

Article question

[Technology](#), [Information Technology](#)



ADVANTAGES AND DISADVANTAGES OF OBJECT ORIENTED PROGRAMMING:

In the object oriented programming, the problem is divided into modules. These modules can be coded easily due to their reduced size. A number of programmers can work on the same application at the same time by distributing the modules among themselves. When all the modules are completed they are merged in one program, therefore the object oriented programming is time efficient with respect to coding and testing. Another major advantage of object oriented programming is that the modules written for one program can be reused for other program. The testing and debugging of a object oriented program is very easy because each module can be tested and debugged separately.

One of the major disadvantages of structured programming is redundancy of code. Since the program code is divided into modules therefore, there is a high possibility that the same code can be repeated in different modules. The perceived preference of object oriented languages over the more structural programming languages in industry today is due to some chief attributes of the object oriented programming paradigm. These attributes are encapsulation, information hiding and inheritance. These characteristics make programming easier in this paradigm. The object oriented programming model better reflects the human way of thinking and conceptualizing. The reason is that several objects are made while coding a program. For instance, a class is made on “ person”. Then from this class different objects can be made like student, teacher, employee etc. this is similar to the thinking of mankind.

FIVE KEY OBJECT ORIENTED CONCEPTS:

1. Information Hiding: Through information hiding dependencies among modules is reduced. It means that if in a home two children are given separate rooms and they are restricted to enter in the other's room then each of them are only concerned with their own room and they don't know the things of the other.
2. Encapsulation: It is communication between different things. For example if a person goes to a restaurant and orders rice to waiter. Then there is no communication between the person and cooker but through rice they are linked to each other.
3. Inheritance: The technique of " inheritance" is analogous to the inheritance of biological traits from parent to child in that certain characteristics and physical structures carry from one generation to the next.
4. Polymorphism: It means implementation of same thing in different ways. For example a kid asks his mother for meal. One way to is that mother serves the meal on the table while the other way is to give the meal to the child by mother by her own hands.
5. Abstraction: It means including important characteristics and leaving other details. for instance, if a person gets a job then he has to give his academic information and work experience. There is no need to give details about his parents, grandparents and neighbors.

ADVANTAGES AND DISADVANTAGES OF STRUCTURED PROGRAMMING:

Structured programming is a division of procedural programming and a logical structure is implemented on the coded program. This not only increases the program efficiency but also makes it uncomplicated to test,

debug and modify. Unlike unstructured programming, the program written in structured programming paradigm is much more organized and properly arranged (What is structured Programming, 2002).

One of the major disadvantages of structured programming is information hiding which means that if a variable is used in one logical unit of the program and if the programmer tries to use the same variable again for some other purpose then it can result in wrong outputs (Bright Hub, 2011).

References

Bright Hub (2011) Disadvantages of Structured Programming, [online]

Available at: <http://www.brighthub.com/internet/web-development/articles/73920.aspx> [Accessed: 2nd

September 2011].

What is structured Programming (2002) Structured Programming, [online]

Available at: <http://searchcio-midmarket.techtarget.com/definition/structured-programming> [Accessed: 2nd September 2011].

Question :

You mention, near the end of your (very good) posting that one of the major disadvantages of structured programming is information hiding - which I agree - but should this problem only occur if the code is not documented?

Otherwise, a properly documented code should minimize this disadvantage.... Thoughts?

Yes this disadvantage can be minimized by proper documentation to some extent such as avoid use of same variable but if we study the information hiding concept deeply then it states that direct access to critical data is not possible by the user of the program. In this way user have easy control on

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the program and there is no need to go much deeper in the complex programming strategies.