

Урок 15

Дебагер django

The screenshot shows the Django Debug Toolbar (DDT) interface. The main window title is "Select user to change | Django site admin". The toolbar has a tab "Select user to change | Django ..." and a yellow header "SQL queries from 1 connection". Below the header, it shows "default" and "5.02 ms (5 queries)". The main panel displays a table of SQL queries with columns: Query, Timeline, Time (ms), and Action. The queries are as follows:

Query	Timeline	Time (ms)	Action
<code>SELECT ... FROM "django_session" WHERE ("django_session"."session_key" = 'n30ikmlcaz0e7j1hte50a4x01z5hwt6c' AND "django_session"."expire_date" > '2013-12-21 03:26:09.232862')</code>	[Timeline bar]	1.71	Sel Expl
<code>SELECT ... FROM "auth_user" WHERE "auth_user"."id" = 1</code>	[Timeline bar]	1.01	Sel Expl
<code>SELECT ... FROM "auth_group"</code>	[Timeline bar]	0.43	Sel Expl
<code>SELECT ... FROM "auth_user"</code>	[Timeline bar]	0.68	Sel Expl
<code>SELECT ... FROM "auth_user" ORDER BY "auth_user"."username" ASC, "auth_user"."id" DESC</code>	[Timeline bar]	1.19	Sel Expl

On the right side, there is a sidebar with various tools: Hide, Versions (Django 1.6), Time (117 status, CPU: 119.44ms (126.50ms)), Settings, Headers, Request, SQL (5 queries in 5.02ms), Templates, and Static files (10 files used).

Устанавливаем дебагер Django.

```
pip install django-debug-toolbar

INSTALLED_APPS = (
    # ...

    'django.contrib.staticfiles',
    'debug_toolbar',
)

MIDDLEWARE_CLASSES = (
    'debug_toolbar.middleware.DebugToolbarMiddleware',
)

from django.conf import settings
from django.conf.urls import include, patterns, url

if settings.DEBUG:
    import debug_toolbar
    urlpatterns += patterns('',
        url(r'^__debug__/', include(debug_toolbar.urls)),
    )
```

REST API на основе tastypie.

```
sudo pip install django-tastypie
```

```
from tastypie.utils.timezone import now
from django.contrib.auth.models import User
from django.db import models
from django.utils.text import slugify
```

```
class Entry(models.Model):
    user = models.ForeignKey(User)
    pub_date = models.DateTimeField(default=now)
    title = models.CharField(max_length=200)
    slug = models.SlugField()
    body = models.TextField()

    def __unicode__(self):
        return self.title

    def save(self, *args, **kwargs):
        # For automatic slug generation.
        if not self.slug:
            self.slug = slugify(self.title)[:50]
        return super(Entry, self).save(*args, **kwargs)
```

Creating Resources

```
# myapp/api.py
```

```
from tastypie.resources import ModelResource
```

```
from myapp.models import Entry
```

```
class EntryResource(ModelResource):
```

```
    class Meta:
```

```
        queryset = Entry.objects.all()
```

```
        resource_name = 'entry'
```

Hooking Up The Resource

```
# urls.py
from django.conf.urls.defaults import *
from myapp.api import EntryResource

entry_resource = EntryResource()

urlpatterns = patterns('',
    # The normal jazz here...
    (r'^blog/', include('myapp.urls')),
    (r'^api/', include(entry_resource.urls)),
)
```

- <http://127.0.0.1:8000/api/entry/?format=json>
- <http://127.0.0.1:8000/api/entry/1/?format=json>
- <http://127.0.0.1:8000/api/entry/schema/?format=json>
- <http://127.0.0.1:8000/api/entry/set/1;3/?format=json>

Creating More Resources

```
# myapp/api.py
from django.contrib.auth.models import User
from tastypie import fields
from tastypie.resources import ModelResource
from myapp.models import Entry

class UserResource(ModelResource):
    class Meta:
        queryset = User.objects.all()
        resource_name = 'user'

class EntryResource(ModelResource):
    user = fields.ForeignKey(UserResource, 'user')

    class Meta:
        queryset = Entry.objects.all()
        resource_name = 'entry'
```

Adding To The Api

```
# urls.py

from django.conf.urls.defaults import *
from tastypie.api import Api
from myapp.api import EntryResource, UserResource

v1_api = Api(api_name='v1')
v1_api.register(UserResource())
v1_api.register(EntryResource())

urlpatterns = patterns('',
    # The normal jazz here...
    (r'^blog/', include('myapp.urls')),
    (r'^api/', include(v1_api.urls)),
)
```


Настройки

```
from tastypie.authentication import BasicAuthentication
```

```
class SillyAuthentication(Authentication):  
    def is_authenticated(self, request, **kwargs):  
        if 'daniel' in request.user.username:  
            return True  
  
        return False
```

```
class UserResource(ModelResource):  
    class Meta:  
        queryset = User.objects.all()  
        resource_name = 'user'  
        excludes = ['email', 'password', 'is_active', 'is_staff', 'is_superuser']  
        fields = ['username', 'first_name', 'last_name', 'last_login']  
        allowed_methods = ['get']  
        authentication = BasicAuthentication()
```

Настройки

```
from tastypie.authorization import DjangoAuthorization
from tastypie.serializers import Serializer
from tastypie.throttle import BaseThrottle
from tastypie.paginator import Paginator

class UserResource(ModelResource):
    class Meta:
        .....
        # Add it here.
        authorization = DjangoAuthorization()
        serializer = Serializer(formats=['json', 'jsonp', 'xml', 'yaml', 'html', 'plist'])
        throttle = BaseThrottle(throttle_at=100, timeframe=2)
        paginator_class = Paginator
```

Настройки

API_LIMIT_PER_PAGE

TASTYPIE_ALLOW_MISSING_SLASH

TASTYPIE_DATETIME_FORMATTING = 'rfc-2822'

TASTYPIE_DEFAULT_FORMATS = ['json', 'xml']

Возможности

Tastypie features support for GeoDjango! Resources return and accept **GeoJSON** ■

It is common to use django to provision OAuth 2.0 tokens for users and then have Tasty Pie use these tokens to authenticate users to the API.

```
import requests
import json

response = requests.get('http://localhost:8000/api/v1/entry/1/')
event = json.loads(response.content)
response = requests.post('http://localhost:8000/api/v1/entry/',
                        data=json.dumps(event),
                        headers={'content-type': 'application/json'})
```

Приемы резнесения настроек на серверах.

_local.py -> local.py

from local import *

.gitignore

.idea

*.pyc

/media

local.py

db.sqlite3

*~

Интеграция аутентификации через соц. сети.

Django Social Auth

```
pip install django-social-auth
```

```
INSTALLED_APPS = (
```

```
    ...
```

```
    'social_auth'
```

```
)
```

```
./manage.py syncdb
```

Интеграция аутентификации через соц. сети.

```
AUTHENTICATION_BACKENDS = (  
    'social_auth.backends.twitter.TwitterBackend',  
    'social_auth.backends.facebook.FacebookBackend',  
    'social_auth.backends.google.GoogleOAuthBackend',  
    'social_auth.backends.google.GoogleOAuth2Backend',  
    'social_auth.backends.google.GoogleBackend',  
    'social_auth.backends.yahoo.YahooBackend',  
    'social_auth.backends.browserid.BrowserIDBackend',  
    'social_auth.backends.contrib.linkedin.LinkedinBackend',  
    'social_auth.backends.contrib.disqus.DisqusBackend',  
    'social_auth.backends.contrib.livejournal.LiveJournalBackend',  
    'social_auth.backends.contrib.orkut.OrkutBackend',  
    'social_auth.backends.contrib.foursquare.FoursquareBackend',  
    'social_auth.backends.contrib.github.GithubBackend',  
    'social_auth.backends.contrib.vk.VKOAuth2Backend',  
    'social_auth.backends.contrib.live.LiveBackend',  
    'social_auth.backends.contrib.skyrock.SkyrockBackend',  
    'social_auth.backends.contrib.yahoo.YahooOAuthBackend',  
    'social_auth.backends.contrib.readability.ReadabilityBackend',  
    'social_auth.backends.contrib.fedora.FedoraBackend',  
    'social_auth.backends.OpenIDBackend',  
    'django.contrib.auth.backends.ModelBackend',  
)
```

```
urlpatterns = patterns('',
    ...
    url(r'', include('social_auth.urls')),
    ...
)

TWITTER_CONSUMER_KEY          = ''
TWITTER_CONSUMER_SECRET       = ''
FACEBOOK_APP_ID               = ''
.....
SKYROCK_CONSUMER_SECRET       = ''
YAHOO_CONSUMER_KEY            = ''
YAHOO_CONSUMER_SECRET         = ''
READABILITY_CONSUMER_SECRET   = ''
READABILITY_CONSUMER_SECRET    = ''
```


Интеграция аутентификации через соц. сети.

```
LOGIN_URL            = '/login-form/'
LOGIN_REDIRECT_URL   = '/logged-in/'
LOGIN_ERROR_URL      = '/login-error/'
SOCIAL_AUTH_LOGIN_REDIRECT_URL = '/another-login-url/'
SOCIAL_AUTH_NEW_USER_REDIRECT_URL = '/new-users-redirect-url/'
SOCIAL_AUTH_NEW_ASSOCIATION_REDIRECT_URL = '/new-association-redirect-url/'
SOCIAL_AUTH_DISCONNECT_REDIRECT_URL = '/account-disconnected-redirect-url/'
SOCIAL_AUTH_BACKEND_ERROR_URL = '/new-error-url/'
```

```
{% url "socialauth_begin" "backend-name" %}
{% url "socialauth_disconnect" "backend-name" %}
{% url "socialauth_disconnect_individual" "backend-name" association_id %}
```