
enumagic

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Python enums that work like magic.

class enumagic.**IterEnum**

Bases: `enum.Enum`

Enum class that can be used as an iterable.

__class__

alias of `enumagic.IterMeta`

Examples

```
>>> class IterExample(IterEnum):
...     A = 'Alice'
...     B = 'Bob'
>>> dict(IterExample)
{'A': 'Alice', 'B': 'Bob'}
```

class enumagic.**IterMeta**

Bases: `enum.EnumMeta`

Iterable enum metaclass.

__contains__ (*item: Any*) → bool

Check whether the enum contains a certain item

Parameters *item* (*Any*) – A string or enum instance.

Returns bool – True if the enum has a member that matches the given item, False otherwise.

Raises `TypeError` – If the item is not a string or enum instance.

Examples

```
>>> 'B' in IterExample
True
>>> 'C' in IterExample
False
```

__iter__ () → `Iterator[Tuple[str, _VT]]`

Iterate over the entries of the enum.

Yields tuple of `str`, `object` – The next tuple where the first element is the name of the enum instance and the second element is the value of the enum instance.

Examples

```
>>> it = iter(IterExample)
>>> next(it)
('A', 'Alice')
```

class enumagic.**MappingEnum** (*index: int*, *label: str*)

Bases: `enum.Enum`

Enum class which maps labels to indices.

Variables

- **index** (*int*) – An integer that will be used as the index.
- **label** (*str*) – A string that will be used as the label.

Examples

```
>>> class MappingExample(MappingEnum):  
...     A = 0, 'Alice'  
...     B = 1, 'Bob'  
>>> '%d, %s' % (MappingExample.B.index, Example.B.label)  
'1, Bob'
```

__class__

alias of *enumagic.MappingMeta*

__str__ () → str

Return the instance as a string.

Returns *str* – The label of the instance.

Examples

```
>>> str(MappingExample.A)  
'Alice'
```

__index__ () → int

Return the instance as an index.

Returns *int* – The index of the instance.

Examples

```
>>> test = ['first', 'second']  
>>> test[MappingExample.B]  
'second'
```

__int__ () → int

Return the instance as an integer.

Returns *int* – The index of the instance.

Examples

```
>>> int(MappingExample.A)  
0
```

class enumagic.**MappingMeta**

Bases: *enum.EnumMeta*

Mapping enum metaclass.

__call__ (value: Any) → *_ET*

Get an enum instance from the given value.

Parameters `value` (`Any`) – The value to look for in the members of the enum.

Returns `Enum` – An enum instance that corresponds to the value.

Raises `ValueError` – If the given value is invalid.

Examples

```
>>> MappingExample(0)
<MappingExample.A: (0, 'Alice')>
>>> MappingExample('Bob')
<MappingExample.B: (1, 'Bob')>
```

`__iter__()` `→ Iterator[Tuple[int, str]]`

Iterate over the values of the enum.

Yields `tuple` of `int`, `str` – The next tuple where the first element is the `index` of the enum instance and the second element is the `label` of the enum instance.

Examples

```
>>> list(MappingExample)
[(0, 'Alice'), (1, 'Bob')]
```

indices

Get the indices of the enum.

Type `tuple` of `int`

Examples

```
>>> MappingExample.indices
(0, 1)
```

items

Get a mapping of label/index pairs.

Type `dict` of `str` to `int`

Examples

```
>>> MappingExample.items
{'Alice': 0, 'Bob': 1}
```

labels

Get the labels of the enum.

Type `tuple` of `str`

Examples

```
>>> MappingExample.labels  
( 'Alice', 'Bob' )
```

class enumagic.StrEnum

Bases: `str`, `enum.Enum`

Enum class that be used as a string.

Examples

```
>>> class StrExample(StrEnum):  
...     A = 'Alice'  
>>> StrExample.A.upper()  
'ALICE'
```

__class__

alias of `enum.EnumMeta`

__str__ () → `str`

Return the instance as a string.

Returns `str` – The value of the instance.

Examples

```
>>> str(StrExample.A)  
'Alice'
```


CHAPTER 1

enumagic.django

Special enums for Django.

class `enumagic.django.ChoiceEnum`
Bases: `str`, `enum.Enum`
Enum class that can be used as Django `field choices`.

Examples

```
>>> from django.db.models import CharField, Model
>>> class ColorChoice(ChoiceEnum):
...     RED = '#F00'
...     GREEN = '#0F0'
...     BLUE = '#00F'
>>> class Color(Model):
...     color = CharField(choices=ColorChoice)
>>> example = Color(color=ColorChoice.RED)
>>> example.get_color_display()
'#F00'
```

do_not_call_in_templates = True
Prevent the Django `template system` from calling the enum.

__class__
alias of `enumagic.django.ChoiceMeta`

__str__ () → `str`
Return the instance as a string.

Returns `str` – The name of the instance.

Examples

```
>>> str(ColorChoice.BLUE)
'BLUE'
```

__eq__ (*other: Any*) → bool

Check whether the objects are equal.

Parameters *other* (*Any*) – Another object.

Returns *bool* – True if the objects are equal as strings, False otherwise.

Examples

```
>>> ColorChoice.GREEN == 'GREEN'
True
```

class enumagic.django.ChoiceMeta

Bases: *enumagic.IterMeta*

Choice enum metaclass.

__getitem__ (*name: str*) → str

Get the value of an enum member.

Parameters *name* (*str*) – The name of the item.

Returns *str* – The value of the instance.

Examples

```
>>> ColorChoice['GREEN']
'#0F0'
```

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