The object-oriented programming and function benefits

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To know the object-oriented programming, we must know object first. In my perspective, an object is an entity used to describe objective things in the system. It is a basic unit of the system. An object consists of a set of properties and a set of services that operate on them. From a more abstract point of view, an object is an abstraction of something in the problem domain or implementation domain. It is a wrapper around a set of properties and a set of services that have the authority to operate on them. The objective world is made up of objects and their relations.

And in JAVA, there is a type called class, the class is a method of thinking that human beings often adopt when they understand the objective world to classify and classify various things. The principle of classification is abstraction. A class is a collection of objects that have the same attributes and services. It provides a unified abstract description of all the objects belonging to the class, which includes two main parts, attributes and services. In an object-oriented programming language, a class is a separate program unit, which should have a class name and two main parts, property description and service description. The relationship between classes and objects is like that between molds and castings. The instantiation result of a class is an object, and the abstraction of a class is a class.

Besides this, we must know that there are a thinking corresponding to object orientation is called procedure orientation. Object-oriented and process-oriented thinking has essentially difference, as an object oriented thinking, when you get a problem, you analyze the question no longer is the first step to do, the second step is to do what, this is process oriented thinking, you should analyze the question what are the classes and objects, this is the first point, and then analyze these classes and objects which should have properties and methods. This is the second point. Finally, analyze the specific relationship between classes and classes. This is the third point. Object-oriented design has a very important thinking: the right method should appear in the right class.

Simply, object oriented is the first break in the inside of the program should be pay attention to is no longer step by step process, but first consider in the problem domain or

program should have what object, so from now on, consider any question in mind not to think about what I do I do the first step should be implemented, the second step should be to do, if so, that is geared to the needs of the process of thinking. Object-oriented thinking is, when I encounter this problem domain, when I encounter this program, the first thing I should do is abstract out what objects are in the problem, what relationships are between objects. So Object-oriented design idea? The basic idea of object orientation is to construct a software system from the objective things in the real world and to use the natural way of thinking of human beings in the system construction as much as possible .Object-oriented more emphasis on the use of human logic in daily life often used in the thinking methods and principles, such as abstract, classification, inheritance, aggregation, polymorphic and so on. When people are thinking, the first thing they see in their eyes is one object after another.

As someone may ask, what does object-oriented functionality do? I think this is mainly because object-oriented has three core features: inheritance, encapsulation and polymorphism. Firstly, it is the inheritance, Just as children in life inherit all the property owned by their parents, inheritance in programs means that subclasses have all the characteristics and behaviors of their parents, which is a kind of relationship between classes. I think it really could reduce the amount of code. And second, it is encapsulation. Encapsulation is a programming mechanism that binds together code and the data it processes to ensure that both program and data are free from external interference and misuse. The purpose of encapsulation is to protect information. The main benefits for this is to protect the information in the class, hide details, improve system independence and improve the reuse rate of software. Finally, it is polymorphism. Object-oriented polymorphism, or "one interface, multiple methods". Polymorphism occurs when properties and methods defined in a parent class are subclassed and can have different properties or representations. Polymorphism allows one interface to be used by multiple members of the same class, making up for single inheritance.

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