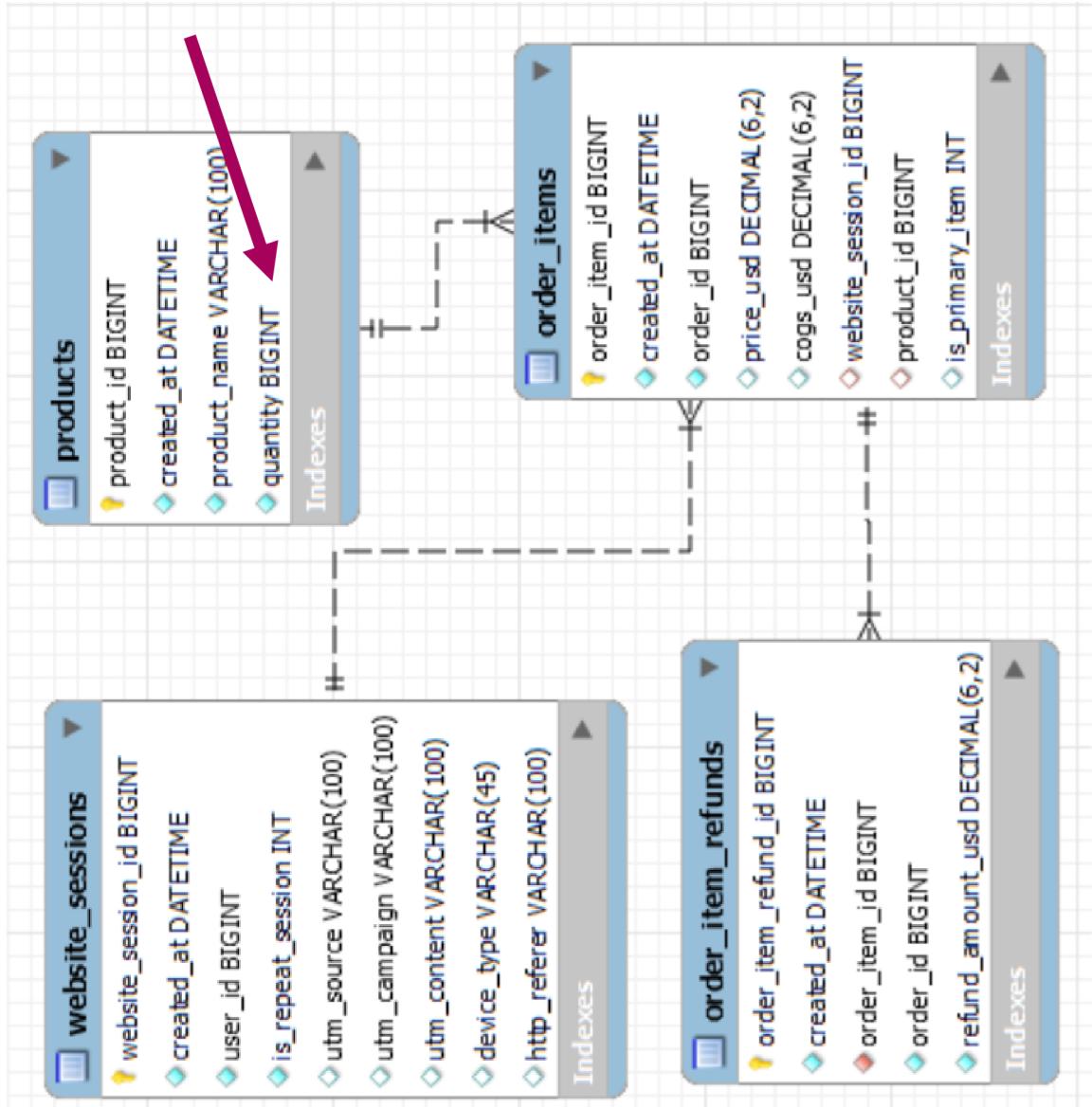


AUTOMATING MYSQL DATABASES WITH TRIGGERS





Challenge

Inventory stock doesn't update automatically with new orders, cancelled orders, or new deliveries from suppliers.

Tool
The TRIGGER command can automate certain actions when related tables in the database are updated.

Determines when trigger is executed (BEFORE or AFTER).

CREATE TRIGGER trigger_name

{**BEFORE|AFTER}**} {**INSERT|UPDATE|DELETE**}

ON table_name
FOR EACH ROW

{**FOLLOW|PRECEDES**} existing_trigger_name

[Statement to execute with trigger]

WHERE column_name = {**OLD|NEW**}.column_name

Determines after which action the trigger is executed. INSERT when new records are inserted, UPDATE when they are updated, and DELETE when deleted

Optional, only used if there are other triggers for the same action.
Determines whether trigger FOLLOW or PRECEDES the other trigger.

Determines whether it's referring to the OLD column prior to the action or the NEW afterwards. NEW can't be used with DELETE and OLD can't be used with INSERT due to the records not existing in those cases.

New Order Trigger

```
CREATE TRIGGER reduce_product_quantity
AFTER INSERT
ON order_items
FOR EACH ROW
UPDATE products
SET quantity = quantity - 1
WHERE product_id = NEW.product_id;
```

	product_id	created_at	product_name	quantity
▶	1	2022-05-22 12:00:00	iPhone	10
*	NULL	NULL	NULL	NULL

```
INSERT INTO order_items VALUES
(1, '2022-05-21 22:00', 1, 799, 600, 1, 1, 1);
```

	product_id	created_at	product_name	quantity
▶	1	2022-05-22 12:00:00	iPhone	9
*	NULL	NULL	NULL	NULL

Cancelled Order Trigger

```
CREATE TRIGGER add_product_quantity
AFTER DELETE
ON order_items
FOR EACH ROW
UPDATE products
SET quantity = quantity + 1
WHERE product_id = OLD.product_id;
```

	product_id	created_at	product_name	quantity
▶	1	2022-05-22 12:00:00	iPhone	10
*	NULL	NULL	NULL	NULL

Solution
Triggers are used to reduce the stock quantity for new orders and increase it for cancellations.