



Flask-Admin

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CTPUG 29 March 2014

SpaceX CRS-3 Mission



<http://www.spacex.com/webcast/>

Why Flask?

- Bring Your Own Batteries
- Loose coupling
- Freedom to choose



DjangoCon 2012 - Kenneth Reitz "Flasky Goodness (or Why Django Sucks?)"

Flask plugins

- Flask-SQLAlchemy
- Flask-Login
- Flask-Babel



Flask-Admin

Model-based CRUD Admin, inspired
by Django admin

Live examples

<http://172.16.5.125/>

Simple views

```
from flask import Flask
from flask.ext.admin import Admin, BaseView, expose

class MyView(BaseView):
    @expose('/')
    def index(self):
        return self.render('index.html')

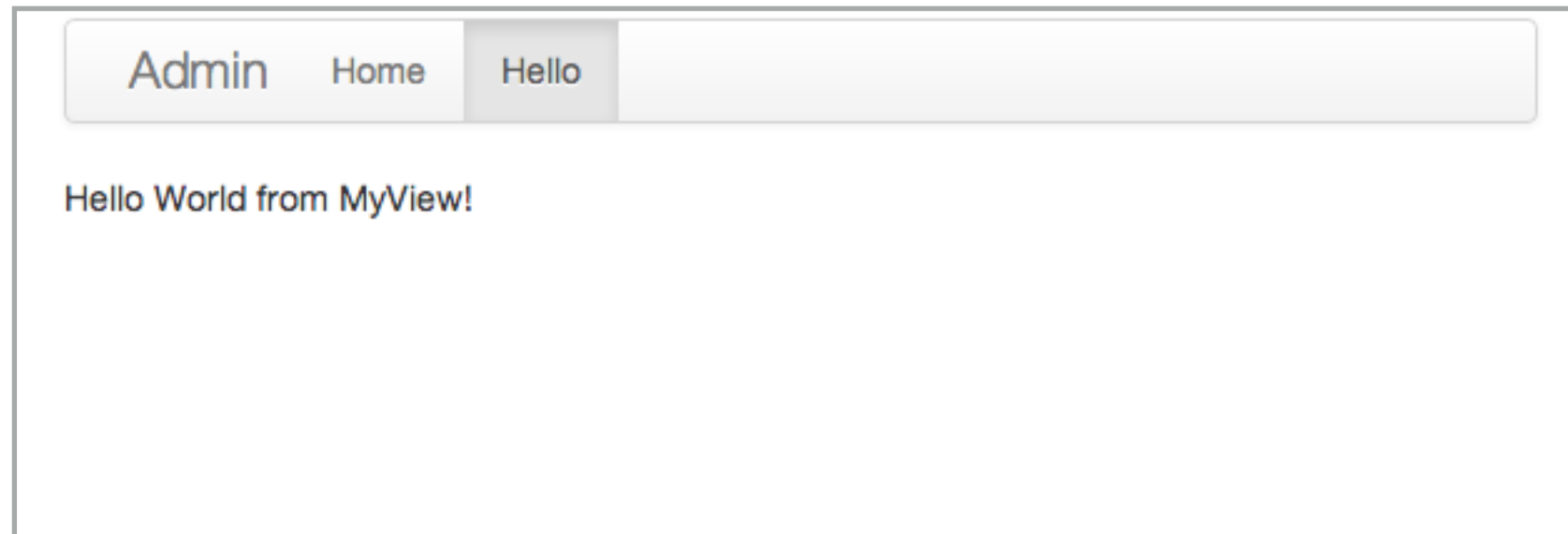
app = Flask(__name__)

admin = Admin(app)
admin.add_view(MyView(name='Hello'))

app.run()
```

```
{% extends 'admin/master.html' %}
{% block body %}
    Hello World from MyView!
{% endblock %}
```


Simple views









Model based views

```
from flask.ext.admin.contrib.sqla import ModelView

# Flask and Flask-SQLAlchemy initialization here

admin = Admin(app)
admin.add_view(ModelView(User, db.session))
```

Admin Home User			
List (3) Create With selected ▾			
<input type="checkbox"/>		Username	Email
<input type="checkbox"/>	 	test_1	test_1@example.com
<input type="checkbox"/>	 	test_2	test_2@example.com
<input type="checkbox"/>	 	test_3	test_3@example.com

Model based views

```
from flask.ext.admin.contrib.sqla import ModelView

# Flask and Flask-SQLAlchemy initialization here

class MyView(ModelView):
    # Disable model creation
    can_create = False

    # Override displayed fields
    column_list = ('login', 'email')

    def __init__(self, session, **kwargs):
        # You can pass name and other parameters if you want to
        super(MyView, self).__init__(User, session, **kwargs)

admin = Admin(app)
admin.add_view(MyView(db.session))
```

http://flask-admin.readthedocs.org/en/latest/api/mod_model/

Authentication

```
class MyView(BaseView):  
    def is_accessible(self):  
        return login.current_user.is_authenticated()
```

File admin

```
from flask.ext.admin.contrib.fileadmin import FileAdmin

import os.path as op

# Flask setup here











admin = Admin(app)

path = op.join(op.dirname(__file__), 'static')
admin.add_view(FileAdmin(path, '/static/', name='Static Files'))
```

File admin

[Admin](#) [Home](#) [User](#) [Static Files](#)

Root /

<input type="checkbox"/>		Name	Size
<input type="checkbox"/>	 	5-buffalo.jpg	417251
<input type="checkbox"/>	 	5-elephant.jpg	358837
<input type="checkbox"/>	 	5-leopard.jpg	408094
<input type="checkbox"/>	 	5-lion.jpg	394614
<input type="checkbox"/>	 	5-rhino.jpg	365378

[Upload File](#) [Create Directory](#) [With selected▼](#)

Customisation?

- Override builtin templates
- Custom model views
 - attributes of BaseModelView
 - form rendering rules

Form rendering rules

```
from flask.ext.admin.form import rules
from flask.ext.admin.contrib import sqa

class RuleView(sqa.ModelView):
    form_create_rules = [
        # Header and four fields. Email field will go above phone field.
        rules.FieldSet(('first_name', 'last_name', 'email', 'phone'), 'Personal'),
        # Separate header and few fields
        rules.Header('Address'),
        rules.Field('address'),
        # String is resolved to form field, so there's no need to explicitly
        # use `rules.Field`
        'city',
        'zip',
        # Call `wrap` macro
        rules.Container('wrap', rules.Field('notes'))
    ]

    # Use same rule set for edit page
    form_edit_rules = form_create_rules
```


Simple Models Home File Image Rule

List Create

Personal

First Name

Last Name

Email

Phone

Address

Address

City

Zip

Notes

Submit

Save and Add

Cancel

Use cases?

<http://billsapi.demo4sa.org/admin/>

<http://ford-housing.demo4sa.org/admin>

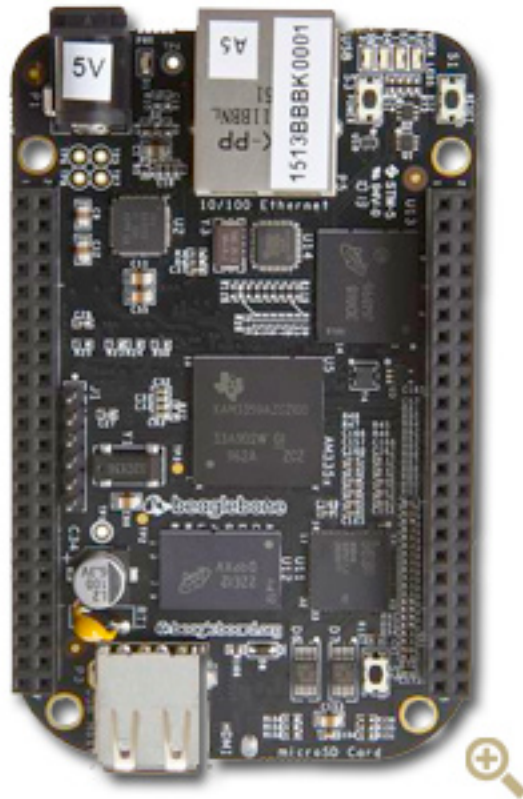
Interested?

<http://flask-admin.readthedocs.org/>

<https://github.com/mrjoes/flask-admin>

<http://examples.flask-admin.org/>

BeagleBone Black



What is BeagleBone Black?

BeagleBone Black is a \$45 MSRP community-supported development platform for developers and hobbyists. Boot Linux in under 10 seconds and get started on development in less than 5 minutes with just a single USB cable.

Processor: AM335x 1GHz ARM® Cortex-A8

- 512MB DDR3 RAM
- 2GB 8-bit eMMC on-board flash storage
- 3D graphics accelerator
- NEON floating-point accelerator
- 2x PRU 32-bit microcontrollers


Software Compatibility

- Ångström Linux
- Android
- Ubuntu
- Cloud9 IDE on Node.js w/ BoneScript library
- plus much more

Connectivity

- USB client for power & communications
- USB host
- Ethernet
- HDMI
- 2x 46 pin headers

Purchase 

Select a distributor to buy 

Project ideas

<https://github.com/hodgestar/coffee-api>

+

Beagle Bone Black

+

Coffee machine