

## Summary – Day 4

# SQL

### CASE:

- MySQL CASE expression is a control flow structure that allows you to add if-else logic to a query. Generally speaking, you can use the CASE expression anywhere that allows a valid expression e.g., SELECT, WHERE and ORDER BY clauses.
- The CASE expression has two forms: simple CASE and searched CASE.

### Simple case syntax:

- In this syntax, CASE matches the value with the value1, value2, etc., for equality and return the corresponding result1, result2,... If the value does not equal to any value1, value2, ... CASE returns the result in the ELSE clause if the ELSE clause is specified.

```
CASE value
  WHEN value1 THEN result1
  WHEN value2 THEN result2
  ...
  [ELSE else_result]
END
```

### Searched CASE syntax:

- In this syntax, the CASE evaluates expressions specified in the WHEN clauses. If an expression evaluates to true. CASE returns the corresponding result in the THEN clause. Otherwise, it returns the result specified in the ELSE clause. In case the ELSE clause is not available, then the CASE expression returns NULL .

```
CASE
  WHEN expression1 THEN result1
  WHEN expression2 THEN result2
  ...
  [ELSE else_result]
END
```

### IFNULL:

- MySQL IFNULL function is one of the MySQL control flow functions that accepts two arguments and returns the first argument if it is not NULL. Otherwise, the IFNULL function returns the second argument.
- The two arguments can be literal values or expressions.

- Syntax:

```
IFNULL(expression_1,expression_2);
```

- The IFNULL function returns expression\_1 if expression\_1 is not NULL ; otherwise, it returns expression\_2. The
  - The IFNULL function returns a string or a numeric based on the context where it is used.
- ✓ IFNULL(1,0) returns 1 because 1 is not NULL .
  - ✓ IFNULL(' ',1) returns ' ' because the ' ' string is not NULL .
  - ✓ IFNULL(NULL,'IFNULL function') returns IFNULL function string because the first argument is NULL.

### COALESCE:

- The COALESCE function takes a number of arguments and returns the first non-NULL argument. In case all arguments are NULL, the COALESCE function returns NULL.
- Syntax:

```
COALESCE(value1,value2,...);
```

```
SELECT COALESCE(NULL, 0); -- 0
SELECT COALESCE(NULL, NULL); -- NULL;
```

- The IFNULL function takes two arguments and returns the first argument if it is not NULL, otherwise, it returns the second argument.
- The IFNULL function works great with two arguments whereas the COALESCE function works with n arguments. In case the number of arguments is two, both functions are the same.