Method Overriding and Overloading

Daryl K Wood

CTO DATASHUTTLE.NET

@datashuttle | www.datashuttle.net | www.linkedin.com/in/datashuttle

Module Overview

Class method overriding

Class method overloading

Magic methods

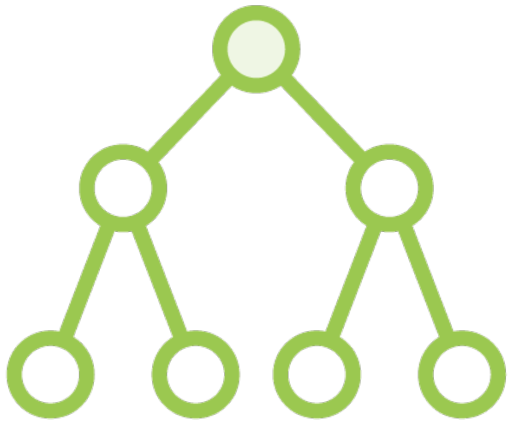
Method Overrides

What they are

When to use them

Rules and
best practices

Class Method Overriding



Superclass public and protected methods

Superclass methods are useful

Move from general to more specific

Method precedence

Demo

Default properties and methods

Represented as individual objects

Can contain unique members

Can contain duplicate members between objects

Method Overrides

The private visibility

The final visibility

Private Visiblity

Properties and methods uninheritable

No knowledge by the subclass

Used by the defining class

A judgement call by the developer

Final Visiblity

Prevents property and method overrides

PHP throws terminal error if named in a subclass

Demo

Prevents overrides

Considered a parse or syntax error, and

Will not run

Final Visibility

Why mark a “final” visiblity

Special object if changed would cause errors

Like a database connection object, or

Used only by the defining class

Demo

In the form generator application

Part of the inheritance implementation

Plan Carefully

Write code once—use many

Eye on commonality

Method Overloading

Method overloading in PHP

Method overloading in a traditional sense

Magic methods for dynamic method calls

Magic methods for dynamic properties

Demo

Like a constructor/destructor

Automatic call

Undeclared method

Inaccessable property

Method Overloading

One technique among a few

PHP method overloading is different

Overloading Wrap

Magic method __get()

Magic method __set()

Used for inaccessable properties, or

Properties that are not declared

Demo

See the __set() in action

Why?

Why all the setters then?

Fixed setters best for unit tests

Allows for autocomplete in IDEs

Allows for code documentation

Demo

See the __get() in action

Called automatically, if

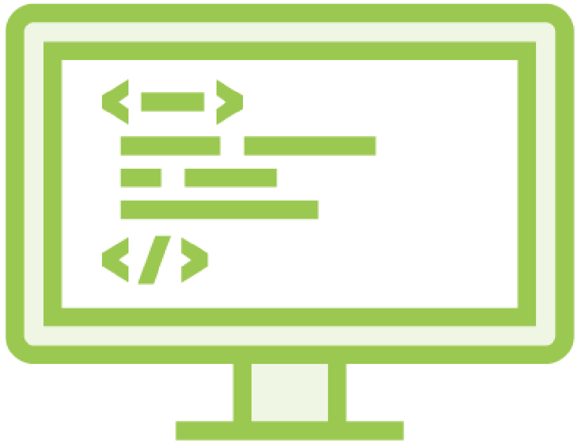
No specific getter exists

Method Overloading

One technique among a few

PHP method overloading is different

More Magic



Magic method __isset()

Magic method __unset()

Used for inaccessable properties, or

Properties that are not declared

Demo

Now the __isset() in action

Demo

Now the __unset() in action

Magic Methods

Good to go on __isset() and __unset()

More Magic

Magic method __sleep()

Magic method __wakeup()

__Sleep() executed prior to serialization

Serialization: A string representation of an object

__wakeup() executed prior to unserialization

Demo

Now the __sleep() in action

Demo

Now the __wakeup() in action

Magic Methods

Good to go on __sleep() and __wakeup()

More Magic

No mention for: __toString(), __set_state(), __debuginfo()

Magic method __invoke()

Called when objects are treated like functions

Magic method __clone()

Called when objects are cloned

Demo

Now the __invoke() in action

Demo

Now the __clone() in action

Module Summary

Overriding methods in subclasses

Overload with magic methods

Other magic methods available