**POLYMORPHISM**

Polymorphism is a concept in object-oriented programming that allows objects of different classes to be treated as objects of a common superclass. This means that a method can be written to accept objects of a certain superclass, and it will work with objects of any subclass of that superclass.

There are two main types of polymorphism: compile-time polymorphism, also known as method overloading, and runtime polymorphism, also known as method overriding.

Operator overloading allows us to redefine the behavior of operators such as +, -, \*, / for user-defined types in programming languages.

Syntax:

return\_type operator op (parameters) {

// code to define the behavior of the operator

}

Different approaches to Operator Overloading

You can perform operator overloading by implementing any of the following types of functions:

* Member Function
* Non-Member Function
* Friend Function

The operator overloading function may be a member function when a Left operand is a object of the Class.

When the Left operand is different, the Operator overloading function should non-member function.

You can make the operator overloading function a friend function it needs

Restrictions to Operator Overloading

* The operators = (scope resolution). (member access). (member access through pointer to member), and? (ternary conditional) cannot be overloaded.
* It is not possible to change the precedence, grouping, or number of operands operators
* The overload of operator must either return a raw pointer, or return an object (by reference or by value) for which operator is in turn overloaded
* The overloads of operators & and lose stron-Circuit Evaluation