

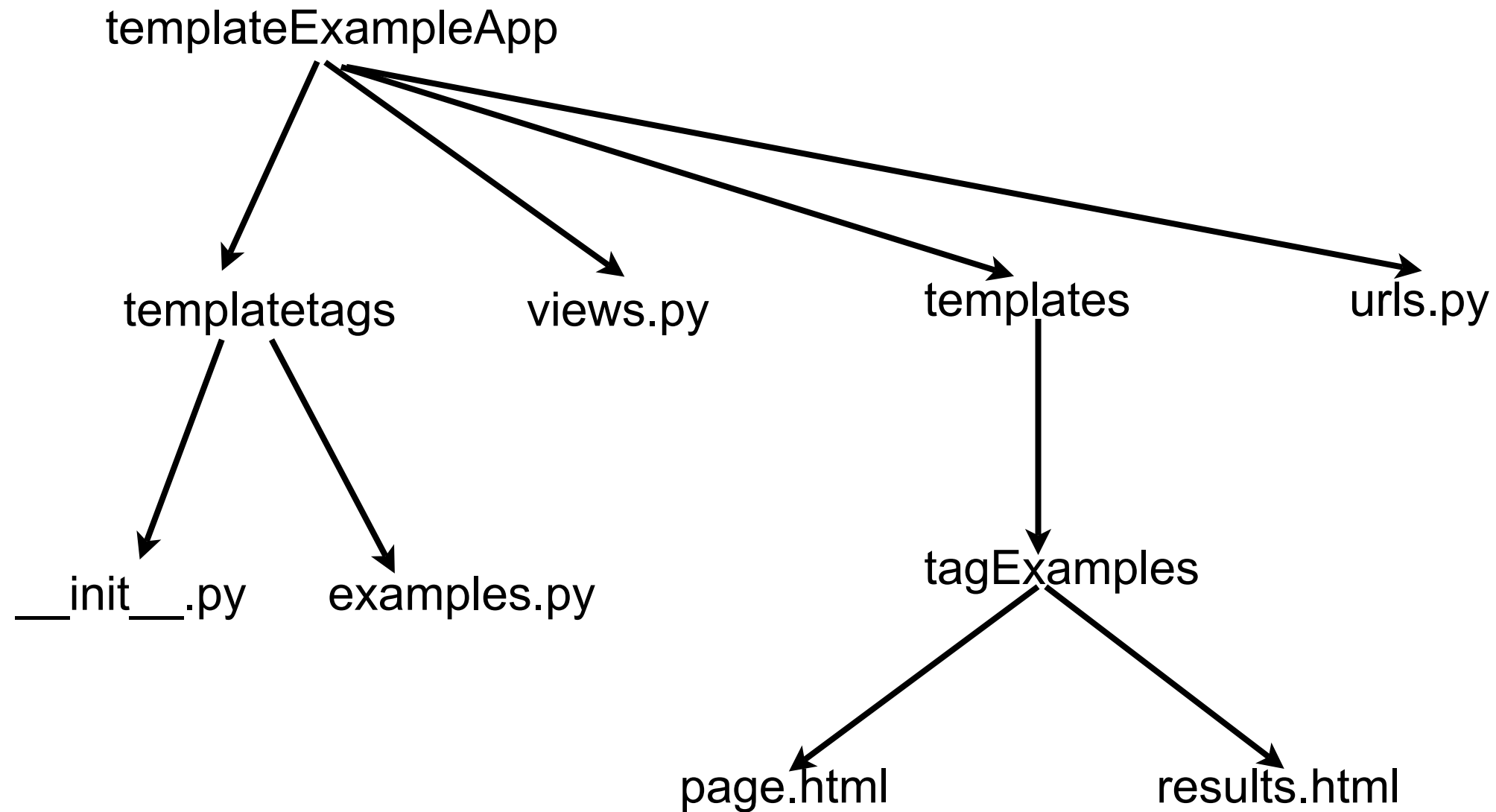
CS 683 Emerging Technologies
Fall Semester, 2006
Doc 11 Django Tags & Filters
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References

The Django template language: For Python programmers,
http://www.djangoproject.com/documentation/templates_python/

Example Structure



urls.py

```
from django.conf.urls.defaults import *  
  
urlpatterns = patterns("",  
    (r'^tagExamples/$', 'cs683.template.views.showTags'),  
)
```

templateExampleApp/views.py

```
from django.shortcuts import render_to_response
from cs683.polls.models import Poll

def showTags(request):
    poll = Poll.objects.get(id=1)
    return render_to_response('tagExamples/page.html',
                              {'cat': 'CAT', 'url': 'http://www.sdsu.edu/', 'poll': poll})
```

Custom Filter

Python function

One or two arguments

Should not raise exceptions

Can return any type

Receiver is template variable

Example

```
templateExampleApp/templatetags/examples.py
```

```
from django import template
```

```
register = template.Library()
```

```
def linkTo(text, url):  
    return '<a href=' + url + '>' + text + '</a>'
```

```
def lower(text):  
    return text.lower()
```

```
register.filter('linkTo', linkTo)  
register.filter('sampleLower', lower)
```

```
templateExampleApp/tagExamples/page.html
```

```
{% load examples %}  
<p>Filter Examples</p>  
{{ cat|sampleLower}}<br/>
```

```
{{ cat|linkTo:"foo/bar"}}<br/>  
{{ cat|linkTo:url}}<br/>
```

Simple Tags

Any number of arguments

Arguments strings or template variables

Must return a string

Exceptions not useful to user

Relevant part of templatetags/examples.py

```
from django import template
```

```
register = template.Library()
```

```
def sampleTag(a, b):  
    return b + a
```

```
register.simple_tag(sampleTag)
```

```
import datetime
```

```
def simpleCurrentTime(time_format):  
    return datetime.datetime.now().strftime(time_format)
```

```
register.simple_tag(simpleCurrentTime)
```

page.html

```
{% load examples %}
```

```
<p>Filter Examples</p>
```

```
{{ cat|sampleLower}}<br/>
```

```
{{ cat|linkTo:"foo/bar"}}<br/>
```

```
{{ cat|linkTo:url}}<br/>
```

```
<p>Simple tag - 2 arguments</p>
```

```
{% sampleTag "cat" "dog"%}
```

```
<p>The time is {% simpleCurrentTime "%Y-%m-%d %l:%M %p" %}.</p>
```

Inclusion Tag

Displays data by rendering another template

Relevant part of templatetags/examples.py

```
from django import template
```

```
register = template.Library()
```

```
def show_results(poll):  
    choices = poll.choice_set.all()  
    return {'choices': choices}
```

```
register.inclusion_tag('tagExamples/results.html')(show_results)
```

All of page.html

```
{% load examples %}
```

```
<p>Filter Examples</p>
```

```
{{ cat|sampleLower}}<br/>
```

```
{{ cat|linkTo:"foo/bar"}}<br/>
```

```
{{ cat|linkTo:url}}<br/>
```

```
<p>Simple tag - 2 arguments</p>
```

```
{% sampleTag "cat" "dog"%}
```

```
<p>The time is {% simpleCurrentTime "%Y-%m-%d %l:%M %p" %}.</p>
```

```
<p>Choices</p>
```

```
{% show_results poll %}
```

Rendered output

Filter Examples

cat

[CAT](#)

[CAT](#)

Simple tag - 2 arguments

dogcat

The time is 2006-10-05 04:25 PM.

Choices

- Yes
- No
- Who is Django Reinhard?

Complex Tags

Read template variables directly

Write to template variable

Interact with tag parser

http://www.djangoproject.com/documentation/templates_python/