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Flask-Breadcrumbs is a Flask extension that adds support for generating site breadcrumb navigation.
Installation

Flask-Breadcrumbs is on PyPI so all you need is:

```
$ pip install Flask-Breadcrumbs
```

The development version can be downloaded from its page at GitHub.

```
$ git clone https://github.com/inveniosoftware/flask-breadcrumbs.git
$ cd flask-breadcrumbs
$ python setup.py develop
$ ./run-tests.sh
```
Requirements

Flask-Breadcrumbs has the following dependencies:

- Flask-Menu
- Flask
- six

Flask-Breadcrumbs requires Python version 2.6, 2.7 or 3.3+

Usage

This guide assumes that you have successfully installed Flask-Breadcrumbs package already. If not, please follow the Installation instructions first.

Simple Example

Here is a simple Flask-Breadcrumbs usage example:

```python
from flask import Flask
from flask_breadcrumbs import Breadcrumbs, register_breadcrumb

app = Flask(__name__)

# Initialize Flask-Breadcrumbs
Breadcrumbs(app=app)

@app.route('/')
@register_breadcrumb(app, '.', 'Home')
def index():
    pass

if __name__ == '__main__':
    app.run(debug=True)
```

Save this as app.py and run it using your Python interpreter.

```
$ python app.py
* Running on http://127.0.0.1:5000/
```

Templating

By default, a proxy object to current_breadcrumbs is added to your Jinja2 context as breadcrumbs to help you with creating navigation bar. For example:

```html
<div>
    {% for breadcrumb in breadcrumbs %}
        <a href="{{ breadcrumb.url }}">{{ breadcrumb.text }}<a/>
            <!-- '/' if not loop.last -->
    {%- endfor %}
</div>
```
Variable rules

For routes with a variable part, a dynamic list constructor can be used to create a more meaningful breadcrumb. In the example below, the User’s primary key is used to create a breadcrumb displaying their name.

```python
from flask import request, render_template
def view_user_dlc(*args, **kwargs):
    user_id = request.view_args['user_id']
    user = User.query.get(user_id)
    return [{'text': user.name, 'url': user.url}]

@app.route('/users/<int:user_id>')
@breadcrumbs.register_breadcrumb(app, '.user.id', '',
    dynamic_list_constructor=view_user_dlc)
def view_user(user_id):
    user = User.query.get(user_id)
    return render_template('user.html', user=user)
```

Blueprint Support

The most important part of a modular Flask application is Blueprint. You can create one for your application somewhere in your code and decorate your view function, like this:

```python
from flask import Blueprint
from flask_breadcrumbs import register_breadcrumb

account = Blueprint('account', __name__, url_prefix='/account')

@account.route('/')
@register_breadcrumb(account, '.', 'Your account')
def index():
    pass
```

Combining Multiple Blueprints

Sometimes you want to combine multiple blueprints and organise the navigation to certain hierarchy. This can be achieved by using the function `default_breadcrumb_root()`.

```python
from flask import Blueprint
from flask_breadcrumbs import default_breadcrumb_root, register_breadcrumb

social = Blueprint('social', __name__, url_prefix='/social')
default_breadcrumb_root(social, '.account')

@social.route('/list')
@register_breadcrumb(social, '.list', 'Social networks')
def list():
    pass
```

As a result of this, your `current_breadcrumbs` object with contain list with 3 items during processing request for /social/list.
Advanced Examples

Use with MethodViews and Blueprints

No routes are used in this example. Take note of the odd syntax for explicitly calling the decorator.

```python
from flask import Flask, render_template, Blueprint
from flask_breadcrumbs import Breadcrumbs, register_breadcrumb
from flask.views import MethodView

app = Flask(__name__)
Breadcrumbs(app=app)
bp = Blueprint('bp', __name__,)

class LevelOneView(MethodView):
    def get(self):
        return render_template('template.html')

class LevelTwoView(MethodView):
    def get(self):
        return render_template('template.html')

# Define the view by calling the decorator on its own,
# followed by the view inside parenthesis
level_one_view = register_breadcrumb(bp, 'breadcrumbs.', 'Level One')
    LevelOneView.as_view('first')
bp.add_url_rule('/one', view_func=level_one_view)  # Add the rule to the blueprint

level_two_view = breadcrumbs.register_breadcrumb(bp, 'breadcrumbs.two', 'Level Two')
    LevelOneView.as_view('second')
bp.add_url_rule('/two', view_func=level_two_view)

app.register_blueprint(bp)
```
API

If you are looking for information on a specific function, class or method, this part of the documentation is for you.

Flask extension

class flask_breadcrumbs.Breadcrumbs(app=None, init_menu=True)

Breadcrumb organizer for a Flask application.

    static breadcrumbs()
    
    Backend function for breadcrumbs proxy.

    Returns A list of breadcrumbs.

    static breadcrumbs_context_processor()
    
    Add variable breadcrumbs to template context.

    It contains the list of menu entries to render as breadcrumbs.

    static current_path()
    
    Determine current location in menu hierarchy.

    Backend function for current_path proxy.

    static get_path(app)
    
    Return path to root of application’s or bluerpint’s branch.

    init_app(app, *args, **kwargs)
    
    Configure an application. This registers a context_processor.

    Parameters app (flask.Flask) – The flask.Flask object to configure.

Decorators

flask_breadcrumbs.register_breadcrumb(app, path, text, order=0, endpoint_arguments_constructor=None, dynamic_list_constructor=None)

Decorate endpoints that should be displayed as a breadcrumb.

Parameters

    • app – Application or Blueprint which owns the function.
    • path – Path to this item in menu hierarchy (‘breadcrumbs.’ is automatically added).
    • text – Text displayed as link.
• **order** – Index of item among other items in the same menu.

• **endpoint_arguments_constructor** – Function returning dict of arguments passed to url_for when creating the link.

• **dynamic_list_constructor** – Function returning a list of breadcrumbs to be displayed by this item. Every object should have ‘text’ and ‘url’ properties/dict elements.

```python
flask_breadcrumbs.default_breadcrumb_root(app, path)
```

Register default breadcrumb path for all endpoints in this blueprint.

**Parameters**

- **path** – Path in the menu hierarchy. It should start with ‘.’ to be relative to breadcrumbs root.

**Proxies**

```python
flask_breadcrumbs.current_breadcrumbs
```

List of breadcrumbs for current request.

```python
flask_breadcrumbs.breadcrumbs_root_path
```

Name of breadcrumbs root path.

**Changelog**

Here you can see the full list of changes between each Flask-Breadcrumbs release.

**Version 0.4.0 (released 2016-07-01)**

- Removes support for Python 2.6.
- Adds an advanced example using MethodViews and Blueprints. (#23)
- Amends deprecated import of Flask extensions via `flask.ext`. (#29)

**Version 0.3.0 (released 2015-03-16)**

- Improved factory pattern support. (#19)
- Added example of using a dynamic list constructor with variables. (#16 #17)
- Allows usage of ordered breadcrumbs as menu. (#15)

**Version 0.2.0 (released 2014-11-05)**

- The Flask-Breadcrumbs extension is now released under more permissive Revised BSD License. (#11)
- Documentation improvements. (#13)
- Extension initialization improvements. (#12)
- Support for Python 3.4. (#5)

**Version 0.1.0 (released 2014-07-24)**

- Initial public release
## Contributing

Bug reports, feature requests, and other contributions are welcome. If you find a demonstrable problem that is caused by the code of this library, please:

1. Search for already reported problems.
2. Check if the issue has been fixed or is still reproducible on the latest master branch.
3. Create an issue with a test case.

If you create a feature branch, you can run the tests to ensure everything is operating correctly:

```
$ ./run-tests.sh
```

## License

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