



TECNOLÓGICO
NACIONAL DE MÉXICO



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Link 1



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1. Iniciamos la transacción

```
START TRANSACTION;
```

2. Obtenemos la última orden

```
SELECT @orderNumber:=MAX(orderNumber)+1
```

```
FROM orders;
```

3. Insertamos una nueva orden para el cliente 145

```
INSERT INTO orders(orderNumber, orderDate, requiredDate, shippedDate, status,  
customerNumber)
```

```
VALUES(@orderNumber, '2005-05-31', '2005-06-10', '2005-06-11', 'In Process', 145);
```

```
mysql> START TRANSACTION;  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> SELECT @orderNumber:=MAX(orderNumber)+1  
-> FROM orders;  
+-----+  
| @orderNumber:=MAX(orderNumber)+1 |  
+-----+  
| 10427 |  
+-----+  
1 row in set, 1 warning (0.00 sec)  
  
mysql> INSERT INTO orders(orderNumber, orderDate, requiredDate, shippedDate, status, customerNumber)  
-> VALUES(@orderNumber,  
-> '2005-05-31',  
-> '2005-06-10',  
-> '2005-06-11',  
-> 'In Process',  
-> 145);  
Query OK, 1 row affected (0.00 sec)
```

4. Insertamos los registros de los objetos

- INSERT INTO orderdetails(orderNumber, productCode, quantityOrdered, priceEach, orderLineNumber)
- VALUES(@orderNumber, 'S18_1749', 30, '136', 1), (@orderNumber, 'S18_2248', 50, '55.09', 2);

5. hacemos commit de los cambios

- COMMIT;
- SELECT a.orderNumber, orderDate, requiredDate, shippedDate, status, comments, customerNumber, orderLineNumber, productCode, quantityOrdered, priceEach FROM orders a INNER JOIN orderdetails b USING (orderNumber) WHERE a.orderNumber = 10426;
- ROLLBACK;
- START TRANSACTION;



- DELETE FROM
- ROLLBACK;



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orders;



```
mysql> INSERT INTO orderdetails(orderNumber,  
-> productCode,  
-> quantityOrdered,  
-> priceEach,  
-> orderLineNumber)  
-> VALUES(@orderNumber,'S18_1749', 30, '136', 1),  
-> (@orderNumber,'S18_2248', 50, '55.09', 2);  
Query OK, 2 rows affected (0.00 sec)  
Records: 2 Duplicates: 0 Warnings: 0
```

```
mysql> COMMIT;  
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> SELECT  
-> a.orderNumber,  
-> orderDate,  
-> requiredDate,  
-> shippedDate,  
-> status,  
-> comments,  
-> customerNumber,  
-> orderLineNumber,  
-> productCode,  
-> quantityOrdered,  
-> priceEach  
-> FROM  
-> orders a  
-> INNER JOIN  
-> orderdetails b USING (orderNumber)  
-> WHERE  
-> a.orderNumber = 10426;
```

orderNumber	orderDate	requiredDate	shippedDate	status	comments	customerNumber	orderLineNumber	productCode	quantityOrdered	priceEach
10426	2005-05-31	2005-06-10	2005-06-11	In Process	NULL	145	1	S18_1749	30	136.00
10426	2005-05-31	2005-06-10	2005-06-11	In Process	NULL	145	2	S18_2248	50	55.09

2 rows in set (0.00 sec)



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Link 2:

COMMIT Example=====

- START TRANSACTION;
- SELECT @income:= MAX(income) FROM employees;
- INSERT INTO employees(emp_id, emp_name, emp_age, city, income)
- VALUES (111, "Alexander", 45, "California", 70000);
- INSERT INTO Orders(order_id, prod_name, order_num, order_date)
- VALUES (6, "Printer", 5654, "2020-01-10");
- COMMIT;

```
mysql> use link2;
Database changed
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql> SELECT @income:= MAX(income) FROM employees;
+-----+
| @income:= MAX(income) |
+-----+
|          5000000      |
+-----+
1 row in set, 1 warning (0.13 sec)

mysql> INSERT INTO employees(emp_id, emp_name, emp_age, city, income)
-> VALUES (111, "Alexander", 45, "California", 70000);
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Orders(order_id, prod_name, order_num, order_date)
-> VALUES (6, "Printer", 5654, "2020-01-10");
ERROR 1054 (42S22): Unknown column 'prod_name' in 'field list'
mysql> INSERT INTO Orders(order_id, Product_name, order_num, order_date)
-> VALUES (6, "Printer", 5654, "2020-01-10");
Query OK, 1 row affected (0.00 sec)

mysql> COMMIT;
Query OK, 0 rows affected (0.06 sec)

mysql>
```

=====



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ROLLBACK Example:

- Start a new transaction
 - START TRANSACTION;
- Delete data from the order table
 - DELETE FROM Orders;

```
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql> DELETE FROM Orders;
Query OK, 6 rows affected (0.05 sec)

mysql> SELECT * FROM Orders;
Empty set (0.00 sec)

mysql>
```

- Rollback changes
 - ROLLBACK;
- Verify the records in the first session
 - SELECT * FROM Orders;

```
mysql> ROLLBACK;
Query OK, 0 rows affected (0.08 sec)

mysql> SELECT * FROM Orders;
+-----+-----+-----+-----+
| order_id | Product_Name | order_Num | Order_Date |
+-----+-----+-----+-----+
| 1 | Laptop | 5544 | 2020-02-01 |
| 2 | Mouse | 3322 | 2020-02-11 |
| 3 | Desktop | 2135 | 2020-01-05 |
| 4 | Mobiel | 3432 | 2020-02-22 |
| 5 | Anti-Virus | 5648 | 2020-03-10 |
| 6 | Printer | 5654 | 2020-01-10 |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql>
```



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SAVEPOINT, ROLLBACK TO SAVEPOINT, RELEASE SAVEPOINT Example

- START TRANSACTION;
- SELECT * FROM Orders;
- INSERT INTO Orders(order_id, prod_name, order_num, order_date)
VALUES (6, 'Printer', 5654, '2020-01-10');
- SAVEPOINT my_savepoint;
- INSERT INTO Orders(order_id, prod_name, order_num, order_date)
VALUES (7, 'Ink', 5894, '2020-03-10');
- ROLLBACK TO SAVEPOINT my_savepoint;
- INSERT INTO Orders(order_id, prod_name, order_num, order_date)
VALUES (8, 'Speaker', 6065, '2020-02-18');
- COMMIT;

```
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql> SELECT * FROM Orders;
+-----+-----+-----+-----+
| order_id | Product_Name | order_Num | Order_Date |
+-----+-----+-----+-----+
| 1 | Laptop | 5544 | 2020-02-01 |
| 2 | Mouse | 3322 | 2020-02-11 |
| 3 | Desktop | 2135 | 2020-01-05 |
| 4 | Mobiel | 3432 | 2020-02-22 |
| 5 | Anti-Virus | 5648 | 2020-03-10 |
| 6 | Printer | 5654 | 2020-01-10 |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> INSERT INTO Orders(order_id, prod_name, order_num, order_date)
-> VALUES (6, 'Printer', 5654, '2020-01-10');
ERROR 1054 (42S22): Unknown column 'prod_name' in 'field list'
mysql> INSERT INTO Orders(order_id, prod_name, order_num, order_date) ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near '' a
t line 1
mysql> INSERT INTO Orders(order_id, Product_name, order_num, order_date)
-> VALUES (6, "Printer", 5654, "2020-01-10");
ERROR 1062 (23000): Duplicate entry '6' for key 'orders.PRIMARY'
mysql> SAVEPOINT my_savepoint;
Query OK, 0 rows affected (0.00 sec)

mysql> INSERT INTO Orders(order_id, product_name, order_num, order_date)
mysql> SAVEPOINT my_savepoint;
Query OK, 0 rows affected (0.00 sec)

mysql> INSERT INTO Orders(order_id, product_name, order_num, order_date)
-> VALUES (7, "Ink", 5894, "2020-03-10");
Query OK, 1 row affected (0.01 sec)

mysql> ROLLBACK TO SAVEPOINT my_savepoint;
Query OK, 0 rows affected (0.00 sec)

mysql> INSERT INTO Orders(order_id, product_name, order_num, order_date)
-> VALUES (8, "Speaker", 6065, "2020-02-18");
Query OK, 1 row affected (0.00 sec)

mysql> COMMIT;
Query OK, 0 rows affected (0.05 sec)
```



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- START TRANSACTION;
- INSERT INTO Orders(order_id, product_name, order_num, order_date)
- VALUES (7, "Ink", 5894, '2020-03-10');
- SAVEPOINT my_savepoint;
- UPDATE Orders SET prod_name='Scanner' WHERE order_id=8;
- RELEASE SAVEPOINT my_savepoint;
- COMMIT;

```
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql> INSERT INTO Orders(order_id, product_name, order_num, order_date)
-> VALUES (7, "Ink", 5894, "2020-03-10");
Query OK, 1 row affected (0.02 sec)

mysql> SAVEPOINT my_savepoint;
Query OK, 0 rows affected (0.09 sec)

mysql> UPDATE Orders SET prod_name="Scanner" WHERE order_id=8;
ERROR 1054 (42S22): Unknown column 'prod_name' in 'field list'
mysql> UPDATE Orders SET product_name="Scanner" WHERE order_id=8;
Query OK, 1 row affected (0.10 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> RELEASE SAVEPOINT my_savepoint;
Query OK, 0 rows affected (0.00 sec)

mysql> COMMIT;
Query OK, 0 rows affected (0.15 sec)
```



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Link 3;

Ejemplo 1:

- select * from student_mast;
- UPDATE STUDENT_MAST SET ST_CLASS=8 WHERE STUDENT_ID=2;
- select * from student_mast;
- ROLLBACK;
- select * from student_mast;

```
mysql> select * from student_mast;
+-----+-----+-----+
| student_id | name           | st_class |
+-----+-----+-----+
| 2          | Neena Kochhar  | 9        |
| 3          | Lex de Haan   | 9        |
| 4          | Alexander Hunold | 11       |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> UPDATE STUDENT_MAST SET ST_CLASS=8 WHERE STUDENT_ID=2;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from student_mast;
+-----+-----+-----+
| student_id | name           | st_class |
+-----+-----+-----+
| 2          | Neena Kochhar  | 8        |
| 3          | Lex de Haan   | 9        |
| 4          | Alexander Hunold | 11       |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from student_mast;
+-----+-----+-----+
| student_id | name           | st_class |
+-----+-----+-----+
| 2          | Neena Kochhar  | 8        |
| 3          | Lex de Haan   | 9        |
| 4          | Alexander Hunold | 11       |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> _
```




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EJEMPLO 2:

- START TRANSACTION;
- UPDATE STUDENT_MAST SET ST_CLASS=10 WHERE STUDENT_ID=2;
- select * from student_mast;
- ROLLBACK;
- select * from student_mast;

```
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql> UPDATE STUDENT_MAST SET ST_CLASS=10 WHERE STUDENT_ID=2;
Query OK, 1 row affected (0.10 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from student_mast;
+-----+-----+-----+
| student_id | name           | st_class |
+-----+-----+-----+
| 2          | Neena Kochhar  | 10       |
| 3          | Lex de Haan    | 9        |
| 4          | Alexander Hunold | 11       |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> ROLLBACK;
Query OK, 0 rows affected (0.15 sec)

mysql> select * from student_mast;
+-----+-----+-----+
| student_id | name           | st_class |
+-----+-----+-----+
| 2          | Neena Kochhar  | 8        |
| 3          | Lex de Haan    | 9        |
| 4          | Alexander Hunold | 11       |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```