SUBJECT: OBJECT ORIENTED PROGRAMMING USING C++

Inheritance in C++

Elementrix Classes

Inheritance in C++

The process of obtaining the data members and methods from one class to another class is known as inheritance. It is one of the fundamental features of object-oriented programming.

Important points

- In the inheritance the class which is give data members and methods is known as base or super or parent class.
- The class which is taking the data members and methods is known as sub or derived or child class.

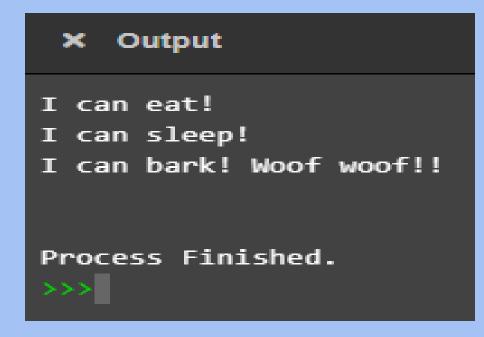
Real Life Example of Inheritance in C++

The real life example of inheritance is child and parents, all the properties of father are inherited by his son.

Example Program:

```
1
 2
 3 # #include <iostream>
 4
    using namespace std;
 5
 6 // base class
 7 • class Animal {
 8
       public:
 9
     void eat() {
10 -
11
             cout << "I can eat!" << endl;</pre>
         }
12
13
14 -
        void sleep() {
             cout << "I can sleep!" << endl;</pre>
15
         }
16
17
    };
18
```

```
19
20 - class Dog : public Animal {
21
22
       void bark() {
23 🔻
             cout << "I can bark! Woof woof!!" << endl;</pre>
24
25
         }
26
    };
27
28 • int main() {
29
        Dog dog1;
30
31
32
33
        dog1.eat();
        dog1.sleep();
34
35
36
37
        dog1.bark();
38
39
         return 0;
40
```



Here, dog1 (the object of derived class Dog) can access members of the base class Animal. It's because Dog is inherited from Animal.



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