**📘 MySQL – STRING FUNCTIONS (Book Format Notes)**

**🧾 Step 1: Create Sample Table**

CREATE TABLE users (

id INT,

name VARCHAR(50),

email VARCHAR(100)

);

**🧾 Step 2: Insert Sample Data**

INSERT INTO users (id, name, email) VALUES

(1, 'Ankit', 'ankit@example.com'),

(2, 'Riya', 'RIYA@EXAMPLE.COM'),

(3, 'Aman', 'aman@sql.com'),

(4, 'Sneha', 'sneha@Example.com'),

(5, 'rohit', 'rohit@data.com');

**📊 Data in users Table:**

| **id** | **name** | **email** |
| --- | --- | --- |
| 1 | Ankit | [ankit@example.com](mailto:ankit@example.com) |
| 2 | Riya | [RIYA@EXAMPLE.COM](mailto:RIYA@EXAMPLE.COM) |
| 3 | Aman | [aman@sql.com](mailto:aman@sql.com) |
| 4 | Sneha | [sneha@Example.com](mailto:sneha@Example.com) |
| 5 | rohit | [rohit@data.com](mailto:rohit@data.com) |

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**✅ 1. LENGTH() – Length of string**

SELECT name, LENGTH(name) AS name\_length FROM users;

👉 Name ke characters count karega, space bhi count hoti hai.  
👉 Har name ka length milega.

📤 Output:

| **name** | **name\_length** |
| --- | --- |
| Ankit | 5 |
| Riya | 4 |
| Aman | 4 |
| Sneha | 5 |
| rohit | 5 |

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**✅ 2. LOWER() – Convert to lowercase**

SELECT email, LOWER(email) AS lower\_email FROM users;

👉 Email ko lowercase me convert karta hai.  
👉 Useful in case-insensitive comparison ke liye.

📤 Output:

| **email** | **lower\_email** |
| --- | --- |
| [ankit@example.com](mailto:ankit@example.com) | [ankit@example.com](mailto:ankit@example.com) |
| [RIYA@EXAMPLE.COM](mailto:RIYA@EXAMPLE.COM) | [riya@example.com](mailto:riya@example.com) |
| [aman@sql.com](mailto:aman@sql.com) | [aman@sql.com](mailto:aman@sql.com) |
| [sneha@Example.com](mailto:sneha@Example.com) | [sneha@example.com](mailto:sneha@example.com) |
| [rohit@data.com](mailto:rohit@data.com) | [rohit@data.com](mailto:rohit@data.com) |

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**✅ 3. UPPER() – Convert to uppercase**

SELECT name, UPPER(name) AS upper\_name FROM users;

👉 Sabhi characters ko capital letters me convert karega.  
👉 Mostly formatting ke kaam aata hai.

📤 Output:

| **name** | **upper\_name** |
| --- | --- |
| Ankit | ANKIT |
| Riya | RIYA |
| Aman | AMAN |
| Sneha | SNEHA |
| rohit | ROHIT |

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**✅ 4. SUBSTRING() – Part of a string**

SELECT email, SUBSTRING(email, 1, 5) AS short\_email FROM users;

👉 Email ka pehla 5 characters return karega.  
👉 Syntax: SUBSTRING(str, start\_pos, length)

📤 Output:

| **email** | **short\_email** |
| --- | --- |
| [ankit@example.com](mailto:ankit@example.com) | ankit |
| [RIYA@EXAMPLE.COM](mailto:RIYA@EXAMPLE.COM) | RIYA@ |
| [aman@sql.com](mailto:aman@sql.com) | aman@ |
| [sneha@Example.com](mailto:sneha@Example.com) | sneha |
| [rohit@data.com](mailto:rohit@data.com) | rohit |

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**✅ 5. CONCAT() – Join strings**

SELECT CONCAT(name, ' - ', email) AS info FROM users;

👉 Name aur email ko join karta hai - ke sath.  
👉 Multiple strings ko combine karne ke liye use hota hai.

📤 Output:

| **info** |
| --- |
| Ankit - [ankit@example.com](mailto:ankit@example.com) |
| Riya - [RIYA@EXAMPLE.COM](mailto:RIYA@EXAMPLE.COM) |
| Aman - [aman@sql.com](mailto:aman@sql.com) |
| Sneha - [sneha@Example.com](mailto:sneha@Example.com) |
| rohit - [rohit@data.com](mailto:rohit@data.com) |

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**✅ 6. REPLACE() – Replace part of string**

SELECT email, REPLACE(email, 'example', 'gmail') AS new\_email FROM users;

👉 example ko gmail se replace karega email column me.  
👉 Word ya pattern ko change karne ke liye kaam aata hai.

📤 Output:

| **email** | **new\_email** |
| --- | --- |
| [ankit@example.com](mailto:ankit@example.com) | [ankit@gmail.com](mailto:ankit@gmail.com) |
| [RIYA@EXAMPLE.COM](mailto:RIYA@EXAMPLE.COM) | [RIYA@EXAMPLE.COM](mailto:RIYA@EXAMPLE.COM) |
| [aman@sql.com](mailto:aman@sql.com) | [aman@sql.com](mailto:aman@sql.com) |
| [sneha@Example.com](mailto:sneha@Example.com) | [sneha@Example.com](mailto:sneha@Example.com) |
| [rohit@data.com](mailto:rohit@data.com) | [rohit@data.com](mailto:rohit@data.com) |

⚠ Replace case-sensitive hota hai. Isliye kuch rows unchanged hain.

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**✅ 7. TRIM() – Remove spaces**

SELECT TRIM(' Hello SQL ') AS trimmed;

👉 String ke aage/peechhe ke extra spaces hata deta hai.  
👉 Formatting me useful hota hai.

📤 Output:

| **trimmed** |
| --- |
| Hello SQL |

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**✅ 8. INSTR() – Position of substring**

SELECT email, INSTR(email, '@') AS at\_pos FROM users;

👉 @ symbol kis position pe hai string me, wo batata hai.  
👉 Agar symbol nahi mila to 0 return karta hai.

📤 Output:

| **email** | **at\_pos** |
| --- | --- |
| [ankit@example.com](mailto:ankit@example.com) | 6 |
| [RIYA@EXAMPLE.COM](mailto:RIYA@EXAMPLE.COM) | 5 |
| [aman@sql.com](mailto:aman@sql.com) | 5 |
| [sneha@Example.com](mailto:sneha@Example.com) | 6 |
| [rohit@data.com](mailto:rohit@data.com) | 6 |

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**✅ 9. REVERSE() – Reverse string**

SELECT name, REVERSE(name) AS rev\_name FROM users;

👉 Name ko ulta (reverse) kar ke dikhata hai.  
👉 Fun/logic based query ke kaam aata hai.

📤 Output:

| **name** | **rev\_name** |
| --- | --- |
| Ankit | tiknA |
| Riya | ayiR |
| Aman | namA |
| Sneha | ahenS |
| rohit | tihor |

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**✅ Summary – Useful String Functions in MySQL**

| **Function** | **Use** |
| --- | --- |
| LENGTH() | Count characters in string |
| LOWER() | Convert to lowercase |
| UPPER() | Convert to uppercase |
| SUBSTRING() | Extract part of string |
| CONCAT() | Join multiple strings |
| REPLACE() | Replace part of string |
| TRIM() | Remove leading/trailing spaces |
| INSTR() | Find position of substring |
| REVERSE() | Reverse string |

chapter complete! 💯