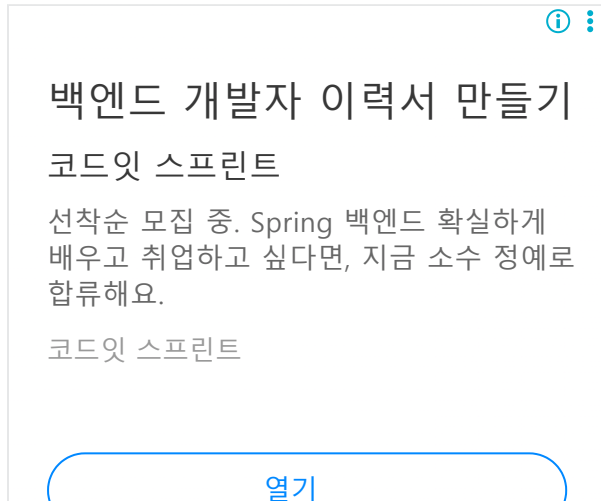


# MySQL VARBINARY Data Type



**Summary:** in this tutorial, you will learn how to use the MySQL `VARBINARY` data type to store variable-length binary data.

## Introduction to MySQL VARBINARY data type

The `VARBINARY` data type is used to store variable-length binary data. It is similar to the [BINARY](#) data type but allows you to store **binary data of variable length**.

The following shows how to define a `VARBINARY` column in a table:

```
column_name VARBINARY(max_length)
```

In this syntax, we define the `column_name` with the `VARBINARY` data type that can store up to `max_length` bytes. The maximum value for the `max_length` is 65,535 bytes, which is equivalent to 64KB .

In practice, you often use the `VARBINARY` data type for storing variable binary data such as small images, audio files, and other non-textual data.

Unlike the [BINARY](#) data type, [When you insert](#) data into a `VARBINARY` column, MySQL does not pad zero bytes ( `0x00` ) if the length of the data is not equal to the `max_length` of the column.

Additionally, MySQL will not strip any bytes when you retrieve data from a `VARBINARY` column.

If you sort `VARBINARY` data, MySQL treats zero bytes (0x00) and space differently in sorting operations such as `ORDER BY` and `DISTINCT`. It places the zero bytes (0x00) before the space.

When you insert data whose length exceeds the `max_length`, MySQL drops extra bytes and issues a warning if SQL strict mode is not enabled and an error if the SQL strict mode is enabled.

## MySQL VARBINARY data type example

We'll take an example of using the `VARBINARY` data type to define a column that stores data.

First, [create a new table](#) called `varbinary_demo`:

```
CREATE TABLE varbinary_demo(  
  id INT AUTO_INCREMENT PRIMARY KEY,  
  data VARBINARY(256)  
);
```

The table `varbinary_demo` has two columns:

- id: [Auto-incremented primary key](#) column.
- data: `VARBINARY` data column.

Second, [insert a new row](#) into the `varbinary_demo` table:

```
INSERT INTO varbinary_demo(data)  
VALUES('Hello');
```

Third, select data from the `varbinary_demo` table:

```
SELECT * FROM varbinary_demo;
```

Output:

```
+-----+  
| id | data      |  
+-----+
```

```
| 1 | 0x48656C6C6F |  
+-----+  
1 row in set (0.00 sec)
```

## Summary

- Use MySQL `VARBINARY` data type to define a column that can store variable binary data.

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