

Final Classes

To prevent **Imposter** classes, when you design a base class, consider which functions you want to allow others to extend and which ones should be "set in stone". No one should ever change `getName()`, so you can **seal it using final** like this:

```
class Person
{
public:
    virtual std::string getName() const final;
};
```

When a member function is marked **final** then derived classes are **prevented** from overriding it and we would see an error message like this:

```
Person.cpp:33:12: error: virtual function 'virtual
    std::string Imposter::getName() const'
    string getName() const
    ^
Person.cpp:21:8: error: overriding final function
    'virtual std::string Person::getName() const'
    string Person::getName() const { return name; }
    ^
```

Only **virtual** functions can be marked **final**, (which is really annoying). When designing a collection of classes, you normally **won't want all of the classes to be extensible**. To prevent others from extending your class, add **final** to the class header, just like you did for the method. If you make a class **final**, then there is no reason to make the methods **final** as well.



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