Type Conversion and Coercion

Explicit type conversion: Routines to change from data type to another.

Example:

Pascal: the function 'round' - Converts a real type to integer.
C: `eg (int)x, for float x converts the value of x to type integer.`

Coercion: Implicit type of conversion, performed by the system.

Pascal: + integers and real, integer is converted to real.
Java: Permits implicit coercions if the operation is widening.
C++: explicit cast must be given (`int short -> long int`)

Two opposite approaches to type coercion:

→ **No Coercion** if any type mismatch is considered an error. (Pascal, Ada).

→ Coercion case the rule: Only if no conversion is possible, error is reported.
Advantages of Coercion:

It basically free the programmer from the low level concerns up to some level, as adding two different data types i.e. Real & Int.

Disadvantage

As programmer concern to some level is reduced which may be that it hides some serious errors which will not be easy to point out.