

# CAST function in SQL Server

The CAST function in SQL Server converts an expression from one data type to another.

This article will show you in detail how to use the CAST data type conversion function in SQL Server with specific syntax and examples to better visualize and capture functions.

## Describe

**The CAST function** in SQL Server converts an expression from one data type to another. If the conversion fails, CAST will report an error, otherwise it will return the corresponding conversion value.

## Syntax

To use the CAST function in SQL Server, we use the following syntax:

```
CAST(bieuthuc AS kieudulieu [(do_dai)])
```

### Parameters :

1. *bieuthuc*: value to convert to another data type, can also be the name of a column in the table or a calculation expression that needs to be converted to a new data type.
2. *kieudulieu*: the new data type name to which the expression will be converted. Probably one of the following: *bigint*, *int*, *smallint*, *tinyint*, *bit*, *decimal*, *numeric*, *money*, *smallmoney*, *float*, *real*, *datetime*, *smalldatetime*, *char*, *varchar*, *text*, *nchar*, *nvarchar*, *ntext*, *binary*, *varbinary* or *image*.
3. *do\_dai* (optional): data type length for the result of *char*, *varchar*, *nchar*, *nvarchar*, *binary* and *varbinary*.

### Note :

1. When converting *float* data or *numeric* to *int* integers , the cast function will cut the decimal part behind.
2. See also the functions CONVERT, TRY\_CAST and TRY\_CONVERT.
3. CAST can be used in later versions of SQL Server: SQL Server 2017, SQL Server 2016, SQL Server 2014, SQL Server 2012, SQL Server 2008 R2, SQL Server 2008, and SQL Server 2005.

## For example

Take a look and explore some examples of CAST functions in SQL Server.

```
SELECT CAST(14.85 AS int);  
Result: 14 (k?t qu? c?t ph?n th?p phân phía sau)
```

```
SELECT CAST(14.85 AS float);  
Result: 14.85
```

```
SELECT CAST(15.6 AS varchar);  
Result: '15.6'
```

```
SELECT CAST(15.6 AS varchar(4));  
Result: '15.6'
```

```
SELECT CAST('15.6' AS float);  
Result: 15.6
```

```
SELECT CAST('2019-05-02' AS datetime);  
Result: '2019-05-02 00:00:00.000'
```

Last lesson: [SQL YEAR function](#)

Next lesson: [CONVERT function in SQL Server](#)

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