

```
INSERT INTO t1 VALUES ROW('{"id": "123", "name": "shoes", "price": "49.95"}');
```

A query using this expression, such as that shown here, can make use of the index:

```
SELECT name, price FROM t1
WHERE JSON_VALUE(j, '$.id' RETURNING UNSIGNED) = 123;
```

In many cases, this is simpler than creating a generated column from the `JSON` column and then creating an index on the generated column.

For more information and examples, see the description of `JSON_VALUE()`.

- **User comments and user attributes.** MySQL 8.0.21 introduces the ability to set user comments and user attributes when creating or updating user accounts. A user comment consists of arbitrary text passed as the argument to a `COMMENT` clause used with a `CREATE USER` or `ALTER USER` statement. A user attribute consists of data in the form of a JSON object passed as the argument to an `ATTRIBUTE` clause used with either of these two statements. The attribute can contain any valid key-value pairs in JSON object notation. Only one of `COMMENT` or `ATTRIBUTE` can be used in a single `CREATE USER` or `ALTER USER` statement.

User comments and user attributes are stored together internally as a JSON object, the comment text as the value of an element having `comment` as its key. This information can be retrieved from the `ATTRIBUTE` column of the `INFORMATION_SCHEMA.USER_ATTRIBUTES` table; since it is in JSON format, you can use MySQL's JSON function and operators to parse its contents (see [Section 12.18, “JSON Functions”](#)). Successive changes to the user attribute are merged with its current value as when using the `JSON_MERGE_PATCH()` function.

Example:

```
mysql> CREATE USER 'mary'@'localhost' COMMENT 'This is Mary Smith's account';
Query OK, 0 rows affected (0.33 sec)

mysql> ALTER USER 'mary'@'localhost'
->     ATTRIBUTE '{"fname": "Mary", "lname": "Smith"}';
Query OK, 0 rows affected (0.14 sec)

mysql> ALTER USER 'mary'@'localhost'
->     ATTRIBUTE '{"email": "mary.smith@example.com"}';
Query OK, 0 rows affected (0.12 sec)

mysql> SELECT
->     USER,
->     HOST,
->     ATTRIBUTE->>"$.fname" AS 'First Name',
->     ATTRIBUTE->>"$.lname" AS 'Last Name',
->     ATTRIBUTE->>"$.email" AS 'Email',
->     ATTRIBUTE->>"$.comment" AS 'Comment'
-> FROM INFORMATION_SCHEMA.USER_ATTRIBUTES
-> WHERE USER='mary' AND HOST='localhost'\G
***** 1. row *****
USER: mary
HOST: localhost
First Name: Mary
Last Name: Smith
Email: mary.smith@example.com
Comment: This is Mary Smith's account
1 row in set (0.00 sec)
```

For more information and examples, see [Section 13.7.1.3, “CREATE USER Statement”](#), [Section 13.7.1.1, “ALTER USER Statement”](#), and [Section 25.46, “The INFORMATION_SCHEMA.USER_ATTRIBUTES Table”](#).