C++ Programming

Assignment Operator

Mostafa S. Ibrahim
Teaching, Training and Coaching since more than a decade!

Artificial Intelligence & Computer Vision Researcher
PhD from Simon Fraser University - Canada
Bachelor / Msc from Cairo University - Egypt
Ex-(Software Engineer / ICPC World Finalist)

Assignment operator =

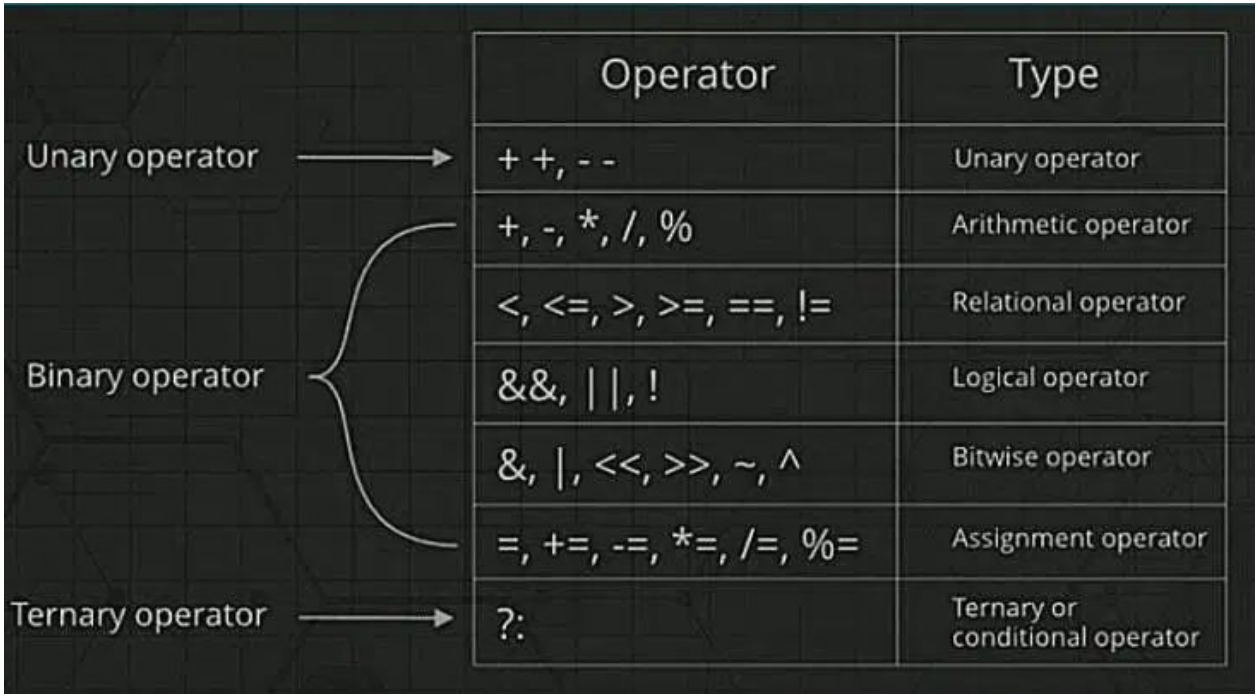
- We met this operator a lot.
- Int x = 2 * y + 1;
  - Lhs = Rhs (left hand side = right hand side)
  - Rhs is an expression (12, 10+2, 2 * y + 1, etc)
  - It is evaluated, then assigned to lhs
  - RHS here is a number, so assignable as int. If it is e.g. string, CE (compiler error)
- We can assign several variables
  - x = 2*y, y = 10+2, z = x + y
  - , here is the comma operator
    - evaluates from **left to right**, return the **last after-comma** result
    - cout<<(10, x=1, y=3+1, x = x+2*y+1**, 40**); ⇒ 40

Assignment operators: += -= *= /=

```
4  int main() {
5      int num = 5;
6
7      num = num + 1;
8      cout<<"num1 "<<num<<"\n";    // 6
9
10     num += 1;    // same as num = num+1
11     cout<<"num1 "<<num<<"\n";    // 7
12
13     num *= 2;    // same as num = num * 2
14     cout<<"num1 "<<num<<"\n";    // 14
15
16     num = num - (-2);
17     cout<<"num1 "<<num<<"\n";    // 16
18
19     num -= 10;   // num = num - 10
20     num /= 2;    // num = num - 2
21
```

- Num = num + 1
  - Compute expression: num+1
  - Set value in num
  - Same as Num += num
- For convenient use
- Aka Compound assignment
  - combine = with a binary operator

Operators: Big Picture



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"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."