Day 19 concepts

M T W T F S S
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Assignment operators :-= (Binary operator)

It is a binary operator, which is used to store the value inside the variable.

Syntax:

variable name = value/expression
LHS RHS.

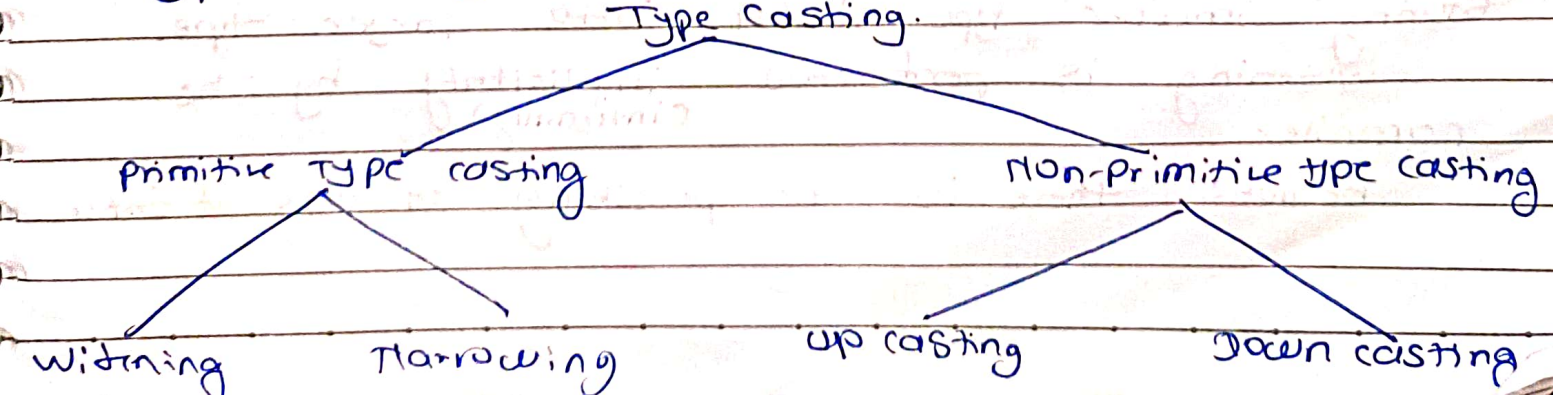
- LHS of an assignment operator must be a variable.

#Rule 1
- The RHS can be a value or expression.
- we cannot assign value to a value.
  Eg = 10=10 is wrong.

Rule 2: The type of value & type of variable must be same.
The associativity (Direction of Execution) of assignment operator is from right to left
Eg:
① char ch = true; //wrong.
② char ch = 'a'; //right.

Rule 3: If the type of value is not same as type of variable. Then are two possibilities:
① Typecasting:

Typecasting:



It is the process of converting/storing one type into another type.

Type casting is of two types:

(I) primitive Type casting
(II) Non-primitive Type casting.

Primitive Type casting:

It is a process of converting / storing one type of primitive into another primitive type.

They are of two types:

(I) Widening
(II) Narrowing

Non-Primitive Type casting:

It is a process of converting / store one type of non-primitive data into another non-primitive type.

They are two types:

(I) Upcasting.
(II) Downcasting.

Widening :→

Widening is a process of converting or storing smaller type data into larger type.

Widening is performed implicitaly (intrinally) by the compiler.

Because there is no possibility of loss of data.

① Byte Widening:

```
byte a = 10;
short b = a;    // 10
int c = a;      // 10
char d = a;     // CTE
long e = a;     // 10
float f = a;    // 10.0
double g = a;   // 10.0
boolean h = a;  // CTE
```

② Short Widening:

```
Short a = 10;
Short b = a;    // 10
int c = a;      // 10
char d = a;     // CTE
long e = a;     // 10
float f = a;    // 10.0
double g = a;   // 10.0
boolean h = a;  // CTE
```

③ int widening :→

```
int a = 10;
long
char d = a;     // CTE
long e = a;     // 10
float f = a;    // 10.0
double g = a;   // 10.0
boolean h = a;  // CTE
```

(IV) Long Widening:

```
long a = 10;
float f = a;   // 10.0
double g = a;  // 10.0
boolean h = a; // CTE
```

(V) Float Widening:

```
float a = 10.0F;
double b = a;   // 10.0.
```

(VI) Double widening:

```
double d = 10.0;
double a = d;   // 10.0;
```