

Data type conversion in Java

In Java, type conversion refers to the process of converting a value from one data type to another.

There are two types of type conversion in Java: implicit (automatic) conversion and explicit (manual) conversion.

Implicit Type Conversion (Widening):

Java automatically converts a lower data type to a higher data type without any explicit instruction from the programmer.

This is also known as **widening** conversion because the data type "widens" to accommodate the larger type.

For example, converting an int to a double:

```
int intValue = 42;
double doubleValue = intValue; // Implicit conversion
```

Explicit Type Conversion (Narrowing):

Sometimes, you need to manually convert a higher data type to a lower data type. This is called explicit type conversion or narrowing conversion.

This process requires the use of casting, where you specify the target data type in parentheses before the variable.

For example, converting a double to an int:

```
double doubleValue = 3.14;
int intValue = (int) doubleValue; // Explicit conversion
```