

Basic Templates and Views

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In This Module

- **Project: “Thermos”**
 - Social bookmarking site
- **An index page**
 - Generate HTML with **Jinja2** template engine
 - Add styling (CSS) using **static content**
- **A simple form for adding bookmarks**
 - Just HTML, no back-end logic yet
 - Uniform styling for both pages with **template inheritance**
 - Create maintainable links with **url_for**
- **Custom error pages**

Creating and Running the Flask Application



Application object

```
app = Flask(__name__)
```

Run with debugging

```
app.run(debug=True)
```

Rendering a Template

```
def render_template(template_name_or_list, **context):  
    """Renders a template from the template folder with the given  
    context.  
  
    :param template_name_or_list: the name of the template to be  
                                  rendered, or an iterable with template names  
                                  the first one existing will be rendered  
    :param context: the variables that should be available in the  
                    context of the template.  
    """
```

- **Templates in templates/ directory**
- **Don't forget to use return**

Jinja2 Basics

`{{ var }}` renders value of var

`render_template (index.html, var="hello")`

Dot notation: `{{ var.x }}`

Lookup an *attribute* x *on* var

Lookup an *item* x *in* var

Not found? Empty output

We can call functions on objects as well:

`{{ var.fn() }}`

Can pass arguments



Generating Maintainable Links

- **`url_for(view)`**
 - Generates a URL to the given view
 - Can pass arguments to the view
- **`url_for` is available in template context**
- **Why use `url_for` instead of a simple link?**
 - More maintainable: URL is only defined in `@app.route` call
 - Handles escaping of special characters and Unicode data transparently

Template Inheritance

HTML



```
{% extends "base.html" %}
```

Extend a base template

Must be first tag

```
{% block content %}...{% endblock %}
```

Defines a block that can be overridden by child templates

Resources



<http://jinja.pocoo.org/>

(<http://goo.gl/xthhda>)

<http://www.initializr.com>

(<http://goo.gl/jJTUQ5>)

<http://flask.pocoo.org/docs/quickstart/#url-building>

(<http://goo.gl/hytwjj>)

<https://pypi.python.org/pypi/Flask-Bootstrap>

(<http://goo.gl/CzXqyT>)

Summary

- Running Flask in debug mode
- Templates: Jinja 2
- Calling `render_template()`
- `{{ }}` for variables and functions
- Template inheritance with `{% block %}` and `{% extends %}`
- Including static content
- Using `url_for`