
1. Difference between NULL and 0?

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****NULL**** represents **missing or unknown data**.

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****0**** is a **known numeric value**, representing zero.

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Example: `NULL ≠ 0`

2. What is a default constraint?

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A **DEFAULT constraint** assigns a **default value** to a column if no value is provided during `INSERT`.

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Example:

```
CREATE TABLE Users (  
    id INT,  
    status VARCHAR(10) DEFAULT 'active'  
);
```

3. How does IS NULL work?

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`IS NULL` checks whether a column has a `NULL` value.

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Example:

```
SELECT * FROM users WHERE email IS NULL;
```

4. How do you update multiple rows?

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Use `UPDATE` with a condition that matches multiple rows.

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Example:

```
UPDATE employees
SET salary = salary + 1000
WHERE department = 'HR';
```

5. Can we insert partial values?

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Yes, if other columns have `DEFAULT` or allow `NULL`.

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Example:

```
INSERT INTO students (name) VALUES ('John');
```

6. What happens if a NOT NULL field is left empty?

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It throws an **error**. You **must** provide a value.

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Example Error: Column 'email' cannot be null

7. How do you rollback a deletion?

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Use **transactions** with `ROLLBACK`.

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Example:

```
START TRANSACTION;
DELETE FROM orders WHERE id = 10;
ROLLBACK; -- undoes the delete
```

8. Can we insert values into specific columns only?

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Yes, just specify the column names.

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Example:

```
INSERT INTO users (name, email) VALUES ('Alex', 'alex@mail.com');
```

9. How to insert values using SELECT?

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Use `INSERT INTO ... SELECT` syntax.

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Example:

```
INSERT INTO archive_orders (id, amount)
SELECT id, amount FROM orders WHERE status = 'completed';
```

10. What is ON DELETE CASCADE?

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A foreign key constraint that automatically deletes child records when the parent is deleted.

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Example:

```
FOREIGN KEY (user_id) REFERENCES users(id) ON DELETE CASCADE
```
