Facebook apps using Python+Django+GAE

John Alexis Guerra Gómez
jguerrag [en} cs.umd.edu
CMSC433 Spring 2010
University of Maryland
Part II: Google App Engine
What's django

- http://www.djangoproject.com/
- “Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design.”
- DRY (Don't Repeat Yourself)
  http://c2.com/cgi/wiki?DontRepeatYourself
- ORM (Object Relational Mapping) + Templates (for views) + Forms + Much more
Stripping down Django

• For GAE we cannot use the full framework
• We use BigTable!
• Google modified some of its components. So be aware that not everything your found on Internet for Django will work on GAE
Framework

Your App

Django

Google App Engine
Ingredients

- Python http://www.python.org/download/
- Google App Engine
  http://code.google.com/appengine/downloads.html
- Django http://www.djangoproject.com/download/
- GAE Django helper
  http://code.google.com/p/google-app-engine-django/
- Eclipse + pydev (Optional)
  http://www.eclipse.org/downloads/
  http://pydev.org/
Setting up

Watch
http://www.youtube.com/watch?v=v1gTI4BOPUw

- Create an app GAE empty app
- In eclipse start new project->pydev->pydev google app engine project
Install the helper


- Unzip and copy the contents of the appengine_helper_for_django into your new project folder

- Follow the instructions of the README file
More tutorials

- Describes how to perform the steps from within Eclipse
Modify the configuration files

- On app.yaml write your applications name
Copy django

- Download, and extract the latest version of django.
- Take the folder call django and copy it on your project folder.
Start a new app

- Run python manage.py startapp my_app
Modify the settings.py file

- In the INSTALLED_APPS add your recently created app
Modify your urls.py

```python
from django.conf.urls.defaults import *

urlpatterns = patterns('my_app.views',
    (r'^$', 'index'),
)
```
Modify your views.py

```python
# Create your views here.
from django.http import HttpResponse

def index(request):
    return HttpResponse("Hello world")
```
Facebook
PyFacebook

- Allow us to use the fb API
Create your own fb app

- Go to http://www.facebook.com/developers
- Create your own app.
- Copy the api key and secret
Edit 433-hello-world  Back to My Applications

Basic
Authentication
Profiles
Canvas
Connect
Widgets
Advanced
Migrations

Required URLs
Canvas Page URL: https://apps.facebook.com/myfirstbaap-new/
Canvas Callback URL: http://myfirstbaap.apspot.com/

Optional URLs
Post-Authorize Redirect URL: 

Canvas Settings
Render Method
- IFrame
- FBML

IFrame Size
- Smart size
- Resizable

The base URL for your canvas pages on Facebook.
Facebook pulls the content for your application's canvas pages from this URL or directory. For more information, see the documentation.

Where to redirect users when they first authorize your application. If left blank, this field defaults to the Canvas Page URL.

Choose whether you will render your canvas page in an iframe or with FBML. Note that you can set EXRML in an iframe.
For iframe applications, choose whether you want to maximize the iframe size in the remaining space of the Canvas Page or to match...
FBML

User → HTML GET → Facebook's servers → HTML response → User

Facebook's servers → HTML POST → GAE's Server → FBML Response → GAE's Server
Authentication

- We don't use anymore the GAE model
- We use the Facebook users model