Flask-Admin

Petrus Janse van Rensburg

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SpaceX CRS-3 Mission

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

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Why Flask?

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

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

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Flask plugins

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

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Flask-Admin

Model-based CRUD Admin, inspired by Django admin

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Live examples

http://172.16.5.125/

Simple views

```python
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

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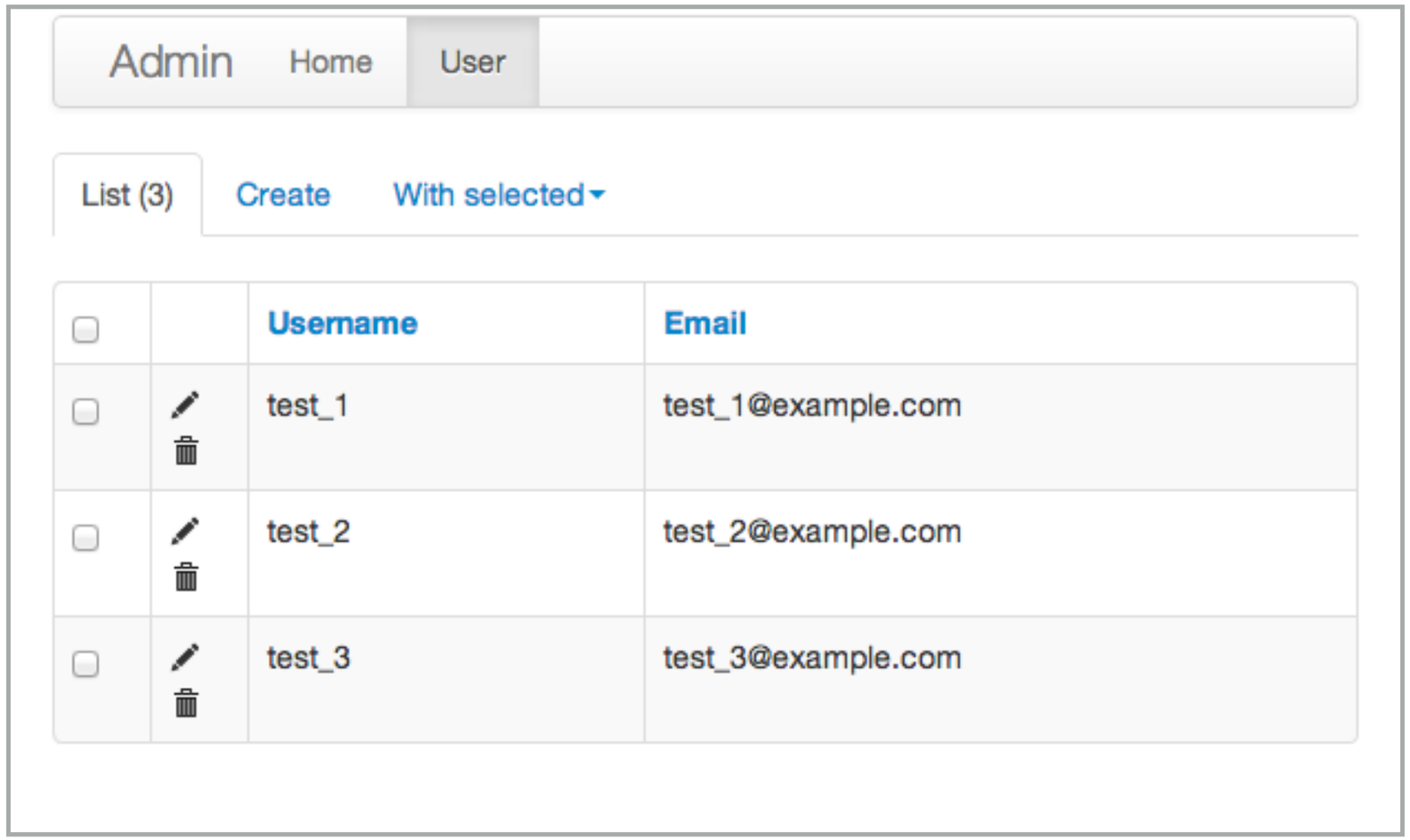
Model based views

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

# Flask and Flask-SQLAlchemy initialization here

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



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Model based views

```python
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/

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Authentication

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

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File admin

```python
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'))
```

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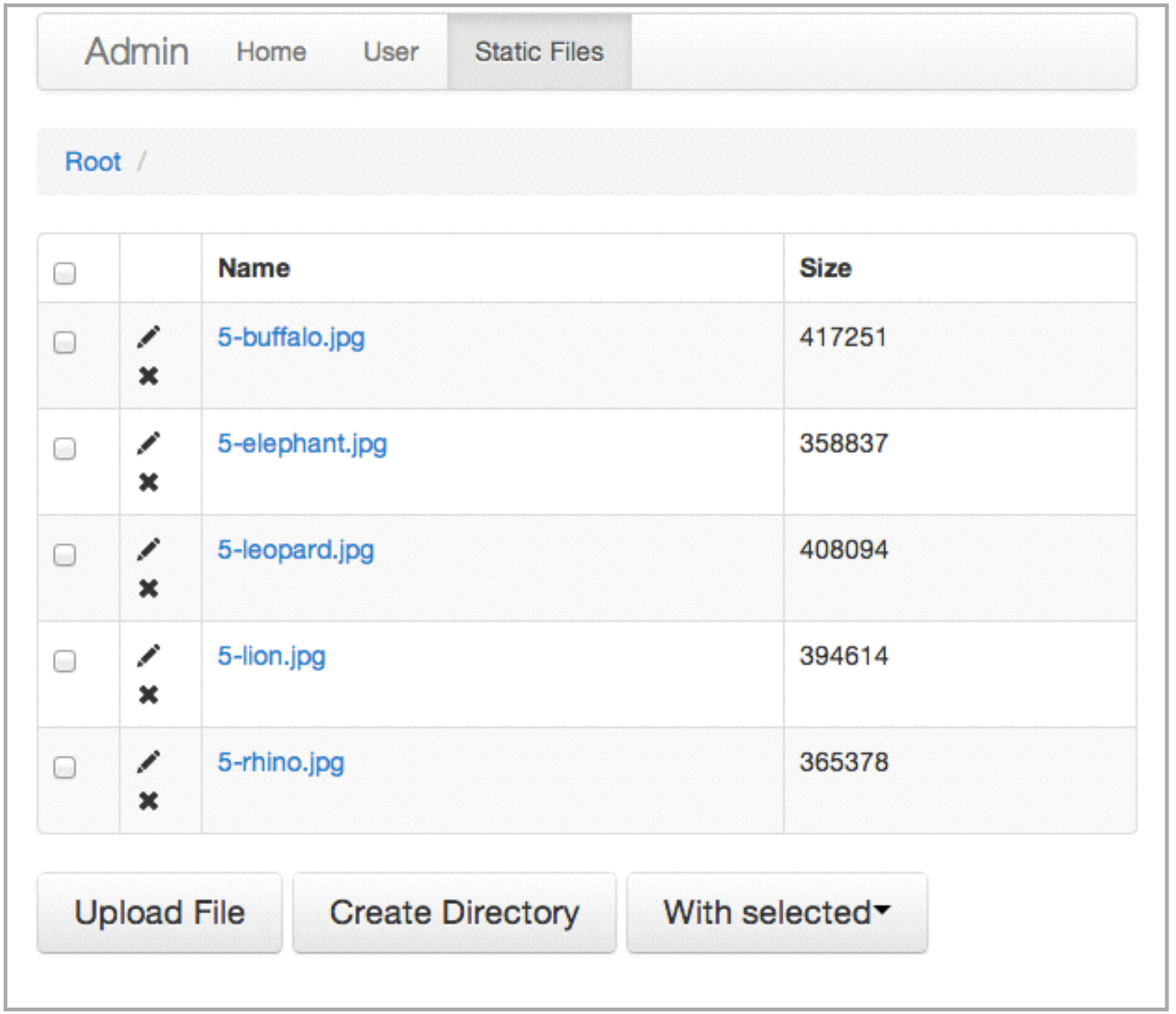
File admin



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Customisation?

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

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Form rendering rules

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

class RuleView(sqla.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
```

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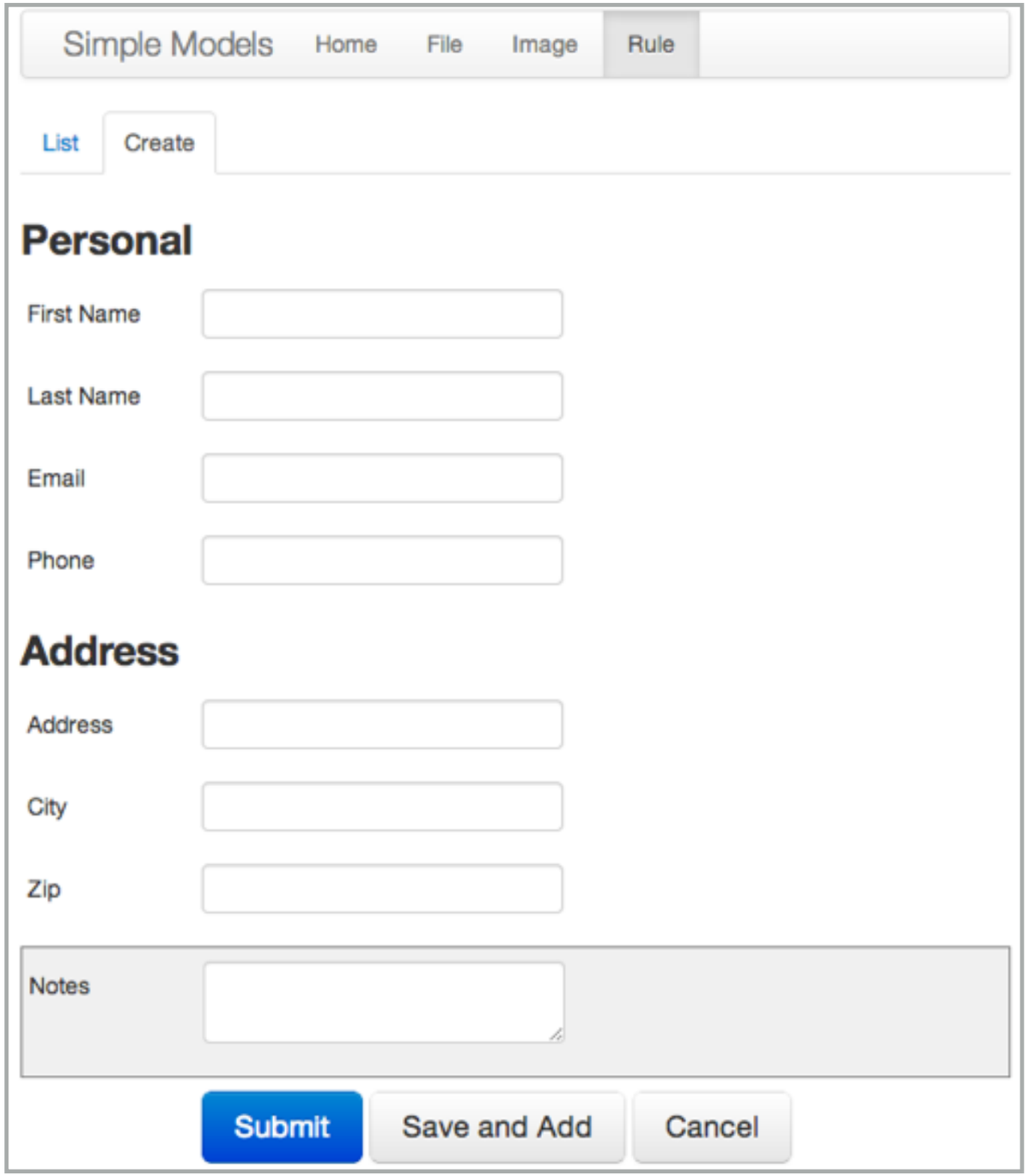

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Use cases?

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

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

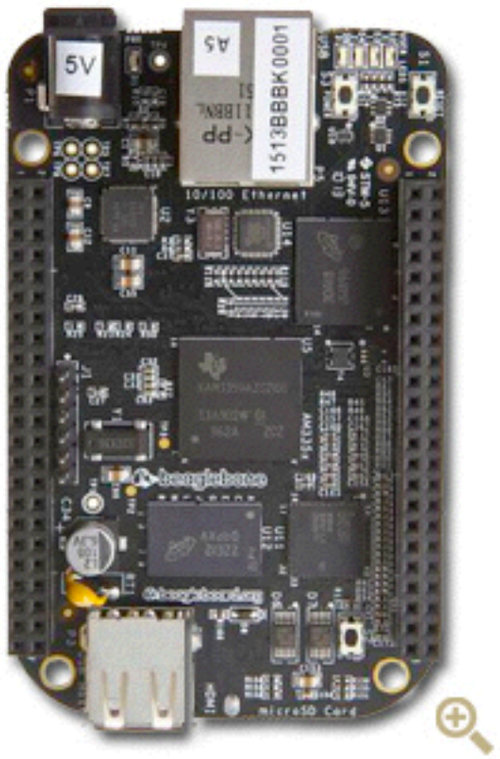
Interested?

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

Connectivity

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

Software Compatibility

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

Purchase

Select a distributor to buy

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Project ideas

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

+

Beagle Bone Black

+

Coffee machine

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