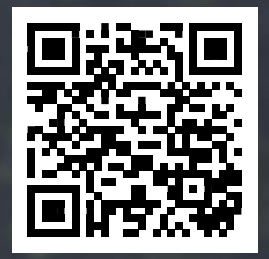
PHP 8.1 Enums

Ayesh Karunaratne | https://aye.sh/talk/midwest-php-2021-php-enums



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PHP 8.1 Enums

PHP 8.1 Enumerations

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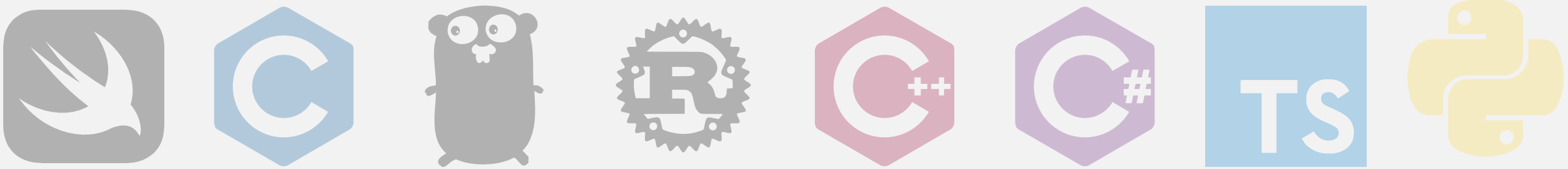

Dec 04 2020	**Enumerations: RFC Created**
Feb 03 2021	**Voting started**
Feb 17 2021	**Voting ended: 44:7**
Apr 22 2021	**Midwest PHP 2021** 
Nov 25 2021	**PHP 8.1**

PHP 8.1: Enums

- Why we need Enums
- How Enums can help
- Enums in PHP 8.1
- Enum Semantics
- Usage Examples
- Trying out Enums today
- Backwards Compatibility

Why we need Enums

```php
$handle = curl_init();
$options = [
    CURLOPT_URL => 'https://example.com',
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_2_0,
    CURLOPT_RETURNTRANSFER => true,
];
curl_setopt_array($handle, $options);
curl_exec($handle);
```


```php
$handle = curl_init();
$options = [
    CURLOPT_URL => 'https://example.com',
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_2_0,
    CURLOPT_RETURNTRANSFER => true,
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curl_setopt_array($handle, $options);
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$handle = curl_init();
$options = [
    CURLOPT_URL => 'https://example.com',
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_2_0,
    CURLOPT_RETURNTRANSFER => true,
];
var_dump($options);
curl_setopt_array($handle, $options);
curl_exec($handle);
```


```php
$handle = curl_init();
$options = [
    CURLOPT_URL => 'https://example.com',
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_2_0,
    CURLOPT_RETURNTRANSFER => true,
];
var_dump($options);
curl_setopt_array($handle, $options);
curl_exec($handle);
```

```
array(3) {
   [10002]=> string(19) "https://example.com"
   [84]=> int(3)
   [19913]=> bool(true)
}
```


```php
define ('CURLOPT_URL', 10002);
define ('CURLOPT_HTTP_VERSION', 84);
define ('CURL_HTTP_VERSION_1_1', 2);
define ('CURL_HTTP_VERSION_2_0', 3);
define ('CURLOPT_RETURNTRANSFER', 19913);
```

```php
$handle = curl_init();
$options = [
    CURLOPT_URL => 'https://example.com',
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_2_0,
    CURLOPT_RETURNTRANSFER => true,
];
var_dump($options);
curl_setopt_array($handle, $options);
curl_exec($handle);
```

```
array(3) {
   [10002]=> string(19) "https://example.com"
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define ('CURLOPT_HTTP_VERSION', 84);
define ('CURL_HTTP_VERSION_1_1', 2);
define ('CURL_HTTP_VERSION_2_0', 3);
define ('CURLOPT_RETURNTRANSFER', 19913);
```

```php
$handle = curl_init();
$options = [
    CURLOPT_URL => 'https://example.com',
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_2_0,
    CURLOPT_RETURNTRANSFER => true,
];
var_dump($options);
curl_setopt_array($handle, $options);
curl_exec($handle);
```

```
array(3) {
   [10002]=> string(19) "https://example.com"
   [84]=> int(3)
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```php
define ('CURLOPT_URL', 10002);
define ('CURLOPT_HTTP_VERSION', 84);
define ('CURL_HTTP_VERSION_1_1', 2);
define ('CURL_HTTP_VERSION_2_0', 3);
define ('CURLOPT_RETURNTRANSFER', 19913);
```

```php
$handle = curl_init();
$options = [
    CURLOPT_URL => 'https://example.com',
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_2_0,
    CURLOPT_RETURNTRANSFER => true,
];
var_dump($options);
curl_setopt_array($handle, $options);
curl_exec($handle);
```

```
array(3) {
   [10002]=> string(19) "https://example.com"
   [84]=> int(3)
   [19913]=> bool(true)
}
```


```php
function curl_setopt(CurlHandle $handle, int $option, mixed $value) : bool {}
```


```
function curl_setopt(CurlHandle $handle, int $option, mixed $value) : bool {}
```


```php
function curl_setopt(CurlHandle $handle, int $option, mixed $value) : bool {}
```

```php
curl_setopt($handle, 10002, 'https://example.com');
```

10002 - CURLOPT_URL

```php
curl_setopt($handle, 10003, 'https://example.com');
```

PHP Error: curl_setopt(): Argument #2 ($option) is not a valid cURL option in … on line …

```php
curl_setopt($handle, 10004, 'https://example.com');
```

10002 - CURLOPT_PROXY

```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public string $status;

    public function updateStatus(string $status): void {}
}
```


```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public string $status;

    public function updateStatus(string $status): void {}
}



$post = new Post();
$post->updateStatus(\Post::POST_STATUS_PUBLISHED);
```


```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public string $status;

    public function updateStatus(string $status): void {}
}



$post = new Post();
$post->updateStatus('returned');
```


```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public string $status;

    public function updateStatus(string $status): void {}
}



$post = new Post();
$post->updateStatus('returned');
```

```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public string $status;

    public function updateStatus(string $status): void {}
}
```


```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public string $status;

    public function updateStatus(string $status): void {
        if (  $status !== static::POST_STATUS_DRAFT
            && $status !== static::POST_STATUS_PENDING
            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
        ) {
            throw new InvalidArgumentException('Invalid state');
        }
    }
}
```


How Enums Can Help

```
enum PostStatuses {

}
```


```
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```


```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
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    public string $status;

    public function updateStatus(string $status): void {
        if (  $status !== static::POST_STATUS_DRAFT
            && $status !== static::POST_STATUS_PENDING
            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
        ) {
            throw new InvalidArgumentException('Invalid state');
        }
    }
}

$post = new Post();
$post->updateStatus(\Post::POST_STATUS_PUBLISHED);
```

```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public string $status;

    public function updateStatus(string $status): void {
        if (  $status !== static::POST_STATUS_DRAFT
            && $status !== static::POST_STATUS_PENDING
            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
        ) {
            throw new InvalidArgumentException('Invalid state');
        }
    }
}

$post = new Post();
$post->updateStatus(\Post::POST_STATUS_PUBLISHED);
```

```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
    public const POST_STATUS_PENDING = 'pending';
    public const POST_STATUS_RETURNED = 'returned';
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    public string $status;

    public function updateStatus(string $status): void {
        if (  $status !== static::POST_STATUS_DRAFT
            && $status !== static::POST_STATUS_PENDING
            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
        ) {
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        }
    }
}

$post = new Post();
$post->updateStatus(\Post::POST_STATUS_PUBLISHED);
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```php
enum PostStatuses {
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}
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    public PostStatuses $status;

    public function updateStatus(string $status): void {
        if (  $status !== static::POST_STATUS_DRAFT
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            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
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    }
}

$post = new Post();
$post->updateStatus(\Post::POST_STATUS_PUBLISHED);
```

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enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
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class Post {
    public const POST_STATUS_DRAFT = 'draft';
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    public PostStatuses $status;

    public function updateStatus(PostStatuses $status): void {
        if (  $status !== static::POST_STATUS_DRAFT
            && $status !== static::POST_STATUS_PENDING
            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
        ) {
            throw new InvalidArgumentException('Invalid state');
        }
    }
}

$post = new Post();
$post->updateStatus(\Post::POST_STATUS_PUBLISHED);
```

```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
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    public const POST_STATUS_RETURNED = 'returned';
    public const POST_STATUS_PUBLISHED = 'published';

    public PostStatuses $status;

    public function updateStatus(PostStatuses $status): void {
        if (  $status !== static::POST_STATUS_DRAFT
            && $status !== static::POST_STATUS_PENDING
            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
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            throw new InvalidArgumentException('Invalid state');
        }
    }
}

$post = new Post();
$post->updateStatus(\Post::POST_STATUS_PUBLISHED);
```

```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
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    public const POST_STATUS_DRAFT = 'draft';
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```

```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
class Post {
    public const POST_STATUS_DRAFT = 'draft';
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    public PostStatuses $status;

    public function updateStatus(PostStatuses $status): void {
        if (   $status !== static::POST_STATUS_DRAFT
            && $status !== static::POST_STATUS_PENDING
            && $status !== static::POST_STATUS_RETURNED
            && $status !== static::POST_STATUS_PUBLISHED
        ) {
            throw new InvalidArgumentException('Invalid state');
        }
    }
}

$post = new Post();
$post->updateStatus(\PostStatuses::PUBLISHED);
```

```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
class Post {
    public PostStatuses $status;

    public function updateStatus(PostStatuses $status): void {

    }
}

$post = new Post();
$post->updateStatus(\PostStatuses::PUBLISHED);
```


```php
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
function setIsSponsored(bool $sponsored): void {

}

function isSponsored(): bool {

}

setIsSponsored(true);
setIsSponsored(false);
```


Enums in PHP 8.1

Unit Enums

```
enum PostStatuses {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```


Unit Enums

```php
enum PostStatuses implements UnitEnum {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

Unit Enums

```php
enum PostStatuses implements UnitEnum {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
interface UnitEnum {
    public static function cases(): array;
}
```


Unit Enums

```php
enum PostStatuses implements UnitEnum {
    case DRAFT;
    case PENDING;
    case RETURNED;
    case PUBLISHED;
}
```

```php
interface UnitEnum {
    public static function cases(): array;
}
```

```php
echo PostStatuses::DRAFT->name;
// "DRAFT"
```


Backed Enums

Backed Enums extend Unit Enums

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```


Backed Enums

Backed Enums extend Unit Enums

```php
enum PostStatuses: string implements BackedEnum {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```


Backed Enums

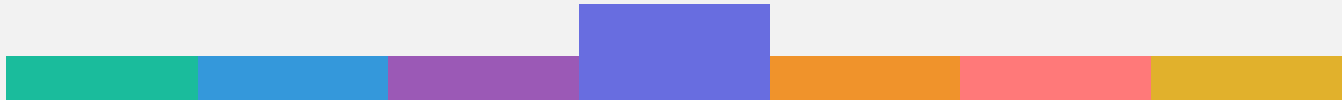
Backed Enums extend Unit Enums

```php
enum PostStatuses: string implements BackedEnum {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}

interface BackedEnum extends UnitEnum {
    public static function from(int|string $value): static;
    public static function tryFrom(int|string $value): ?static;
}

echo PostStatuses::DRAFT->name;
// "DRAFT“

echo PostStatuses::DRAFT->value;
// "draft"
```


Enum Semantics

Enum

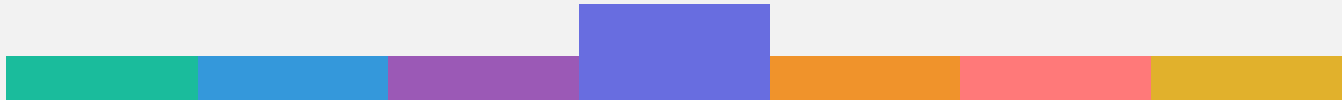
Enumerated type that contains a fixed number of members.



Enum

Enumerated **type** that contains a fixed number of members.

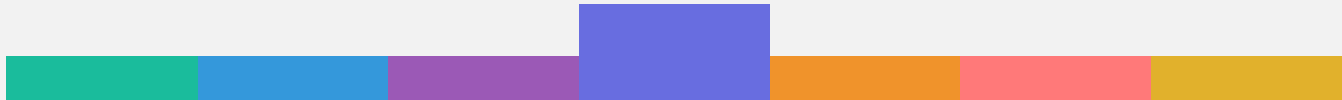
A type that is supported as parameter, return, and property type in PHP,
and the type is enforced by PHP itself.



Enum

Enumerated type that **contains** a fixed number of members.

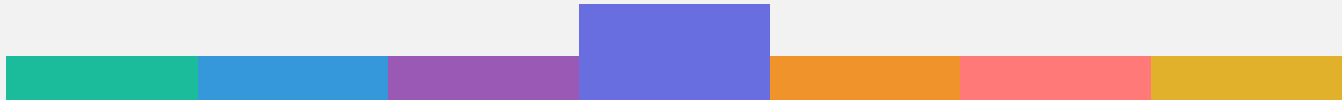
All members are contained within a declared Enum.



Enum

Enumerated type that contains a **fixed** number of members.

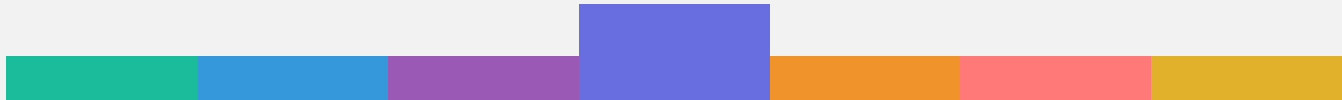
Members of an Enum is fixed at the declaration time.
An enumerated member is identical to the same member everywhere.
Enums must not contain state.



Enumerated types

```php
enum Suit {
    case Spades;
    case Hearts;
    case Clubs;
    case Diamonds;
}
```

```php
function play_card(Suit $suit, string $card) {}

function pick_a_suit(): Suit {
    return Suit::Spades;
}

play_card(Suit::Spades, 'A');
var_dump(pick_a_suit());
// enum(Suit::Spades)
```

Enumerated types

```php
enum Suit {
    case Spades;
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    case Diamonds;
}
```
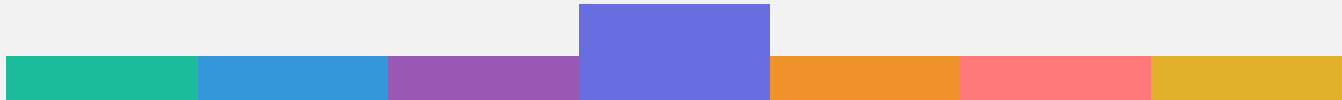

```php
function play_card(Suit $suit, string $card) {}

function pick_a_suit(): Suit {
    return Suit::Spades;
}
```

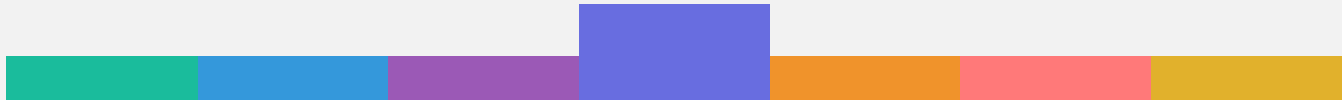
```php
play_card(Fruits::Apple);
play_card(Languages::English);
play_card('potato');
```

Fatal error: Uncaught TypeError: play_card(): Argument #1 ($suit) must be of type Suit, string given



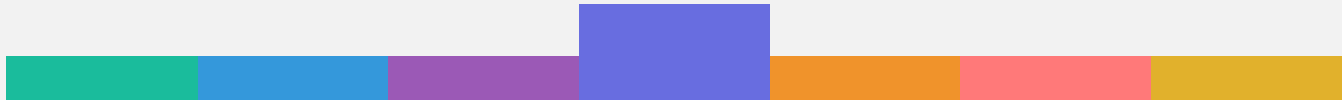
Closed Set

```
enum Suit {
    case Spades;
    case Hearts;
    case Clubs;
    case Diamonds;
}
```

Closed Set

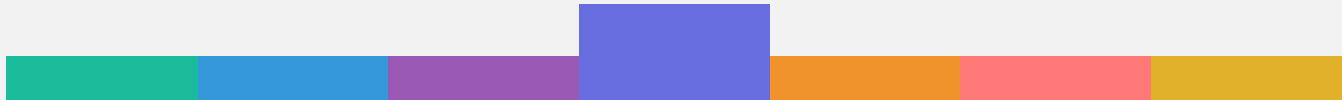
```
namespace Foo\Bar;

enum Suit {
    case Spades;
    case Hearts;
    case Clubs;
    case Diamonds;
}
```

Fixed Members

```
enum Suit {
    case Spades;
    case Hearts;
    case Clubs;
    case Diamonds;
}
```

```
Suit::Spades === Suit::Spades
```

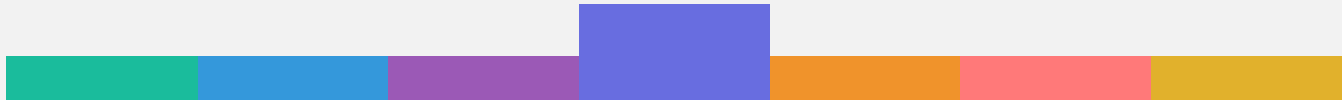



Fixed Members

```
enum Suit {
    case Spades;
    case Hearts;
    case Clubs;
    case Diamonds;
}
```

```
enum RussianSuit extends Suit {}
```

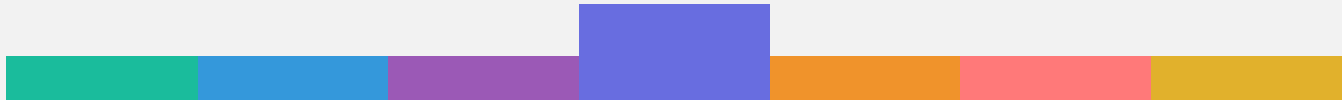
Parse error: syntax error, unexpected token "extends", expecting "{"



Fixed Members

```
enum Suit {
    case Spades;
    case Hearts;
    case Clubs;
    case Diamonds;

    private string $foo;
}
```

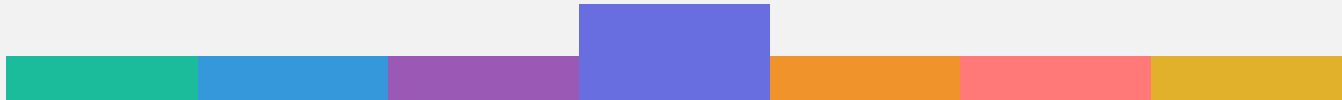
Fatal error: Enums may not include properties



Enums can have zero or more cases

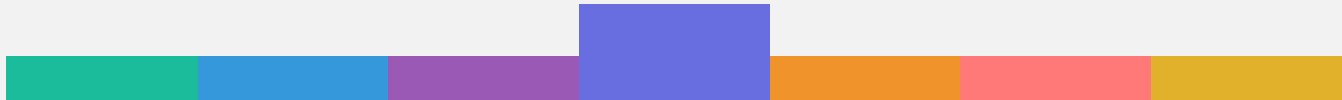
```
enum ErrorStates {
}
```

```
enum HTTPMethods {
        case GET;
        case POST;
}
```

Enums *may* have optional values

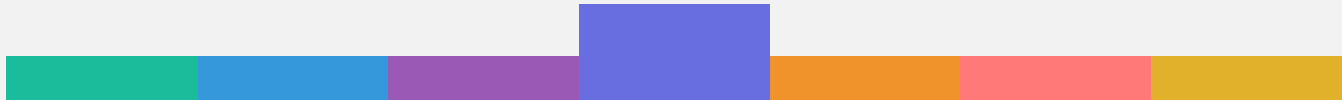
```
enum Suit: string {
    case Clubs = '♣';
    case Diamonds = '♦';
    case Hearts = '♥';
    case Spades = '♠';
}
```

Backed Enums *must* assign values for all cases

```
enum HTTPMethods: string {
    case GET;
    case POST;
}
```

Fatal error: Case GET of backed enum HTTPMethods must have a value



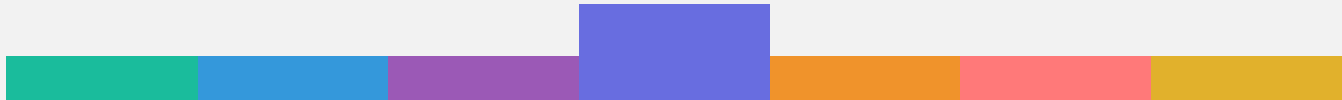
Enum cases and values *must* be unique

```php
enum Test {
    case FOO;
    case FOO;
}
```

Fatal error: Cannot redefine class constant Test::FOO

```php
enum Test: string {
    case FOO = 'baz';
    case BAR = 'baz';
}
```

Fatal error: Duplicate value in enum Test for cases FOO and BAR



Class Semantics

- Supports namespaces
- Supports traits
- Supports autoloading
- Supports magic constants
- Supports `instanceof`
- **Supports methods**

```php
namespace Foo\Bar;

enum PostStatuses: string implements EntityStatues {

    use TestTrait;

    case DRAFT = 'draft';
    case PENDING = 'pending';
    case RETURNED = 'returned';
    case PUBLISHED = 'published’;

    public static function showOff(): void {
        echo __CLASS__ . static::class;
    }

}
```

Usage Examples

```
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```


```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```

```php
class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }
}
```

Usage Examples

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
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```php
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    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }
}
```

Usage Examples

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
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    case PUBLISHED = 'published';
}
```

```php
class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }

    public function updateStatus(PostStatuses $status): void {
        $this->status = $status;
    }

    public function getStatus(): PostStatuses {
        return $this->status;
    }
}
```

Usage Examples

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```

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class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }

    public function updateStatus(PostStatuses $status): void {
        $this->status = $status;
    }

    public function getStatus(): PostStatuses {
        return $this->status;
    }
}
```

```php
$stmt = $pdo->prepare("
    SELECT *
    FROM posts
    WHERE post_status=?");
$stmt->execute([
    PostStatuses::PUBLISHED->value
]);
$post = $stmt->fetch();
```

Usage Examples

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```

```php
class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }

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    PostStatuses::PUBLISHED->value
]);
$post = $stmt->fetch();
```

Usage Examples

```php
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    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```

```php
class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }

    public function updateStatus(PostStatuses $status): void {
        $this->status = $status;
    }

    public function getStatus(): PostStatuses {
        return $this->status;
    }
}
```

```php
$sql = "
    INSERT INTO
        posts (id, title, post_status)
     VALUES
         (:id, :title, :post_status)";
$stmt= $pdo->prepare($sql);
$stmt->execute([
    'id' => $post->getId(),
    'title' => $post->getTitle(),
    'post_status' => $post->getStatus()->value,
]);
```

Usage Examples

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```

```php
class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }

    public function updateStatus(PostStatuses $status): void {
        $this->status = $status;
    }

    public function getStatus(): PostStatuses {
        return $this->status;
    }
}
```

```php
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    INSERT INTO
        posts (id, title, post_status)
     VALUES
         (:id, :title, :post_status)";
$stmt= $pdo->prepare($sql);
$stmt->execute([
    'id' => $post->getId(),
    'title' => $post->getTitle(),
    'post_status' => $post->getStatus()->value,
]);
```

Usage Examples

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
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}
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```php
class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }

    public function updateStatus(PostStatuses $status): void {
        $this->status = $status;
    }

    public function getStatus(): PostStatuses {
        return $this->status;
    }
}
```

```php
$result = [
    'id' => 42,
    'title' => 'PHP Enums',
    'post_status' => 'published',
];

$post = new Post(
    $result['id'],
    $result['title']
);

$post->updateStatus(
    PostStatuses::from($result['post_status'])
);
```

Usage Examples

```php
enum PostStatuses: string {
    case DRAFT = 'draft';
    case PENDING = 'pending’;
    case RETURNED = 'returned';
    case PUBLISHED = 'published';
}
```

```php
class Post {
    private int $id;
    private string $title;
    private PostStatuses $status;

    public function __construct(
        int $id,
        string $title
    ) {
        // ...
    }

    public function updateStatus(PostStatuses $status): void {
        $this->status = $status;
    }

    public function getStatus(): PostStatuses {
        return $this->status;
    }
}
```

```php
$result = [
    'id' => 42,
    'title' => 'PHP Enums',
    'post_status' => 'published',
];

$post = new Post(
    $result['id'],
    $result['title']
);

$post->updateStatus(
    PostStatuses::from($result['post_status'])
);
```

Usage Examples

Trying out Enums today

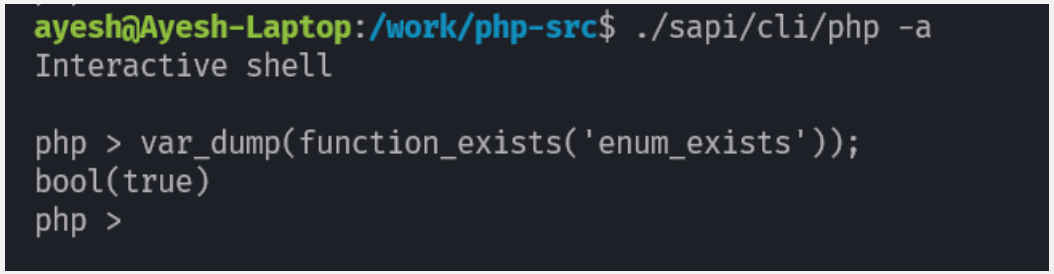
Try it online with 3v4l.org

Nightly Docker Images

```
docker pull phpdaily/php:8.1-dev
```


Self-compile PHP from source

```
$  git clone git@github.com:php/php-src.git
$  ./buildconf
$  ./configure
$  make -j$(nproc)
$  ./sapi/cli/php -a
```



Backwards Compatibility

Enums is a new syntax

Enums is a new syntax introduced in PHP 8.1, and not supported in older PHP versions.

Parse error: syntax error, unexpected identifier "PostStatuses"

User-land PHP implementations

https://github.com/myclabs/php-enum

```php
use MyCLabs\Enum\Enum;

class PostStatuses extends Enum {
    private const DRAFT = 'draft';
    private const PENDING = 'pending';
    private const RETURNED = 'returned';
    private const PUBLISHED = 'published';
}
```

Further Resources

- https://php.watch/versions/8.1/enums
- https://php.watch/versions/8.1
- https://wiki.php.net/rfc/enumerations
- https://phpinternals.news/73
- https://github.com/php/php-src/pull/6489/
- https://externals.io/message/112626
- https://github.com/phpdaily/php
- https://3v4l.org/

Questions?

No question is too small.

@Ayeshlive ayesh@php.watch

https://aye.sh/talk/midwest-php-2021-php-enums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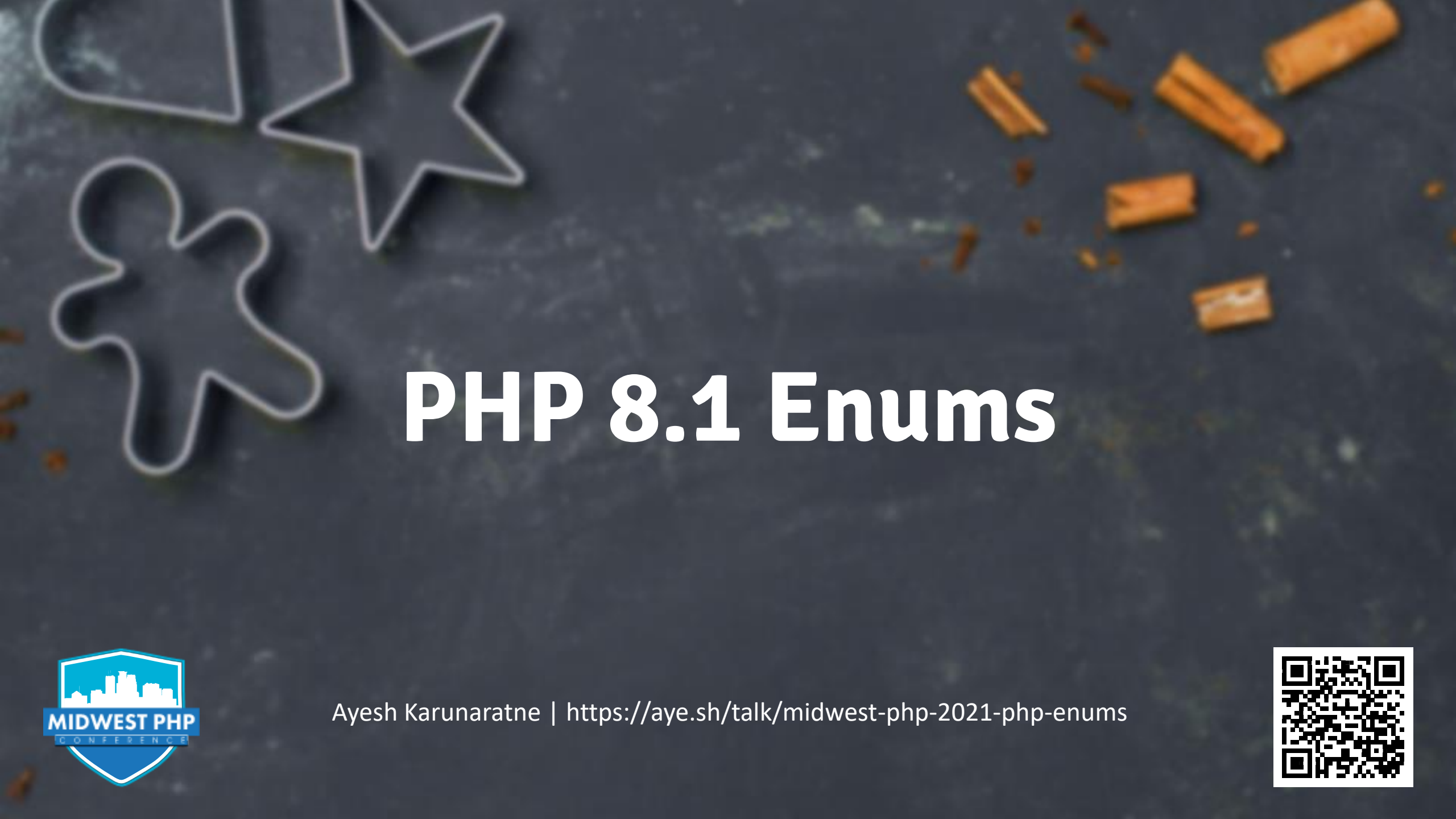
terima kasih
hvala
grazzi
THANK YOU


PHP 8.1 Enums
MIDWEST PHP
CONFERENCE
Ayesh Karunaratne | https://aye.sh/talk/midwest-php-2021-php-enums