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CSD-310

Assignment 5-2

To explore some of the powerful functions available in MySQL, let's experiment with three commonly used functions: CONCAT(), DATE\_FORMAT(), and ROUND(). Each function serves a unique purpose and can be useful in various scenarios.

**1. CONCAT()**

**Explanation**: The CONCAT() function concatenates two or more strings into one. This is particularly useful when you combine fields such as a first and last name into a single full name.

**SQL Statement and Alias**:

SELECT CONCAT(first\_name, ' ', last\_name) AS full\_name FROM employees;

**When to Use**: Use CONCAT() when you need to merge multiple columns into a single string output, making the data easier to read and more compact.

**Example Execution**:

SELECT CONCAT(first\_name, ' ', last\_name) AS full\_name

FROM employees;

**2. DATE\_FORMAT()**

**Explanation**: The DATE\_FORMAT() function formats a date as specified. This is useful for presenting dates in a more readable format or converting them to a specific format needed for reports or user interfaces.

**SQL Statement and Alias**:

SELECT hire\_date, DATE\_FORMAT(hire\_date, '%M %d, %Y') AS formatted\_hire\_date FROM employees;

**When to Use**: Use DATE\_FORMAT() when you need to display dates in a human-readable format, such as converting '2023-06-23' to 'June 23, 2023'.

**Example Execution**:

SELECT hire\_date, DATE\_FORMAT(hire\_date, '%M %d, %Y') AS formatted\_hire\_date

FROM employees;

**3. ROUND()**

**Explanation**: The ROUND() function is used to round a numeric value to a specified number of decimal places. This is particularly useful in financial calculations where precision to a certain number of decimal places is required.

**SQL Statement and Alias**:

SELECT salary, ROUND(salary, 2) AS rounded\_salary

FROM employees;

**When to Use**: Use ROUND() when you need to round numbers for financial reports or when working with data where precision is necessary but only to a certain extent.

**Example Execution**:

SELECT salary, ROUND(salary, 2) AS rounded\_salary

FROM employees;

**Summary**

* **CONCAT()** is used for concatenating strings, such as merging first and last names into a full name.
* **DATE\_FORMAT()** is used for converting dates into a specified format, making them more readable.
* **ROUND()** is used to round numeric values to a specified number of decimal places, essential for financial data.

These functions enhance the utility and readability of data in MySQL, providing more control over how data is presented and utilized in various applications.

***Create a Demo database with a table naming employees to run those functions:***

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1. ***Concat():***

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1. **DATE\_FORMAT():**

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1. **ROUND():**

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