Day-2.2

Agenda

Operators
Type Casting
Array

Operators

Bit-wise Operators [& , | , ^]

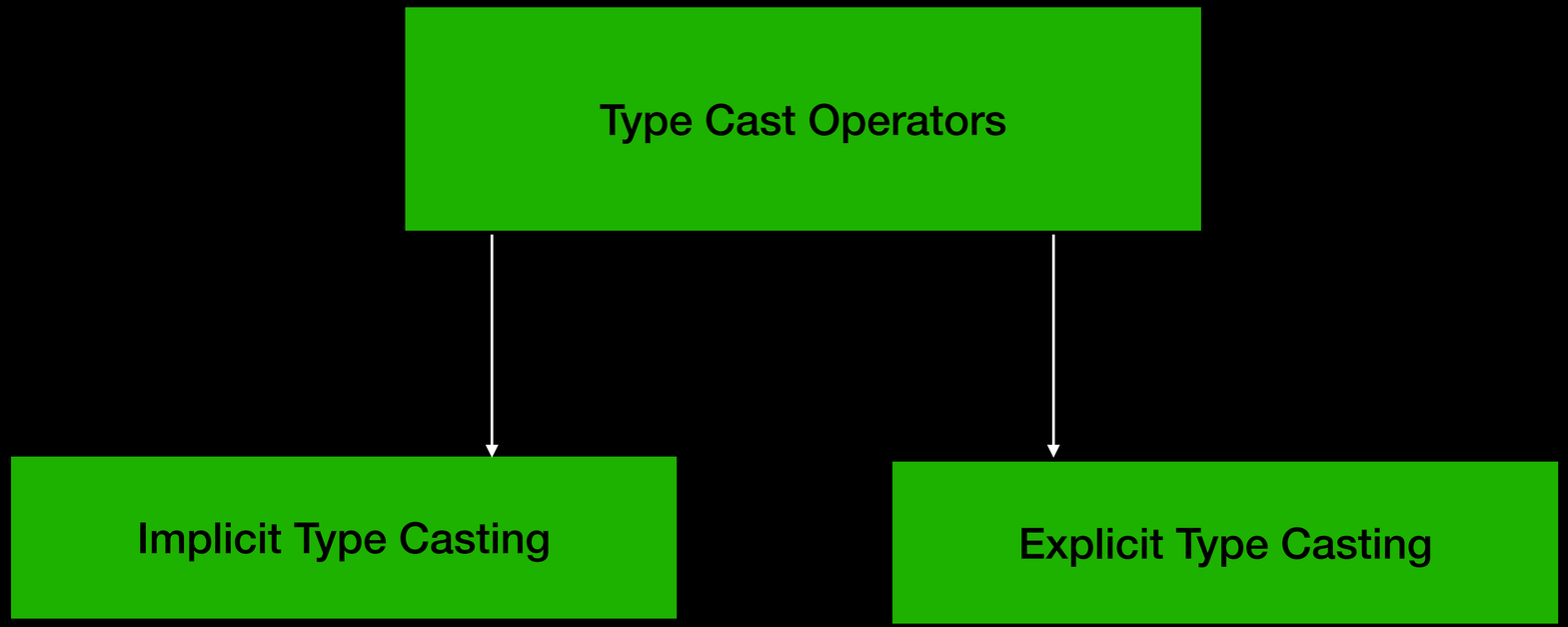
Operator	Meaning	Definition
&	AND	If both operands are True then result is True
|	OR	If at least 1 operand is True then result is True
^	X-OR	If both operands are different then result is true

A	B	A & b
0	0	0
0	1	0
1	0	0
1	1	1

A	B	A | b
0	0	0
0	1	1
1	0	1
1	1	1

A	B	A ^ b
0	0	0
0	1	1
1	0	1
1	1	0

Type Casting



Type Casting

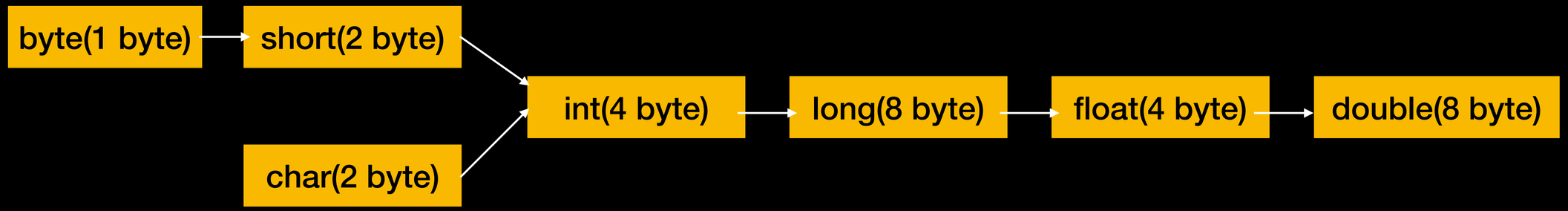
Implicit Type Casting

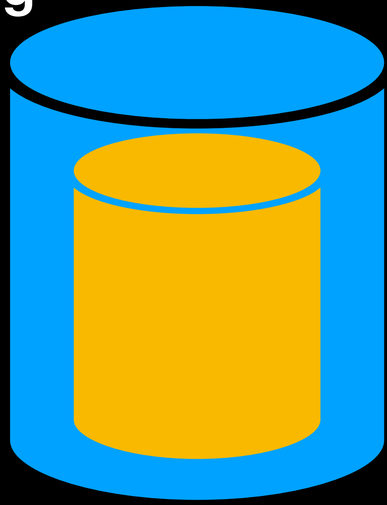
Compiler is the responsible to perform this type casting .

This typecasting is required when ever we are assigning smaller data types value to bigger

To the bigger data type variables.

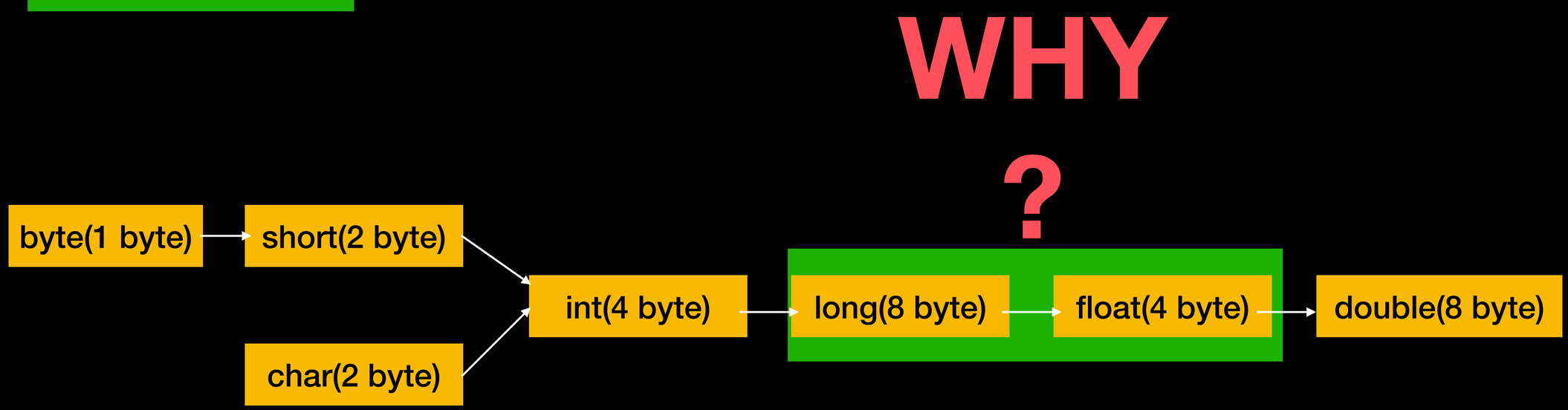
It is also known as “up-casting ” No loss of information in this type casting





Type Casting

Implicit Type Casting

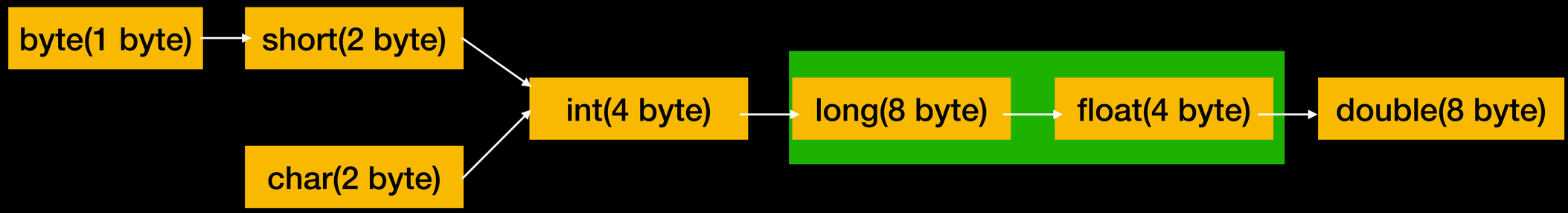


Type Casting

Implicit Type Casting

Although long use more bytes , but it has a smaller rang , max size is 2^63

Where as float can got up to 2^127



Type Casting

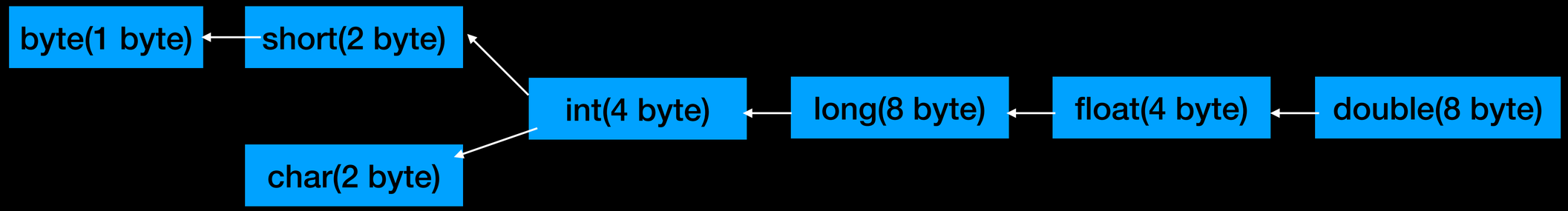
Explicit Type Casting

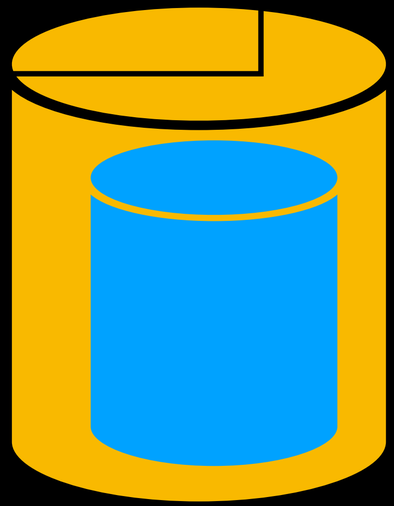
Programmer is responsible to perform the type casting

This typecasting is required when ever we are assigning bigger data types value to the smaller data type variables.

It is also known as “down-casting ”

There may be a chance of loss of information in this type casting





Array

An array in an indexed collection of fixed no of homogeneous data element

The main advantage of array is we can represent multiple values under the same name.

But the main limitations of array is once we can create an array there is no chance

Of increasing/decreasing size based on our requirements .

Types of Array

- Single Dimension Array
- Double Dimensions Array or 2D Array
- Triple Dimensions Array or 3D Array

Array Deceleration

Single Dimension Array

1. int[ ] a;
2. int a [ ];
3. int [ ]a;

Double Dimensions Array or 2D Array

1. int[ ] [ ] a;
2. int [ ] [ ] a;
3. int a[ ] [ ] ;
4. int[ ] a[ ] ;
5. int[ ] [ ]a ;
6. int [ ]a [ ] ;

Triple Dimensions Array or 3D Array

1. int[ ] [ ] [ ] a;
2. int a[ ] [ ] [ ];
3. int [ ][ ][ ] a;
4. int[ ] [ ][ ]a ;
5. int[ ] a[ ] [ ] ;
6. int[ ] [ ] a [ ] ;
7. int[ ] [ ] [ ] a;
8. int[ ] [ ] a[ ];
9. int [ ] [ ]a[ ];
10. int [ ] a [ ][ ];