INSTR() Function

This function in MySQL is used to return the location of the first occurrence of a substring within a given string.

Syntax :

INSTR(string_1, string_2)

Parameters :

This function accepts 2 parameters.

- **string_1 –**

  The string where searching takes place.

- **string_2 –**

  The string/substring which will be searched in string_1.

Returns : It returns the position of the first occurrence of a substring within a given string.

Let us understand INSTR() by taking employee table below

emp_id	first_name	last_name	email	hire_date	salary	dept_id
1	kelly	davis	davis@gmail.com	2021-01-22	78000	80
2	tom	taylor	tom@gmail.com	2020-09-22	84200	70
3	mike	whalen	mike@gmail.com	2021-06-30	98200	50
4	andy	lumb	andy@gmail.com	2021-02-27	42200	80
5	anjel	nair	anj@gmail.com	2019-09-26	42200	40
6	ram	kumar	ram@gmail.com	2018-12-26	64200	40

7	rohan	sharma	ro@gmail.com	2021-02-09	84200	20
8	john	king	jo__%%$@gmail.com	2021-02-09	124200	20

1. Write a query to display the position of character ‘N’ in all firstname

```
SELECT
    first_name, INSTR(first_name, 'n')
FROM
    employee;
```

Output:

first_name	INSTR(first_name, ‘n’)
kelly	0
Tom	0
mike	0
andy	2
anjel	2
ram	0
rohan	5
john	4

As you can see from the above output if the substring that you are searching for is not present in the given string that time it will return you 0

2. Query the position of **'easy' in 'mysqliseasy'**

```
SELECT INSTR('MYSQLISEASY', 'EASY');
```

Output:

INSTR('MYSQLISEASY', 'EASY')
8

3. Display the first name of all the employees that contains 'n' in it without using LIKE operator

```
SELECT
   first_name
FROM
   employee
WHERE
INSTR(first_name, 'n');
```

Output:

first_name
andy
anjel

rohan
john

4. Query the number of occurrences of character ‘N’ in the first name that contains ‘n’ in it

   There is no function which will give the number of occurrences of n directly. To get that you can make use of length and replace function. Using length function get the length of the string, using replace replace all occurrences of n. Now subtract total length of the string with the string after removing n in it

```
SELECT
  first_name,
LENGTH(first_name) - LENGTH(REPLACE(first_name, 'n',''))
as ln
FROM
  employee
WHERE
INSTR(first_name, 'n');
```

Output:

first_name	ln
andy	1

anjel	1
rohan	1
john	1

5. Query the number of occurrences of character ‘A’ in the first name that contains ‘A’ in it

```
SELECT
  first_name,
LENGTH(first_name) - LENGTH(REPLACE(first_name, 'a',''))
as ln
FROM
  employee
WHERE INSTR(first_name, 'a');
```

Output:

first_name	**ln**
andy	1
anjel	1
ram	1
rohan	1

Here in this you can avoid cases by converting it to lowercase or uppercase as well

6. Query the first name of employee that contain at least two occurrences of ‘l’

```
SELECT
   first_name
FROM
   employee
WHERE (LENGTH(first_name) - LENGTH(REPLACE(first_name,
'l','''))) >= 2;
```

Output:

first_name
kelly