

Language: MySQL

Below are the picture results of the tables and the script for creating them:

Table (*products*):

```
mysql> SELECT * FROM products;
+-----+-----+-----+
| product_id | name           | category |
+-----+-----+-----+
| 1          | apple          | fruit    |
| 2          | banana         | fruit    |
| 3          | mechanical keyboard | electronics |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

Table (*products*) creation query:

```
CREATE TABLE products (
    product_id int NOT NULL AUTO_INCREMENT,
    name VARCHAR(255),
    category VARCHAR(255),
    PRIMARY KEY(product_id));
```

One of the insertion commands used to create the data of this table (other data in *products* are also added in this same format):

```
INSERT INTO products(name, category) VALUES ("apple", "fruit");
```

Table (*product_price_history*):

```
mysql> SELECT * FROM product_price_history;
+-----+-----+-----+-----+-----+
| history_id | product_id | price | start_date | end_date |
+-----+-----+-----+-----+-----+
|          1 |          2 | 1.99  | 2020-01-01 | 2020-01-30 |
|          2 |          2 | 0.99  | 2020-01-30 | NULL      |
|          3 |          3 | 150.0 | 2020-01-30 | NULL      |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

Table (*product_price_history*) creation query:

```
CREATE TABLE product_price_history (
    history_id int NOT NULL AUTO_INCREMENT,
    product_id int NOT NULL,
    price VARCHAR(255),
    start_date DATE NOT NULL,
    end_date DATE,
    PRIMARY KEY(history_id),
    FOREIGN KEY(product_id) REFERENCES products(product_id));
```

One of the insertion commands used to create the data of this table (other data in *product_price_history* are also added in this same format):

```
INSERT INTO product_price_history(product_id, price, start_date, end_date)
VALUES (2, "1.99", '2020-01-01', '2020-01-30');
```

or

```
INSERT INTO product_price_history(product_id, price, start_date)
VALUES (2, "0.99", '2020-01-30');
```

Inner Joining Tables (*products* & *product_price_history*):

```
mysql> SELECT * FROM products, product_price_history
-> WHERE products.product_id = product_price_history.product_id;
+-----+-----+-----+-----+-----+-----+-----+-----+
| product_id | name          | category | history_id | product_id | price | start_date | end_date |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | banana      | fruit   | 1 | 2 | 1.99 | 2020-01-01 | 2020-01-30 |
| 2 | banana      | fruit   | 2 | 2 | 0.99 | 2020-01-30 | NULL       |
| 3 | mechanical keyboard | electronics | 3 | 3 | 150.0 | 2020-01-30 | NULL       |
+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

Table joining query:

```
SELECT * FROM products, product_price_history
WHERE products.product_id = product_price_history.product_id;
```