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Software Reuse and Protected versus Private Members

Inheritance is an important topic when it comes to software reusability and using different types of protected members. When programming, saving time is critical when trying to write good code. Inheritance allows one to reuse members that were declared in different classes. This is a part of software reusability as you do not have to write the same code over and over again. If you were to redeclare similar members in every class, this would also make you code longer and waste potential time, which is not a good coding practice. Using inheritance also allows for one to minimize the errors when it comes to coding because of the condensed code. For instance, if two different classes have similar names when it comes to their variables, this can create confusion when an error occurs. Having one member variable can reduce the confusion as you only have to trace it down to that member. When also talking about inheritance, we also have to refer to protected members and private members. Unlike protected members, private members can not be shared between the classes even though it might be in the same package. This is where protected variables are best used as they have an intermediate level of access. But this leads to one con of protected members which is not having the same amount of protection as the private members. This means the protected members can still be tampered with within the package. This makes it vulnerable compared to the private members as private members are hidden and not accessible from the class itself. Private members are the best when it comes to data encapsulation, but do they have a lot more steps to deal with them such as using setters and getters in order to enable the member. If protection is not a big concern, then access modifier protected is the way to go when dealing with inheritance between subclasses and superclasses.

Works Cited:

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