Day 29
FLOOR() and CEIL() in MySQL

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FLOOR()

- **FLOOR()** function in MySQL is used to return the largest integer value which will be either equal to or less than from a given input number.

General Syntax :

```
FLOOR(X)
```

Parameter	:	Required
X	:	A number whose floor value we want to calculate.
Returns	:	It returns the closest integer which is <=X. So, if X is integer than it will return X. Otherwise, largest integer which is lesser than X.

Use case example :

FLOOR value of a numeric column in a table.

Table - Number

X
90.55
0
-2
-45.76
0.25

Query:

```
SELECT
    X, FLOOR(X) AS floor_X
FROM Number;
```

Output:

X	floor_X
90.55	90
0	0
-2	-2
-45.76	-46
0.25	0

CEIL()

- **CEIL()** function in MySQL is used to return the smallest integer value which is either greater than or equal to the given input number.

General Syntax :

```
CEIL(X)
```

Parameter : Required

X : A number whose ceiling value we want to calculate.

Returns : It returns the closest integer which is >=X. So, if X is integer than it will return X. Otherwise, next integer which is greater than X.

Use case example :

CEIL value of a numeric column in a table.

Table - Number

X
8.5
1
0
-1
-1.5

Query:

```sql
SELECT
    X, CEIL(X) AS ceil_X
FROM Number;
```

Output:

X	ceil_X
8.5	9
1	1
0	0
-1	-1
-1.5	-1