
Django utils2 Documentation

Release 2.9.0

Rick van Hattem

Jan 06, 2021

Contents

1	Introduction	3
1.1	Install	3
1.2	Usage	4
1.3	Links	4
2	django_utils package	5
2.1	Subpackages	5
2.1.1	django_utils.management package	5
2.1.1.1	Subpackages	5
2.1.1.1.1	django_utils.management.commands package	5
2.1.1.1.1.1	Submodules	5
2.1.1.1.1.2	django_utils.management.commands.admin_autogen module . . .	5
2.1.1.1.1.3	django_utils.management.commands.base_command module . . .	5
2.1.1.1.1.4	django_utils.management.commands.settings module	6
2.1.1.1.1.5	Module contents	6
2.1.1.2	Module contents	6
2.1.2	django_utils.templatetags package	6
2.1.2.1	Submodules	6
2.1.2.2	django_utils.templatetags.debug module	6
2.1.2.3	Module contents	9
2.2	Submodules	9
2.3	django_utils.base_models module	9
2.4	django_utils.choices module	11
2.4.1	Usage	11
2.4.1.1	Example with explicit values:	11
2.4.1.2	Example with implicit values:	12
2.5	django_utils.fields module	14
2.6	django_utils.queryset module	15
2.7	django_utils.utils module	15
2.8	django_utils.view_decorators module	15
2.9	django_utils.views module	15
2.10	Module contents	16
3	Indices and tables	17
Python Module Index		19

Contents:

CHAPTER 1

Introduction

Travis status:

Coverage:

Django Utils is a collection of small Django helper functions, utilities and classes which make common patterns shorter and easier. It is by no means a complete collection but it has served me quite a bit in the past and I will keep extending it.

Examples are:

- Enum based choicefields
- Models with automatic `__str__`, `__unicode__` and `__repr__` functions based on names and/or slugs using simple mixins.
- Models with automatic `updated_at` and `created_at` fields
- Models with automatic slugs based on the `name` property.
- Iterating through querysets in predefined chunks to prevent out of memory errors

The library depends on the Python Utils library.

Documentation is available at: <http://django-utils-2.readthedocs.io/en/latest/>

1.1 Install

To install:

1. Run `pip install django-utils2` or execute `python setup.py install` in the source directory
2. Add `django_utils` to your `INSTALLED_APPS`

If you want to run the tests, run `py.test` (requirements in `tests/requirements.txt`)

1.2 Usage

To enable easy to use choices which are more convenient than the Django 3.0 choices system you can use this:

```
from django_utils import choices

# For manually specifying the value (automatically detects `str`, `int` and `float`):
class Human(models.Model):
    class Gender(choices.Choices):
        MALE = 'm'
        FEMALE = 'f'
        OTHER = 'o'

    gender = models.CharField(max_length=1, choices=Gender)

# To define the values as `male` implicitly:
class Human(models.Model):
    class Gender(choices.Choices):
        MALE = choices.Choice()
        FEMALE = choices.Choice()
        OTHER = choices.Choice()

    gender = models.CharField(max_length=1, choices=Gender)

# Or explicitly define them
class Human(models.Model):
    class Gender(choices.Choices):
        MALE = choices.Choice('m', 'male')
        FEMALE = choices.Choice('f', 'female')
        OTHER = choices.Choice('o', 'other')

    gender = models.CharField(max_length=1, choices=Gender)
```

A PostgreSQL ENUM field will be coming soon to automatically facilitate the creation of the enum if needed.

1.3 Links

- **Documentation**
 - <http://django-utils-2.readthedocs.org/en/latest/>
- **Source**
 - <https://github.com/WoLpH/django-utils>
- **Bug reports**
 - <https://github.com/WoLpH/django-utils/issues>
- **Package homepage**
 - <https://pypi.python.org/pypi/django-utils2>
- **My blog**
 - <http://w.wol.ph/>

CHAPTER 2

django_utils package

2.1 Subpackages

2.1.1 django_utils.management package

2.1.1.1 Subpackages

2.1.1.1.1 django_utils.management.commands package

2.1.1.1.1.1 Submodules

2.1.1.1.1.2 django_utils.management.commands.admin_autogen module

```
class django_utils.management.commands.admin_autogen.Command
    Bases: django_utils.management.commands.base_command.CustomBaseCommand
    handle(*args, **kwargs)
```

2.1.1.1.3 django_utils.management.commands.base_command module

```
class django_utils.management.commands.base_command.CustomAppCommand
    Bases: django_utils.management.commands.base_command.CustomBaseCommand,
            django.core.management.base.AppCommand
class django_utils.management.commands.base_command.CustomBaseCommand
    Bases: django.core.management.base.BaseCommand, python_utils.logger.Logged
    create_logger()
    handle(*args, **kwargs)
    loggers = ()
```

2.1.1.1.4 django_utils.management.commands.settings module

```
class django_utils.management.commands.settings.Command
    Bases: django_utils.management.commands.base_command.CustomBaseCommand

    add_arguments(parser)
    can_import_settings = True
    handle(*args, **options)

    help = 'Get a list of the current settings, any arguments given will be\n used to match'
    output_types = ['pprint', 'print', 'json', 'csv']
    render_output(data, output_type='pprint', show_keys=False, **options)
    requires_model_validation = False

django_utils.management.commands.settings.json_default(obj)
```

2.1.1.1.5 Module contents

2.1.1.2 Module contents

2.1.2 django_utils.templatetags package

2.1.2.1 Submodules

2.1.2.2 django_utils.templatetags.debug module

```
class django_utils.templatetags.debug.Formatter(max_depth=3)
    Bases: django_utils.templatetags.debug._Formatter

    MAX_LENGTH = 100
    MAX_LENGTH_DOTS = 3

    format(value, depth, show_protected, show_special)
```

Call the formatter with the given value to format and optional depth

```
>>> formatter = Formatter()
>>> class Eggs: pass
>>> formatter(Eggs)
'<Eggs {}>'
```

`format_datetime`(value, depth, show_protected, show_special)

Format a date

Parameters

- `value` – a date to format
- `depth` – the current depth

`Returns` a formatted string

```
>>> formatter = Formatter()
>>> formatter(datetime.date(2000, 1, 2))
'<date:2000-01-02>'
>>> formatter(datetime.datetime(2000, 1, 2, 3, 4, 5, 6))
'<datetime:2000-01-02 03:04:05.000006>'
```

format_dict (*value, depth, show_protected, show_special*)

Format a string

Parameters

- **value** – a str value to format
- **depth** – the current depth

Returns a formatted string

```
>>> formatter = Formatter()
>>> formatter({'a': 1, 'b': 2}, 5)
'{a: 1, b: 2}'
```

format_int (*value, depth, show_protected, show_special*)

Format an integer/long

Parameters

- **value** – an int/long to format
- **depth** – the current depth

Returns a formatted string

```
>>> formatter = Formatter()
>>> str(formatter(1, 0))
'1'
>>> formatter(1, 1)
'1'
```

format_list (*value, depth, show_protected, show_special*)

Format a string

Parameters

- **value** – a list to format
- **depth** – the current depth

Returns a formatted string

```
>>> formatter = Formatter()
>>> formatter(list(range(5)))
'[0, 1, 2, 3, 4]'
```

format_model (*value, depth, show_protected, show_special*)

Format a string

Parameters

- **value** – a str value to format
- **depth** – the current depth

Returns a formatted string

```
>>> formatter = Formatter()
>>> from django.contrib.auth.models import User
>>> user = User()
>>> del user.date_joined
>>> str(formatter(user, 5, show_protected=False)[:30])
'<User {email: , first_name: , '
```

`format_object` (*value, depth, show_protected, show_special*)

Format an object

Parameters

- **value** – an object to format
- **depth** – the current depth

Returns a formatted string

```
>>> formatter = Formatter()
>>> original_max_length = formatter.MAX_LENGTH
>>> formatter.MAX_LENGTH = 50
```

```
>>> class Spam(object):
...     x = 1
...     _y = 2
...     __z = 3
...     __hidden__ = 4
>>> spam = Spam()
```

```
>>> str(formatter(spam, show_protected=True, show_special=True))
'<Spam {x: 1, _Spam__hidden__: 4, _Spam__z: 3, __dict__:...}>'
>>> str(formatter(spam, show_protected=False, show_special=False))
'<Spam {x: 1}>'
```

```
>>> formatter.MAX_LENGTH = original_max_length
```

`format_str` (*value, depth, show_protected, show_special*)

Format a string

Parameters

- **value** – a str value to format
- **depth** – the current depth

Returns a formatted string

```
>>> formatter = Formatter()
>>> str(formatter('test'))
'test'
>>> str(formatter(six.b('test')))
'test'
```

`format_unicode` (*value, depth, show_protected, show_special*)

Format a string

Parameters

- **value** – a unicode value to format
- **depth** – the current depth

Returns a formatted string

```
>>> formatter = Formatter()
>>> original_max_length = formatter.MAX_LENGTH
>>> formatter.MAX_LENGTH = 10
>>> str(formatter('x' * 11))
'xxxxxxxx...'
>>> formatter.MAX_LENGTH = original_max_length
```

`django_utils.templatetags.debug.debug(value, max_depth=3)`

Debug template filter to print variables in a pretty way

```
>>> str(debug(123).strip())
'<pre style="border: 1px solid #fcc; background-color: #ccc;">123</pre>'
```

2.1.2.3 Module contents

2.2 Submodules

2.3 django_utils.base_models module

```
class django_utils.base_models.CreatedAtModelBase(*args, **kwargs)
Bases: django_utils.base_models.ModelBase

class Meta

    abstract = False
    db_table = 'django_utils_created_at_model_base'

created_at
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

get_next_by_created_at(**morekwargs)
get_next_by_updated_at(**morekwargs)
get_previous_by_created_at(**morekwargs)
get_previous_by_updated_at(**morekwargs)

updated_at
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class django_utils.base_models.ModelBase(*args, **kwargs)
Bases: django.db.models.base.Model

class Meta

    abstract = False
    db_table = 'django_utils_model_base'
```

```
class django_utils.base_models.ModelBaseMeta
Bases: django.db.models.base.ModelBase

Model base with more readable naming convention

Example: Assuming the model is called app.FooBarObject

Default Django table name: app_foobarobject Table name with this base: app_foo_bar_object

class django_utils.base_models.NameCreatedAtModelBase (*args, **kwargs)
Bases: django_utils.base_models.NameModelBase, django_utils.base_models.CreatedAtModelBase

class Meta

    abstract = False

    db_table = 'django_utils_name_created_at_model_base'

    get_next_by_created_at (**morekwargs)
    get_next_by_updated_at (**morekwargs)
    get_previous_by_created_at (**morekwargs)
    get_previous_by_updated_at (**morekwargs)

class django_utils.base_models.NameMixin
Bases: object

Mixin to automatically get a unicode and repr string base on the name

>>> x = NameMixin()
>>> x.pk = 123
>>> x.name = 'test'
>>> repr(x)
'<NameMixin[123]: test>'
>>> str(x)
'test'
>>> str(six.text_type(x))
'test'

class django_utils.base_models.NameModelBase (*args, **kwargs)
Bases: django_utils.base_models.NameMixin, django_utils.base_models.ModelBase

class Meta

    abstract = False

    db_table = 'django_utils_name_model_base'

name
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is executed.

class django_utils.base_models.SlugCreatedAtModelBase (*args, **kwargs)
Bases: django_utils.base_models.SlugModelBase, django_utils.base_models.CreatedAtModelBase

class Meta

    abstract = False
```

```

db_table = 'django_utils_slug_created_at_model_base'
get_next_by_created_at(**morekwargs)
get_next_by_updated_at(**morekwargs)
get_previous_by_created_at(**morekwargs)
get_previous_by_updated_at(**morekwargs)

class django_utils.base_models.SlugMixin
Bases: django_utils.base_models.NameMixin

Mixin to automatically slugify the name and add both a name and slug to the model

>>> x = NameMixin()
>>> x.pk = 123
>>> x.name = 'test'
>>> repr(x)
'<NameMixin[123]: test>'
>>> str(x)
'test'
>>> str(six.text_type(x))
'test'

class Meta
Bases: object

unique_together = ('slug',)

save(*args, **kwargs)

class django_utils.base_models.SlugModelBase(*args, **kwargs)
Bases: django_utils.base_models.SlugMixin, django_utils.base_models.NameModelBase

class Meta

abstract = False
db_table = 'django_utils_slug_model_base'

slug
A wrapper for a deferred-loading field. When the value is read from this object the first time, the query is
executed.

```

2.4 django_utils.choices module

2.4.1 Usage

Create a `Choices` class and add `Choice` objects to the class to define your choices.

2.4.1.1 Example with explicit values:

The normal Django version:

```
class Human(models.Model):
    GENDER = (
        ('m', 'Male'),
        ('f', 'Female'),
        ('o', 'Other'),
    )
    gender = models.CharField(max_length=1, choices=GENDER)
```

The Django Utils Choices version:

```
from django_utils import choices

class Human(models.Model):
    class Gender(choices.Choices):
        Male = choices.Choice('m')
        Female = choices.Choice('f')
        Other = choices.Choice('o')

    gender = models.CharField(max_length=1, choices=Gender)
```

To reference these properties:

```
Human.create(gender=Human.Gender.Male)
```

2.4.1.2 Example with implicit values:

The normal Django version:

```
class SomeModel(models.Model):
    SOME_ENUM = (
        (1, 'foo'),
        (2, 'bar'),
        (3, 'spam'),
        (4, 'eggs'),
    )
    enum = models.IntegerField(choices=SOME_ENUM, default=1)
```

The Django Utils Choices version:

```
from django_utils import choices

class SomeModel(models.Model):
    class Enum(choices.Choices):
        Foo = choices.Choice()
        Bar = choices.Choice()
        Spam = choices.Choice()
        Eggs = choices.Choice()

    enum = models.IntegerField(
        choices=Enum, default=Enum.Foo)
```

To reference these properties:

```
SomeModel.create(enum=SomeModel.Enum.Spam)
```

```
class django_utils.choices.Choice(value=None, label=None)
Bases: object
```

The choice object has an optional label and value. If the value is not given an autoincrementing id (starting from 1) will be used

```
>>> choice = Choice('value', 'label')
>>> choice
<Choice[1]:label>
>>> str(choice)
'label'
```

```
>>> choice = Choice()
>>> choice
<Choice[2]:None>
>>> str(choice)
'None'
```

```
deconstruct()
order = 0

class django_utils.choices.Choices
Bases: object
```

The choices class is what you should inherit in your Django models

```
>>> choices = Choices()
>>> choices.choices[0]
Traceback (most recent call last):
...
KeyError: 'Key 0 does not exist'
>>> choices.choices
OrderedDict()
>>> str(choices.choices)
'OrderedDict()'
>>> choices.choices.items()
[]
>>> choices.choices.keys()
[]
>>> choices.choices.values()
[]
>>> list(choices)
[]
```

```
>>> class ChoiceTest(Choices):
...     a = Choice()
>>> choices = ChoiceTest()
>>> choices.choices.items()
[(0, <Choice[...]:a>)]
>>> choices.a
0
>>> choices.choices['a']
<Choice[...]:a>
>>> choices.choices[0]
<Choice[...]:a>
>>> choices.choices.keys()
[0]
>>> choices.choices.values()
['a']
>>> list(choices)
```

(continues on next page)

(continued from previous page)

```
[ (0, <Choice[...]:a>) ]
>>> list(ChoiceTest)
[(0, <Choice[...]:a>)]
```

```
choices = OrderedDict()

class django_utils.choices.ChoicesDict
Bases: object
```

The choices dict is an object that stores a sorted representation of the values by key and database value

```
items()
keys()
values()
```

```
class django_utils.choices.ChoicesMeta
Bases: type
```

The choices metaclass is where all the magic happens, this automatically creates a ChoicesDict to get a sorted list of keys and values

```
class django_utils.choices.LiteralChoices
Bases: django_utils.choices.Choices
```

Special version of the Choices class that uses the label as the value

```
>>> class Role(LiteralChoices):
...     admin = Choice()
...     user = Choice()
...     guest = Choice()
```

```
>>> Role.choices.values()
['admin', 'user', 'guest']
>>> Role.choices.keys()
['admin', 'user', 'guest']
```

```
>>> class RoleWithImplicitChoice(LiteralChoices):
...     ADMIN = 'admin'
...     USER = 'user'
...     GUEST = 'guest'
```

```
>>> Role.choices.values()
['admin', 'user', 'guest']
>>> Role.choices.keys()
['admin', 'user', 'guest']
>>> Role.admin
'admin'
```

```
choices = OrderedDict()
```

2.5 django_utils.fields module

```
class django_utils.fields.RecursiveField(field_name=None, parent_field='parent', default=None)
Bases: object
```

```
PREFIX = 'get_'

contribute_to_class(cls, name)

get(instance)
```

2.6 django_utils.queryset module

```
django_utils.queryset.queryset_iterator(queryset, chunksize=1000, getfunc=<built-in function getattr>)
```

” Iterate over a Django Queryset ordered by the primary key

This method loads a maximum of chunksize (default: 1000) rows in it’s memory at the same time while django normally would load all rows in it’s memory. Using the iterator() method only causes it to not preload all the classes.

Note that the implementation of the iterator does not support ordered query sets.

2.7 django_utils.utils module

```
django_utils.utils.to_json(request, data)
```

2.8 django_utils.view_decorators module

```
exception django_utils.view_decorators.UnknownViewResponseError
    Bases: django_utils.view_decorators.ViewError
```

```
exception django_utils.view_decorators.ViewError
    Bases: exceptions.Exception
```

```
django_utils.view_decorators.env(function=None, login_required=False, response_class=<class 'django.http.response.HttpResponse'>)
```

View decorator that automatically adds context and renders response

Keyword arguments: login_required – is everyone allowed or only authenticated users

Adds a RequestContext (request.context) with the following context items: name – current function name

Stores the template in request.template and assumes it to be in <app>/<view>.html

```
django_utils.view_decorators.json_default_handler(obj)
```

```
django_utils.view_decorators.permanent_redirect(url, *args, **kwargs)
```

```
django_utils.view_decorators.redirect(url='/', *args, **kwargs)
```

2.9 django_utils.views module

```
django_utils.views.error_403(request, *args, **kwargs)
```

```
django_utils.views.error_404(request, *args, **kwargs)
```

```
django_utils.views.error_500(request, *args, **kwargs)
```

2.10 Module contents

CHAPTER 3

Indices and tables

- genindex
- modindex
- search

Python Module Index

d

django_utils, 16
django_utils.base_models, 9
django_utils.choices, 11
django_utils.fields, 14
django_utils.management, 6
django_utils.management.commands, 6
django_utils.management.commands.admin_autogen,
 5
django_utils.management.commands.base_command,
 5
django_utils.management.commands.settings,
 6
django_utils.queryset, 15
django_utils.templatetags, 9
django_utils.templatetags.debug, 6
django_utils.utils, 15
django_utils.view_decorators, 15
django_utils.views, 15

Index

A

abstract (*django_utils.base_models.CreatedAtModelBase.Meta attribute*), 9
abstract (*django_utils.base_models.ModelBase.Meta attribute*), 9
abstract (*django_utils.base_models.NameCreatedAtModelBase.Meta attribute*), 10
abstract (*django_utils.base_models.NameModelBase.Meta attribute*), 10
abstract (*django_utils.base_models.SlugCreatedAtModelBase.Meta attribute*), 10
abstract (*django_utils.base_models.SlugModelBase.Meta attribute*), 11
add_arguments () (*django_utils.management.commands.settings.Command method*), 6

C

can_import_settings
Choice (class in *django_utils.choices*), 12
Choices (class in *django_utils.choices*), 13
choices (*django_utils.choices.Choices attribute*), 14
choices (*django_utils.choices.LiteralChoices attribute*), 14
ChoicesDict (class in *django_utils.choices*), 14
ChoicesMeta (class in *django_utils.choices*), 14
Command (class in *django_utils.management.commands.admin_autogen*), 5
Command (class in *django_utils.management.commands.settings*), 6
contribute_to_class ()
create_logger () (*django_utils.management.commands.base_command.CustomBaseCommand method*), 5
created_at (*django_utils.base_models.CreatedAtModelBase attribute*), 9
CreatedAtModelBase (class in *django_utils.base_models*), 9

CreatedAtModelBase.Meta (class in *django_utils.base_models*), 9
CustomAppCommand (class in *django_utils.management.commands.base_command*), 5
CustomBaseCommand (class in *django_utils.management.commands.base_command*), 5
db_table (*django_utils.base_models.CreatedAtModelBase.Meta attribute*), 9
db_table (*django_utils.base_models.ModelBase.Meta attribute*), 9
db_table (*django_utils.base_models.NameCreatedAtModelBase.Meta attribute*), 10
db_table (*django_utils.base_models.NameModelBase.Meta attribute*), 10
db_table (*django_utils.base_models.SlugCreatedAtModelBase.Meta attribute*), 10
db_table (*django_utils.base_models.SlugModelBase.Meta attribute*), 11
db_table (*django_utils.base_models.NameCreatedAtModelBase.Meta attribute*), 10
db_table (*django_utils.base_models.NameModelBase.Meta attribute*), 10
db_table (*django_utils.base_models.SlugModelBase.Meta attribute*), 11
debug () (in module *django_utils.templatetags.debug*), 9
deconstruct () (method of *django_utils.choices.Choice*), 13
django_utils (module), 16
django_utils.base_models (module), 9
django_utils.choices (module), 11
django_utils.fields (module), 14
django_utils.management (module), 6
django_utils.management.commands (module), 6
django_utils.management.commands.admin_autogen (module), 5
django_utils.management.commands.base_command (module), 5
django_utils.management.commands.base_command (module), 5
django_utils.management.commands.settings (module), 6
django_utils.queryset (module), 15

D

`django_utils.templatetags (module), 9`
`django_utils.templatetags.debug (module), 6`
`django_utils.utils (module), 15`
`django_utils.view_decorators (module), 15`
`django_utils.views (module), 15`

E

`env () (in module django_utils.view_decorators), 15`
`error_403 () (in module django_utils.views), 15`
`error_404 () (in module django_utils.views), 15`
`error_500 () (in module django_utils.views), 15`

F

`format () (django_utils.templatetags.debug.Formatter method), 6`
`format_datetime () (django_utils.templatetags.debug.Formatter method), 6`
`format_dict () (django_utils.templatetags.debug.Formatter method), 7`
`format_int () (django_utils.templatetags.debug.Formatter method), 7`
`format_list () (django_utils.templatetags.debug.Formatter method), 7`
`format_model () (django_utils.templatetags.debug.Formatter method), 7`
`format_object () (django_utils.templatetags.debug.Formatter method), 8`
`format_str () (django_utils.templatetags.debug.Formatter method), 8`
`format_unicode () (django_utils.templatetags.debug.Formatter method), 8`
`Formatter (class in django_utils.templatetags.debug), 6`

G

`get () (django_utils.fields.RecursiveField method), 15`
`get_next_by_created_at () (django_utils.base_models.CreatedAtModelBase method), 9`
`get_next_by_created_at () (django_utils.base_models.NameCreatedAtModelBase method), 10`
`get_next_by_created_at () (django_utils.base_models.SlugCreatedAtModelBase method), 11`
`get_next_by_updated_at () (django_utils.base_models.CreatedAtModelBase method), 9`
`get_next_by_updated_at () (django_utils.base_models.NameCreatedAtModelBase method), 10`

`get_next_by_updated_at () (django_utils.base_models.SlugCreatedAtModelBase method), 11`
`get_previous_by_created_at () (django_utils.base_models.CreatedAtModelBase method), 9`
`get_previous_by_created_at () (django_utils.base_models.NameCreatedAtModelBase method), 10`
`get_previous_by_created_at () (django_utils.base_models.SlugCreatedAtModelBase method), 11`
`get_previous_by_updated_at () (django_utils.base_models.CreatedAtModelBase method), 9`
`get_previous_by_updated_at () (django_utils.base_models.NameCreatedAtModelBase method), 10`
`get_previous_by_updated_at () (django_utils.base_models.SlugCreatedAtModelBase method), 11`

H

`handle () (django_utils.management.commands.admin_autogen.Command method), 5`
`handle () (django_utils.management.commands.base_command.CustomCommand method), 5`
`handle () (django_utils.management.commands.settings.Command method), 6`
`help (django_utils.management.commands.settings.Command attribute), 6`

I

`items () (django_utils.choices.ChoicesDict method), 14`
`json_default () (in module django_utils.management.commands.settings), 6`
`json_default_handler () (in module django_utils.view_decorators), 15`

K

`keys () (django_utils.choices.ChoicesDict method), 14`

`LiteralChoices (class in django_utils.choices), 14`
`loggers (django_utils.management.commands.base_command.CustomButton attribute), 5`

M

`MAX_LENGTH (django_utils.templatetags.debug.Formatter attribute), 6`

MAX_LENGTH_DOTS (*django_utils.templatetags.debug.FormattedString* attribute), 6

ModelBase (*class in django_utils.base_models*), 9

ModelBase.Meta (*class in django_utils.base_models*), 9

ModelBaseMeta (*class in django_utils.base_models*), 9

SlugCreatedAtModelBase (*class in django_utils.base_models*), 10

SlugMixin (*class in django_utils.base_models*), 11

SlugMixin.Meta (*class in django_utils.base_models*), 11

SlugModelBase (*class in django_utils.base_models*), 11

SlugModelBase.Meta (*class in django_utils.base_models*), 11

name (*django_utils.base_models.NameModelBase* attribute), 10

NameCreatedAtModelBase (*class in django_utils.base_models*), 10

NameCreatedAtModelBase.Meta (*class in django_utils.base_models*), 10

NameMixin (*class in django_utils.base_models*), 10

NameModelBase (*class in django_utils.base_models*), 10

NameModelBase.Meta (*class in django_utils.base_models*), 10

order (*django_utils.choices.Choice* attribute), 13

output_types (*django_utils.management.commands.settings.Command* attribute), 6

VIEWERFOR, 15

P

permanent_redirect () (*in module django_utils.view_decorators*), 15

PREFIX (*django_utils.fields.RecursiveField* attribute), 14

Q

queryset_iterator () (*in module django_utils.queryset*), 15

R

RecursiveField (*class in django_utils.fields*), 14

redirect () (*in module django_utils.view_decorators*), 15

render_output () (*django_utils.management.commands.settings.Command* method), 6

requires_model_validation (*django_utils.management.commands.settings.Command* attribute), 6

S

save () (*django_utils.base_models.SlugMixin* method), 11

slug (*django_utils.base_models.SlugModelBase* attribute), 11

SlugCreatedAtModelBase (*class in django_utils.base_models*), 10