Ask me anything

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0 questions
0 upvotes

We are designing a hierarchy of classes for geometric shapes. Should Square inherit from Rectangle or vice versa?

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A Square is a type of Rectangle

Square is a specific rectangle

Square from Rectancle because every Square is a rectancle, however, not every rectancle is a square

Yes because a Square is a Rectangle

Square should inherit from rectangle

an abstract class cannot be instatiated

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What's the difference between an interface and an abstract class with only abstract methods?

abstract class can have instance variables

an abstract class cannot be instantiated

unlimited interfaces can be implemented but only one class can be inherited from

A class can implement multiple interfaces. By contrast you can only extend one superclass

you can only inherit from one abstract class but implement several interfaces

abstract class cannot be implementet

Abstract class can inherit another class using extends keyword and implement an interface. Interface can inherit only one inteface. Abstract class can be inherited using extends keyword. Interface can only be implemented using implements key-word.

An interface would be more flexible, because you can implement multiple interfaces

Why is it better to declare method arguments using interfaces than (abstract or concrete) classes?

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not depending on a specific implementation

more flexibility

easier

When a class implements an Interface, it must implement all the methods. When a class inherits from an abstract class, it doesn't necessaricly have to override them all

We might not need an instance of the object being passed in

documentation

If you only need one class with that behavior

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When is it unnecessary to define an interface for a class?

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- if only one class would use this interface
- if only one class implements it
- Assertions become clearer

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Why is a Null Object better than a null value?

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NullPointerException

no null check necessary

it's better to Handle, null values can cause Null...Exception

3

Why do we refactor the TicTacToe game before adding new features, instead of adding the new features at the same time?

clean up class hierarchy -> more flexibility

Changing too much at the same time just sounds like a huge mess. If an error occurs, we wouldn't know where it stems from.

responsibility management

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When would you use the automated “Extract Method” refactoring?

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Renaming

change input variables

when the original method is too long -> extract helper methods

reponsibility management

redistribute responsibilities

If I need a similar Methode

to make a messy method a little bit cleaner or help distribute tasks

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Why is a “simple” refactoring like renaming a method not really so simple?

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self explaining names

must make certain that the new name is not already in use

if two classes have the same method

if it is overridden or overloaded it can get confusing

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Last chance for questions