

Classes in PHP

What is a Class

In PHP, a class is like a template for making objects.

It holds information (properties) and actions (methods) that the objects can do. Essentially, classes define a type of data along with the operations that can be performed on that data.

```
class Car {
    // Properties
    public $make;
    public $model;
    public $year;
    public $colour;

    // Methods
    function set_year($year) {
        $this->year = $year;
    }
    function get_year() {
        return $this->year;
    }
    function get_colour() {
        return $this->colour;
    }
}
```

***Tip:** In a PHP class definition, properties are variables, methods are functions.*

- This defines the class `Car`
- Which has the properties `make`, `model` and `year`
- With the methods `set_year()` and `get_year()`

The `$this` Keyword

Inside methods of a class, the `$this` keyword can be used to return a reference to the object instance that's executing the method. An example of this is shown above. When the method refers to `$this->year`, it is referring to the `year` property of the particular object instance that is executing the method.

Creating an new from a Class

To use a class, you create an instance of the class, which is known as an object. Here's how you can create an object from the `Car` class:

```
// Create object instances
$bmw = new Car();
// $audi = new Car();

// Use class properties
$bmw->make = 'BMW';
$bmw->model = 'M3';
// $audi->make = 'Audi';
//$audi->model = 'RS6';

// Use class methods
```

```
$bmw->set_year(2019);  
// $audi->set_year(2020);  
  
echo $bmw->get_year() . ' ' . $bmw->make . ' ' . $bmw->model . '<br/>';  
// Output: 2019 BMW M3  
  
//echo $audi->get_year() . ' ' . $audi->make . ' ' . $audi->model . '<br/>';  
// Output: 2020 Audi RS6
```

The instanceof Operator

The `instanceof` operator returns `true` when the operand on the left belongs to the class.

```
$bmw = new Car;  
if ($bmw instanceof Car) {  
    echo 'It is a Car!'; }  
else {  
    echo 'It is not a Car!'; }  
// Output: It is a Car!
```