

Pyramid

The Start **Small**, Finish **Big**
Stay **Finished** Framework

Úvod

- Petr Blahoš, <https://www.blahos.com/>
- Firemní aplikace pro sledovatelnost výroby
- Intranetový interface

- Pylons – před 12.lety, proto <https://pylonsproject.org/>
- Chris McDonough – `repoze.bfg` → pyramid

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- Chris McDonough – `repoze.bfg` → `pyramid`
- Máme aspoň <https://trypyramid.com/>

Co je Pyramid

- Framework, ne micro, ne mega
- Modulární
- URL Dispatch(routing) nebo Traversal
- Views
- Volitelně:
 - Rendering: mako, jinja2, chameleon
 - string, json, jsonp
 - Sessions
 - i18n
 - Security (auth+auth)

Model?

- pyramid_tm – klasické řešení transakcí
 - sqlalchemy, migrace: alembic
 - MongoDB, CouchDB, Elasticsearch
-
- Kořeny v ZOPE
 - Interfaces a podpora ZODB

Začínáme s Pyramid

- <https://trypyramid.com/> → Installation instructions
- Cookiecutters:
 - `gh:Pylons/pyramid-cookiecutter-starter`
 - `gh:Pylons/pyramid-cookiecutter-alchemy`
 - `gh:Pylons/pyramid-cookiecutter-zodb`

Začínáme s Pyramid

```
$ pip install cookiecutter
```

```
$ cookiecutter gh:Pylons/pyramid-cookiecutter-starter
```

```
$ cd PROJECTNAME
```

```
$ python3 -m venv env
```

```
$ . env/bin/activate
```

```
$ pip install -U pip setuptools
```

```
$ pip install -e .
```

```
$ pserve --reload development.ini
```

Začínáme s Pyramid

- <https://trypyramid.com/>
- Installation instructions
- Narrative Documentation
 - Creating a Pyramid Project

Základ

- Transaction manager, retry
- Sessions (postavené na cookies)
- i18n, l14n
 - gettext / *.pot → *.po → *.mo
 - `request._`, případně `_` jako globální funkce
- Security
 - Authentication policy: remember / forget
 - Authorization policy

Základ: ACLAuthorizationPolicy

- Config:

```
config.set_authorization_policy(ACLAuthorizationPolicy)
config.set_default_permission("access")
```

- Resources - Context:

```
__acl__ = [
    (Allow, Everyone, "access"),
    (Allow, "group:admin", ALL_PERMISSIONS),
    (Allow, "group:foreman", "edit"),
    (Allow, "group:techno", "edit"),
    (Allow, Authenticated, "changepassword"),
    (Deny, Everyone, ALL_PERMISSIONS),
]
```

- View:

```
@view_config(
    context="tracecar.model.resources.EditSubItemContext",
    renderer="/db/edit.mako",
    permission="edit",
    name="edit",
)
def edit(self):
```

Základ

- pyramid_debugtoolbar
- Podpora testování (py.test)
- Logování – import logging

Velmi podporované

- deform + colander
 - <http://deformdemo.repoze.org/>
- SQLAlchemy, ZODB
 - gh:Pylons/pyramid-cookiecutter-alchemy
- templating
 - Jinja2, Chameleon, Mako
- pyramid_mailer
- pyramid_rpc (xmlrpc, jsonrpc)
- Caching – dogpile.cache

Warehouse (new PyPI)

- pyramid_jinja2
- pyramid_rpc (xmlrpc)
- pyramid_mailer
- pyramid_tm
- pyramid_services

- sqlalchemy + alembic (migrations)

- elasticsearch
- wtforms

Dotazy

Zdroje

- <https://trypyramid.com/>
- <https://pyramid.readthedocs.org/>
- <https://docs.pylonsproject.org/projects/pyramid-cookbook/en/latest/index.html>
- <https://github.com/petrblahos/pyrasample>