Object-oriented Programming

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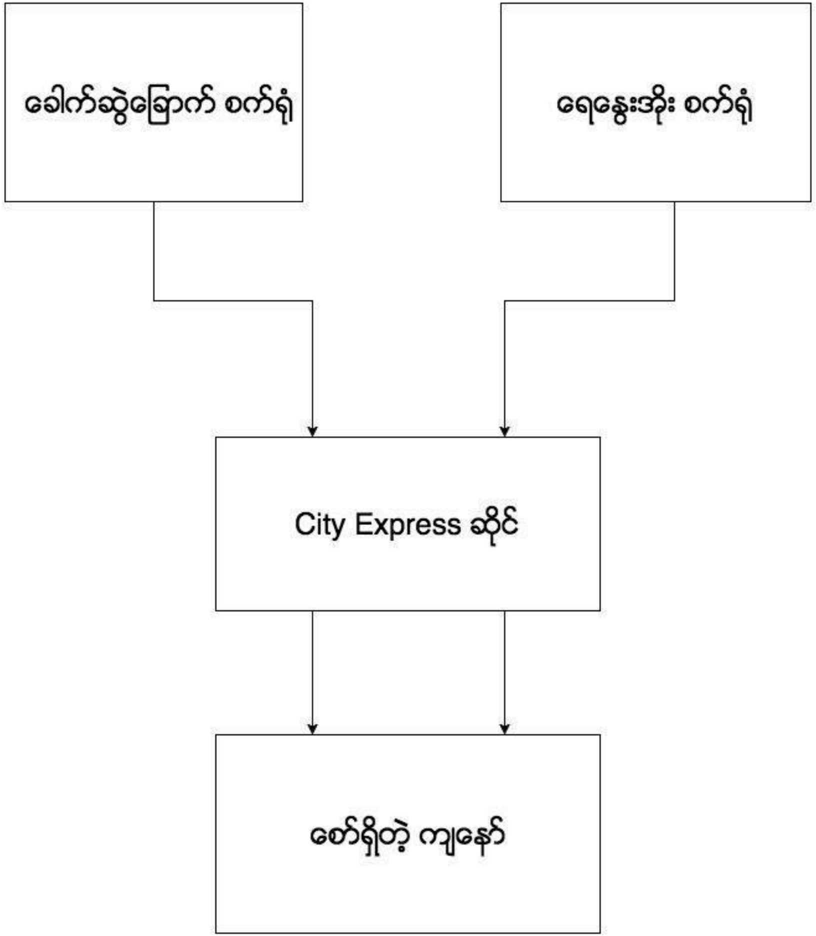

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City Express ဆိုင်

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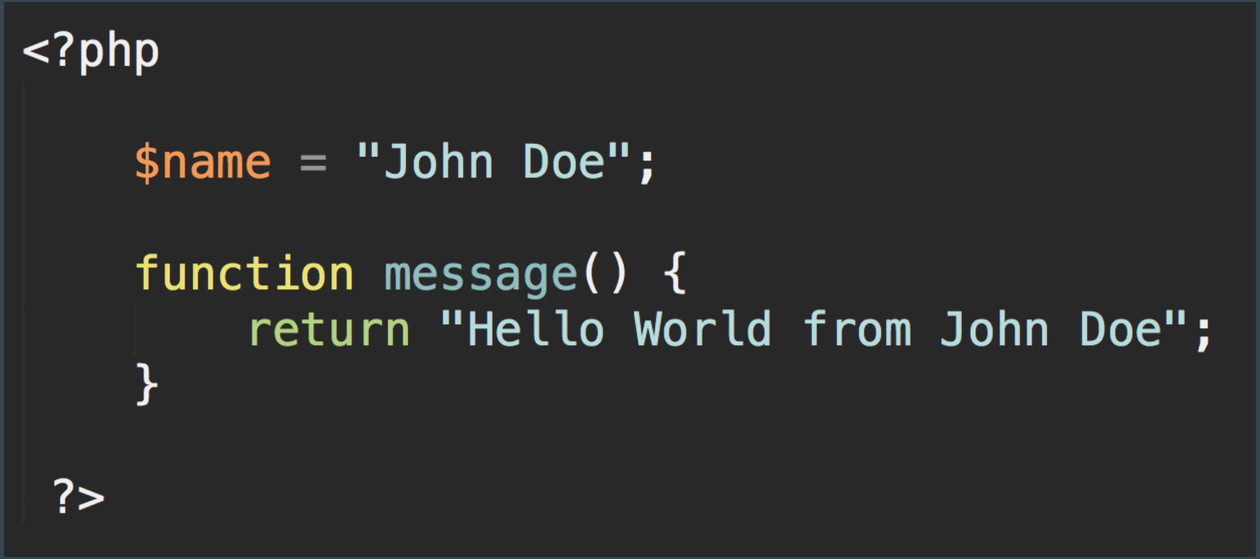
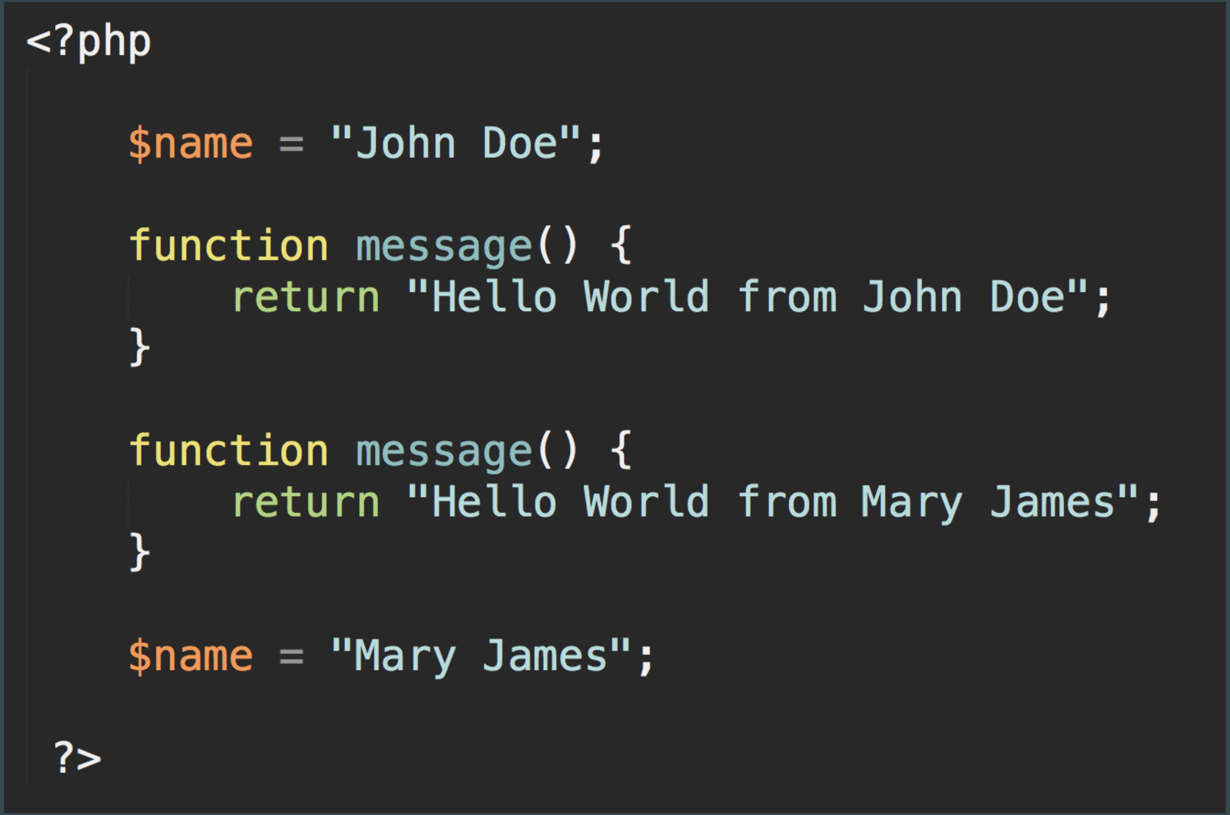


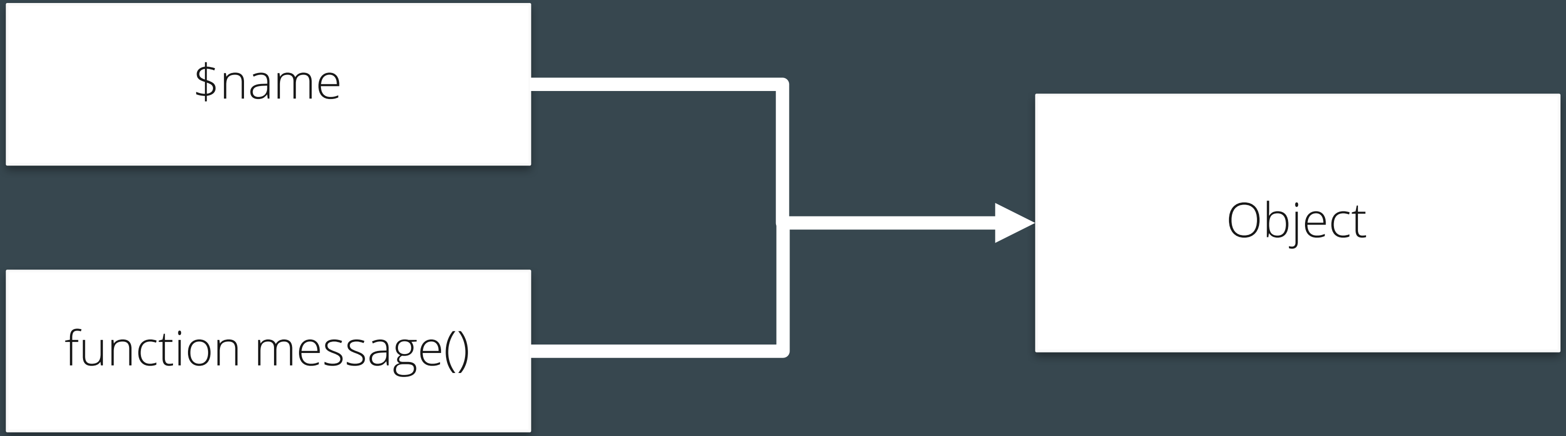
```php
<?php

    $name = "John Doe";

    function message() {
        return "Hello World from John Doe";
    }

 ?>
```

oop-01.php



```php
<?php

    $name = "John Doe";

    function message() {
        return "Hello World from John Doe";
    }

    function message() {
        return "Hello World from Mary James";
    }

    $name = "Mary James";

 ?>
```

oop-02.php


$name
function message()
Object

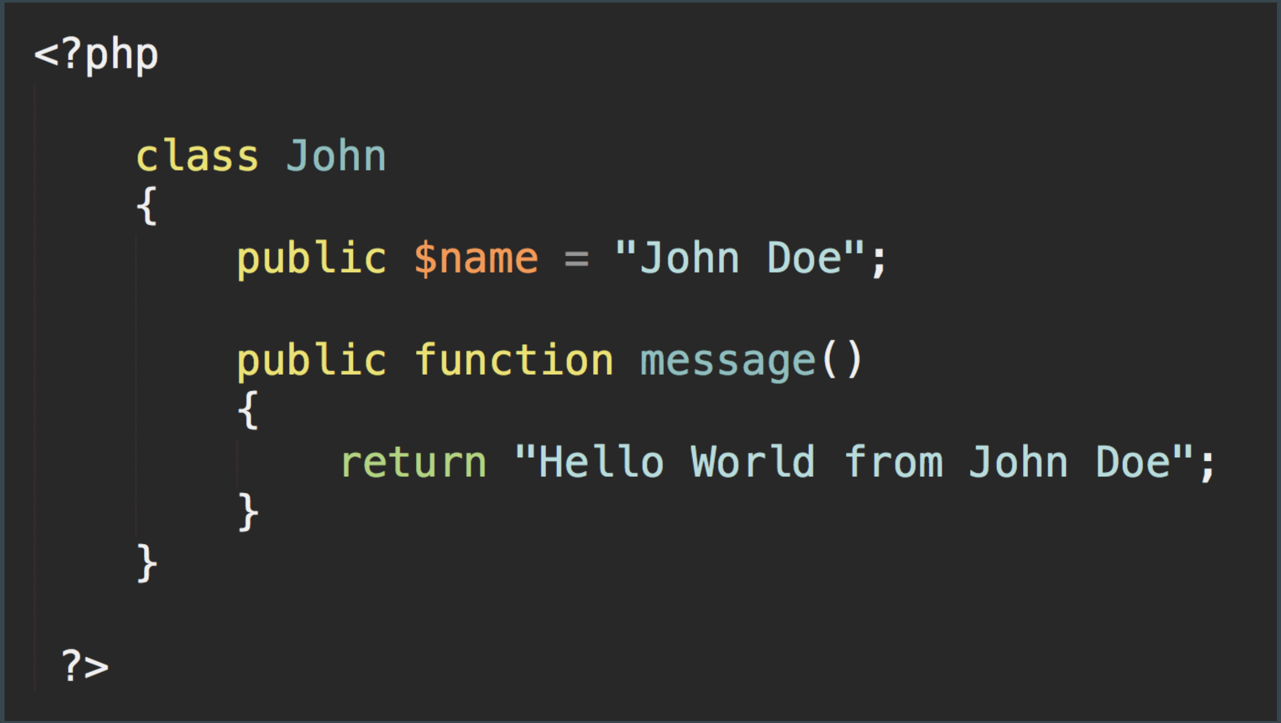
Class

Object

- $name
- function message()

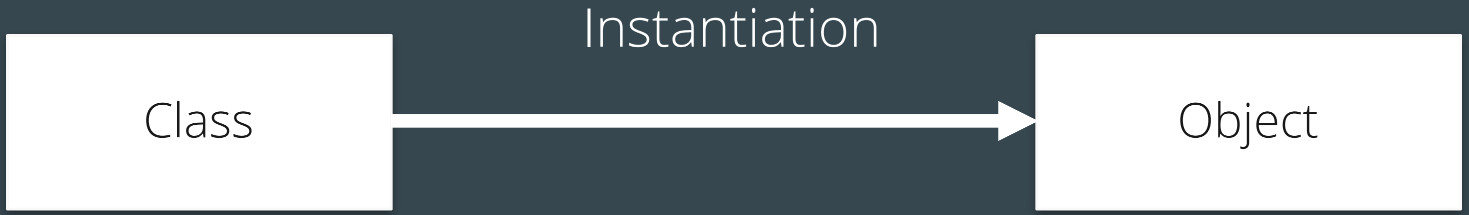
- $name
- function message()

- Class is The Blueprint of Object
- Variables, Arrays and Functions that declare in Class will be available to use in Object

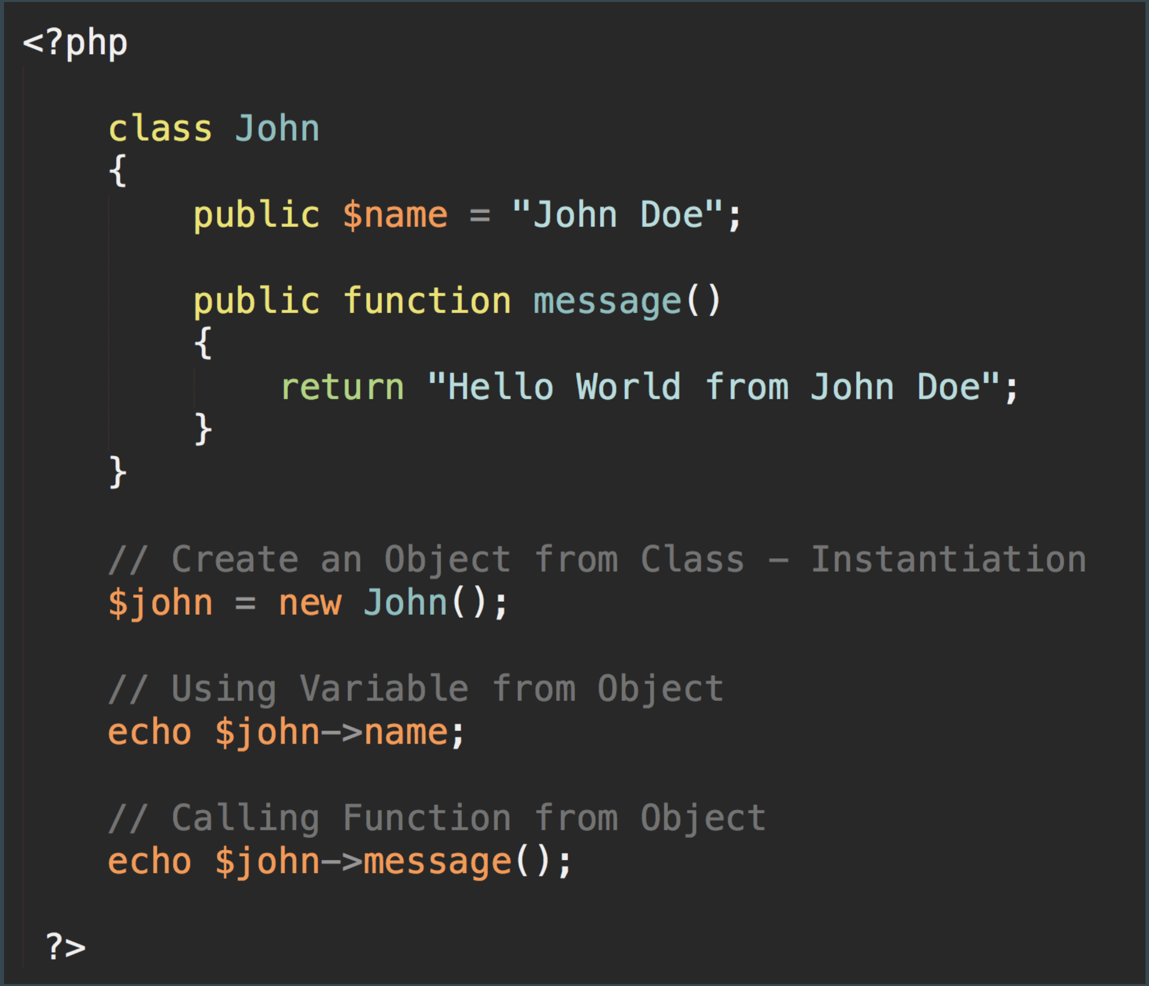


```
<?php

    class John
    {
        public $name = "John Doe";

        public function message()
        {
            return "Hello World from John Doe";
        }
    }

 ?>
```

oop-03.php



Instantiation – Creation of an Object from a Class



```php
<?php

    class John
    {
        public $name = "John Doe";

        public function message()
        {
            return "Hello World from John Doe";
        }
    }

    // Create an Object from Class - Instantiation
    $john = new John();

    // Using Variable from Object
    echo $john->name;

    // Calling Function from Object
    echo $john->message();

 ?>
```

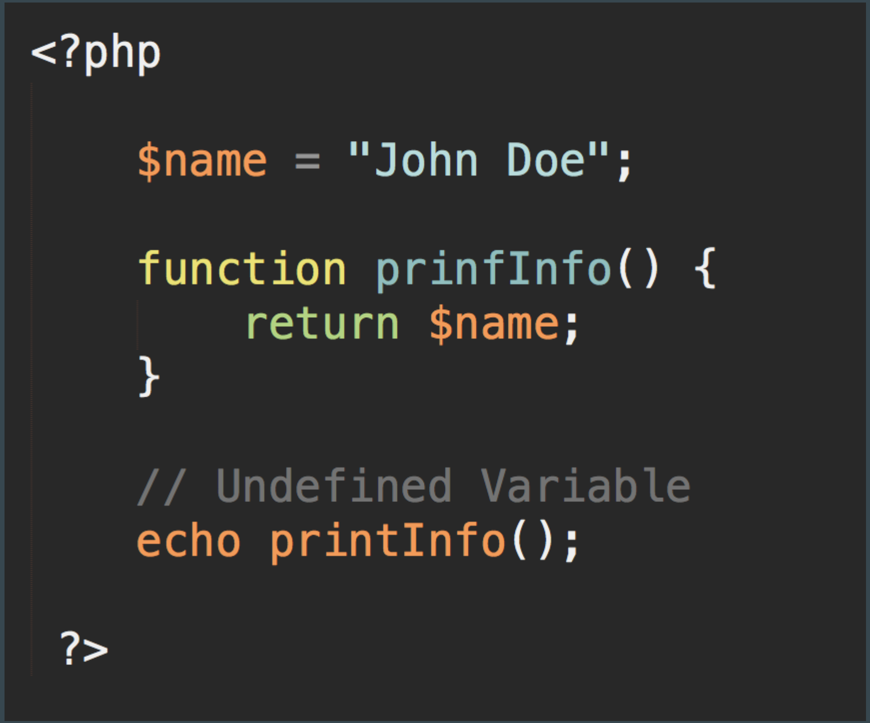
oop-04.php

OOP Vocabulary

- Class
- Object
- Instantiation
- Methods (Functions)
- Properties (Variables, Arrays)

oop-05.php

oop-06.php



```php
<?php

    $name = "John Doe";

    function prinfInfo() {
        return $name;
    }

    // Undefined Variable
    echo printInfo();

 ?>
```

oop-07.php

oop-08.php

$this keyword

Pseudo Variable (PHP declare that for you)

Only Usable in Class

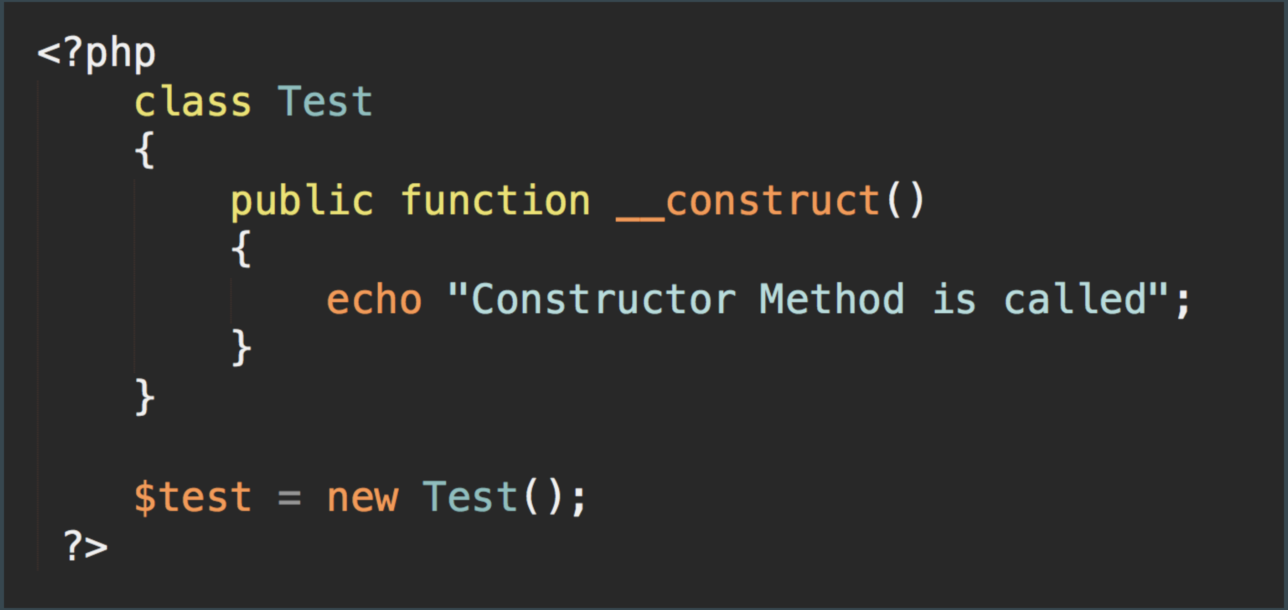
Reference an object of current class

oop-09.php

Constructor Method

Constructor Method is called automatically when an object is created

You can pass arguments to constructor method when you create an object



```php
<?php
    class Test
    {
        public function __construct()
        {
            echo "Constructor Method is called";
        }
    }

    $test = new Test();
 ?>
```

oop-10.php

oop-11.php

4 Pillars of Object-oriented Programming

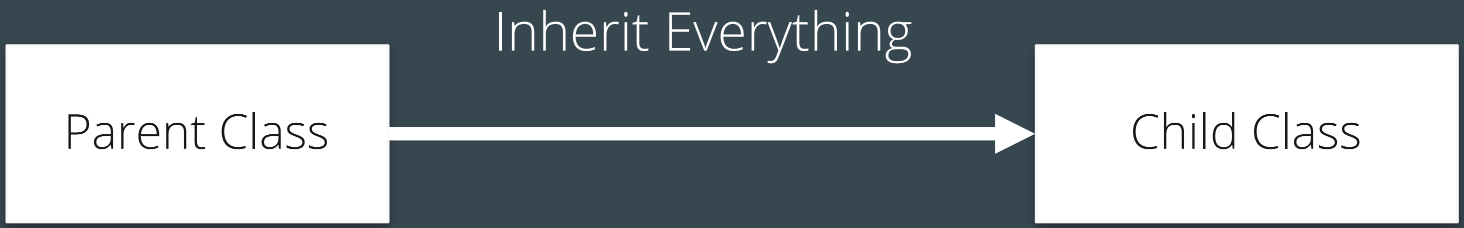
- Abstraction
- Encapsulation
- Inheritance
- Polymorphism

Abstraction

Hide the implementation detail

Inheritance

Code Reuse



Inherit Everything

Parent Class

Child Class

oop-12.php

Encapsulation

Hide Data from Other Class

Encapsulation

Visibility Settings

- private
- protected
- public

- Getter and Setter Functions

oop-13.php

oop-14.php

Polymorphism

Many Form

oop-15.php

Why OOP?

If you use OOP, Your Code become

- Reusable
- Extensible
- Maintainable

Interface

Abstract Class

Abstract Function

Exception

Static Keyword

Self Keyword

Type Hinting