Composing WSGI apps and spellchecking it all

Rodolfo Carvalho

Composable abstractions

WSGI

UNIX pipes
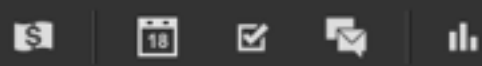
Falcon

Contacts / **Adolf Vandervort**   ✎ Edit

Current ⌄ Customer Status
Non ⌄ Prospect Status

Pheodora Papke owner

📞 +1 773-770-8599 work

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mobile

✉ adolf.vandervort@example.net
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NEWSLETTER FEBRUARY

tags

Manufacturing Industry

123-123-123-2 Tax Number

To add an outside email to this contact, forward or BCC to:
d557696e@email.getbase.com 📋 ⟳
❓

Add a Note	**Send an Email**	Send a Text Message

To: **Adolf Vandervort** +   Cc | Bcc

Subject: Follow-up on Proposal

Hi **First name**,

My name is Ryan and I work with **Industry** agents to help them become productive sales people. I was wondering if you have a few minutes for a call later this week?

Talk soon,

Ryan Thomas

B *I* U ☰ 🖼 🔗 {}

Send Email 📎   Template: Proposal Follow-Up Email ...

Displaying all activity ⌄

✉	You ⊕ Adolf Vandervort	not viewed	15/09/2014 15:28

Follow-up on Proposal

📄	Ryan Thomas left a note		14/09/2014 7:42

They are looking for a fast setup. Looking to get up and running within the week.

✉	dashawn_donnelly@example.net ⊕ Adolf Vandervort	sent outside of Base ❓	12/09/2014 8:28

Follow up - great to talk to you last week

✉	donnie.leannon@example.net ⊕ Adolf Vandervort	sent outside of Base ❓	25/07/2014 21:53

How's the Progress?

👤	Adolf Vandervort added by Ryan Thomas		14/09/2014 7:27

CUSTOMER DEAL REVENUE

$0   **$0**
0 WON DEALS   0 POTENTIAL DEALS

CURRENT DEALS   +

No Deals

COLLABORATORS   +

No Collaborators

Become a Collaborator

APPOINTMENTS   +

No Appointments

TASKS   +

☐ Schedule Follow Up Meeting
Tomorrow 0:00 · Ryan Thomas

DOCUMENTS   +

No Documents

but DRF is just WSGI…

WSGI, PEP-3333

```python
def app(environ, start_response):
    """A stupidly simple WSGI application"""

    status = '200 OK'
    response_headers = [('Content-type', 'text/plain')]
    start_response(status, response_headers)

    return ['Hello world!\n']
```

WSGI

- Application / Framework

- Server / Gateway

- Middleware

Middleware

- Route request to different applications based on URL, rewriting environ accordingly.

- Run multiple applications or frameworks side-by-side in the same process

- Load balancing and remote processing

- Content postprocessing

Composing WSGI apps

Django + Falcon + anything you want

```python
from django_demo.wsgi import application as django_app
from falcon_demo.hello import app as falcon_app

# environ = {
#     'SCRIPT_NAME': '',
#     'PATH_INFO': '/falcon/api/deals/666',
#     # ...
# }


def app(environ, start_response):
    script_name = environ.setdefault('SCRIPT_NAME', '')
    path_info = environ.setdefault('PATH_INFO', '')

    if path_info.startswith('/falcon'):
        environ['SCRIPT_NAME'] += path_info[:7]
        environ['PATH_INFO'] = path_info[7:]

        return falcon_app(environ, start_response)

    return django_app(environ, start_response)
```
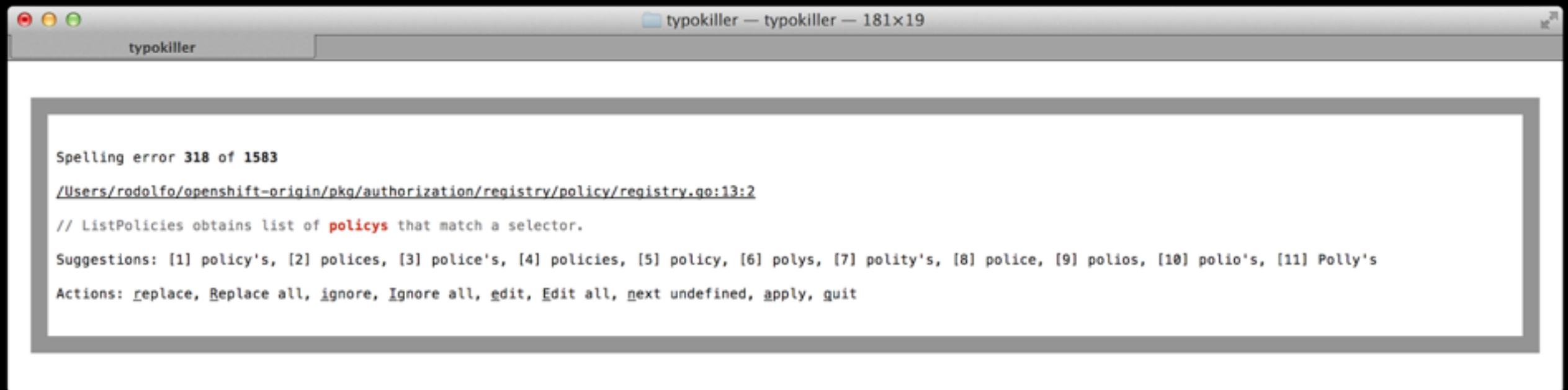
multiple frameworks in the same process :)

django Sprint 2014

Rodolfo Sprint 2015

UNIX pipes

```
$ ls -1a | grep "^\." | sort -r | less
```

read | check | fix | apply

```
# normal usage:

$ typokiller read /FROM/PATH |
  ./spellcheck.py |
  typokiller fix
```

```
# inspect spellcheck results manually:

$ typokiller read /FROM/PATH |
  ./spellcheck.py |
  ./pprint_json.py |
  less
```

```
# limit number of packages:

$ typokiller read /FROM/PATH |
  head -n 20 |
  ./spellcheck.py |
  ./pprint_json.py |
  less
```

aim for composability

- github.com/rhcarvalho/django-plus-falcon-pypy

- github.com/rhcarvalho/typokiller

- Ask me questions!