

# Reusable Django Apps

*Björn Andersson*

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- *URLs (routes)*



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  - *Requirements*
- *Tests*
  - *Is your app green?*

# How to make a reusable app?

*Easiest way to start is to use cookiecutter.*



```
$ pip install cookiecutter  
$ cookiecutter git@github.com:pydanny/  
cookiecutter-djangopackage.git
```



# starting an app with cookiecutter

```
(test)ba@djuproera(system)% cookiecutter git@github.com:pydanny/cookiecutter-djangopackage.git
Cloning into 'cookiecutter-djangopackage'...
remote: Counting objects: 366, done.
remote: Total 366 (delta 0), reused 0 (delta 0)
Receiving objects: 100% (366/366), 55.67 KiB | 0 bytes/s, done.
Resolving deltas: 100% (179/179), done.
Checking connectivity... done.
full_name (default is "Your full name here")? Björn Andersson
email (default is "you@example.com")? ba@sanitarium.se
github_username (default is "yourname")? gaqzi
project_name (default is "dj-package")? django-test
repo_name (default is "dj-package")? django-test
app_name (default is "djpackage")? testapp
project_short_description (default is "Your project description goes here")? A fancy description
release_date (default is "2014-01-01")? 2014-09-04
year (default is "2014")?
version (default is "0.1.0")? 1.0.0
(test)ba@djuproera(system)% ls
django-test
(test)ba@djuproera(system)% ls django-test
AUTHORS.rst      LICENSE          README.rst      requirements.txt  setup.py
CONTRIBUTING.rst  MANIFEST.in     docs            runtests.py      testapp
HISTORY.rst      Makefile        requirements-test.txt  setup.cfg        tests
(test)ba@djuproera(system)% █
```



# TravisCI / Continuous Integration

TravisCI interface for repository `gaqzi/django-emoji`. The build history shows a failed build (#58 failed) with the message: "Will need to test with 3.4 as well, but I will do that with tox locally first before pushing. This commit is being done from GitHub and I feel fairly certain it'll not break anything :P".

The Build Matrix table shows the following configurations:

Job	Duration	Finished	Python	ENV
58.1	1 min 14 sec	less than a minute ago	2.6	DJANGO_VERSION=1.4.10
58.2	1 min 1 sec	about a minute ago	2.6	DJANGO_VERSION=1.5.5
58.3	47 sec	2 minutes ago	2.6	DJANGO_VERSION=1.6.7
58.4	44 sec	about a minute ago	2.6	DJANGO_VERSION=1.7
58.5	50 sec	about a minute ago	2.7	DJANGO_VERSION=1.4.10
58.6	52 sec	less than a minute ago	2.7	DJANGO_VERSION=1.5.5
58.7	48 sec	less than a minute ago	2.7	DJANGO_VERSION=1.6.7
58.8	42 sec	less than a minute ago	2.7	DJANGO_VERSION=1.7

Annotations:

- 2.6 support dropped (pointing to job 58.4)
- Probably an issue with nose (pointing to job 58.8)
- Versions of Python and Django tested. Some failures. (pointing to the Build Matrix table)

*Travis can handle multiple versions of Python/Django for you as long as none of the packages differ.*

*Meaning that if you only care about support 2.7, 3.3 you can use a Travis matrix to test your app. Which gives you nice output like this one.*

# Coveralls / Test coverage

gaqzi / django-emoji 96%

BRANCH: MASTER | GITHUB BPO | PUBLISH BPO

BUILD	BRANCH	COVERAGE	COMMIT	COMMITTER	TYPE	TIME	VIA
#94	master	95.99%	Update Travis to test Django 1.7 Will need to test with 3.4 as well, but I will do that with tox locally first before pushing. This commit is being done from GitHub and I feel fairly certain it's not break anything. :P	gaqzi	push	18 minutes ago	travis-ci

COVERAGE | FILE | LINES | RELEVANT | COVERED | MISSED | HITS/LINE

FILE	LINES	RELEVANT	COVERED	MISSED	HITS/LINE
emoji/models.py	218	87	82	5	1.0
emoji/urls.py	7	3	3	0	1.0
emoji/templatetags/emoji_tags.py	37	10	10	0	1.0
emoji/views.py	19	7	7	0	1.0
emoji/settings.py	11	4	4	0	1.0
emoji/__init__.py	5	3	3	0	1.0
emoji/templatetags/__init__.py	0	0	0	0	0.0

Showing 1 to 7 of 7 entries

```
146 for i, character in enumerate(replacement_strings):
147     if character in (c, unicode_modifiers):
148         continue
149
150     # Check whether this is the first character in a surrogate
151     # surrogate pair when Python doesn't have wide unicode
152     # support.
153     #
154     # If there any reason to do this even if Python got wide
155     # support enabled?
156     if (not (UNICODE_WIDE and not surrogate_character and
157             and(character) <= (UNICODE_SURROGATE_MIN and
158                               and(character) <= (UNICODE_SURROGATE_MAX)):
159         surrogate_character = character
160         continue
161
162     if surrogate_character:
163         character = convert_unicode_surrogates(
164             surrogate_character + character
165         )
166         surrogate_character = None
167
168     name = c.name_for(character)
169     if name:
170         if settings.EMOJI_ALI_RS_UNICODE:
171             character = a_image_string(name, alt_character)
172         else:
173             character = c_image_string(name)
174
175     output.append(character)
176
177 return ''.join(output)
```

# tox / Multi version testing

*Define which versions of Python you want to test with and which package versions on that given version.*

*For instance to test Python 2.6 with Django 1.4, 1.5 and 1.6.*

*Python 2.7 on Django 1.4, 1.5, 1.6 and 1.7*

*Python 3.3 on Django 1.6 and 1.7*

*Checkout tox-matrix for an easy way to define versions and dependencies.*

# TravisCI with tox, example output

```
OK
Destroying test database for alias 'default'...
_____ summary
_____

py26-djangol4: commands succeeded
py27-djangol4: commands succeeded
py26-djangol5: commands succeeded
py27-djangol5: commands succeeded
py26-djangol6: commands succeeded
py27-djangol6: commands succeeded
py33-djangol6: commands succeeded
py27-djangol7: commands succeeded
py33-djangol7: commands succeeded
py34-djangol7: commands succeeded
congratulations :)

The command "make test" exited with 0.
$ coveralls
```

# References

- *cookiecutter*  
<https://github.com/audreyr/cookiecutter>
- *cookiecutter-djangopackage*  
<https://github.com/pydanny/cookiecutter-djangopackage>
- *tox*  
<http://tox.testrun.org>
- *tox-matrix*  
<https://pypi.python.org/pypi/tox-matrix>