

PHP – Filtered unserialize()

In PHP, the built-in function `unserialize()` is available from PHP version 4 onwards. With PHP 7, a provision to pass a list of allowed classes has been added. This allows the untrusted source to be filtered out. The `unserialize()` function unserializes the data from only the trusted classes.

In PHP, serialization means generation of a storable representation of a value. This is useful for storing or passing PHP values around without losing their type and structure. The built-in `serialize()` function is used for this purpose.

`serialize(mixed $value): string`

The `unserialize()` function gives a PHP value from the serialized representation. From PHP 7 onwards, the `unserialize()` function follows the format below –

`unserialize(string $data, array $options = []): mixed`

The **\$data** parameter is the serialized string which you want to unserialize.

The **\$options** parameter has been newly introduced. It is an associative array of following keys –

Sr.No	Name & Description
1	allowed_classes an array of class names which should be accepted, or false to accept no classes, or true to accept all classes. Omitting this option is the same as defining it as true
2	max_depth The maximum depth of structures permitted during unserialization.

Example

Take a look at the following example –

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```
<?php
class MyClass {
    var int $x;
    function __construct(int $x) {
        $this->x = $x;
    }
}
class NewClass {
    var int $y;
    function __construct(int $y) {
        $this->y = $y;
    }
}

$obj1 = new MyClass(10);
$obj2 = new NewClass(20);

$sob1 = serialize($obj1);
$sob2 = serialize($obj2);

// default behaviour that accepts all classes
// second argument can be omitted.
// if allowed_classes is passed as false, unserialize converts all objects into
$usob1 = unserialize($sob1 , ["allowed_classes" => true]);

// converts all objects into __PHP_Incomplete_Class object except those of MyClass
$usob2 = unserialize($sob2 , ["allowed_classes" => ["MyClass", "NewClass"]]);

echo $usob1->x . PHP_EOL;
echo $usob2->y . PHP_EOL;

?>
```

It will produce the following **output** –

```
10
20
```