	4	2020-10-14 10:20:00	very good	100	100
	104	5	2019-10-10 10:00:50	My mom loves it	200	100
	105	3	2018-12-30 12:45:57	didn't turn out to be expected	300	100
	106	1	2022-10-15 08:08:09	It sucks	400	100
	107	1	2021-03-28 08:35:45	would never buy again	500	100
*	NULL	NULL	NULL	NULL	NULL	NULL

product_id	description	price	product_rating	pic
100	Product of Dole Cherry Mixed Fruit Cups, 16 pk./4 oz. Canned Fruit	19.72	2.8	http
NULL	NULL	NULL	NULL	NULL

Result Grid					
		Filter Rows:	Edit:		Export/Import:
					Wrap Cell Content:
	product_id	description		price	product_rating
▶	100	Product of Dole Cherry Mixed Fruit Cups, 16 pk./4 oz. Canned Fruit		19.72	2.6
*	NULL	NULL		NULL	NULL

Notice the rating has changed from 2.8 to 2.6

Get rating by product id: this query calculates the average rating of a product based on product id:

Command:

```
17 • SELECT product_rating FROM Product WHERE product_id=100;
```

Output:

Result Grid	
Filter Rows:	
	product_rating
▶	2.6