

Lecture Notes – String Functions-Trimming&Padding

Section 1: Lecture Summary

The lecture covers MySQL string functions for trimming and padding, including `LTRIM`, `RTRIM`, `TRIM`, `LPAD`, `RPAD`, and `REPEAT`. These functions remove extra spaces from strings or format them by adding characters, useful for cleaning data from external sources or creating formatted output. A practical example demonstrates formatting `CustomerID` from the `Customers` table as five-digit numbers using `LPAD` with zeros.

Section 2: Key Concepts and Explanations

`Trimming functions` remove unwanted spaces:

- `LTRIM` removes leading spaces from the left side, leaving trailing spaces intact.
- `RTRIM` removes trailing spaces from the right side, leaving leading spaces intact.
- `TRIM` removes spaces from both leading and trailing sides.

These are essential when handling input from external sources to avoid extra spaces affecting queries or inserts.

`Padding functions` adjust string length by adding characters:

- `LPAD(string, length, pad_string)` pads on the left to reach the specified length (e.g., `LPAD('1500', 10, '*')` adds stars to make it 10 characters).
- `RPAD` pads on the right similarly.

If the original string exceeds the length, it remains unchanged.

`REPEAT(string, count)` repeats a string a specified number of times, useful for formatting output or creating separators.

Section 3: Example Code and Use Cases

The lecture provides a query to format **CustomerID** as five-digit numbers in **eCommerceDB**:

```
USE eCommerceDB;
SELECT LPAD(CustomerID, 5, '0') AS FormattedCustomerID,
       FirstName
FROM Customers
ORDER BY CustomerID;
```

This converts CustomerID values like 1 to '00001', 15 to '00015', filling leading positions with zeros for consistent display.

Section 4: Key Takeaways

Trim functions (**LTRIM**, **RTRIM**, **TRIM**) clean leading/trailing spaces from strings, especially external data. Padding functions (**LPAD**, **RPAD**) and **REPEAT** format output for readability. Always select the target database (e.g., **eCommerceDB**) before running queries. Practice formatting numeric IDs as fixed-length strings using **LPAD** with '0'.