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# **Django-HTTPolice Documentation**

**Vasiliy Faronov**

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Django-HTTPolice is a package that integrates [HTTPolice](#) into Django 1.11+.

For recent changes in Django-HTTPolice, see the [changelog](#).



# CHAPTER 1

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## Example

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For a small example of Django-HTTPolice in action, see the [example directory](#) in the Git repo.



## CHAPTER 2

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### Installation

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```
$ pip3 install Django-HTTPolice
```

This package provides `django_httpolice.HTTPPoliceMiddleware`. Add it to your `MIDDLEWARE` list, as close to the top as possible:

```
MIDDLEWARE = [  
    'django_httpolice.HTTPPoliceMiddleware',  
    'django.middleware.common.CommonMiddleware',  
    # ...  
]
```

This middleware does **nothing** until you also set the `HTTPOLICE_ENABLE` setting to `True`.

When enabled, the middleware checks all `exchanges` passing through it. Then, there are two different ways to see the results of these checks.



## CHAPTER 3

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### Viewing the backlog

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All exchanges checked by the middleware are stored in a global variable called the *backlog*. By default, it holds up to 20 latest exchanges, but you can override by setting `HTTPOLICE_BACKLOG` to a different number.

The package also provides the `django_httppolice.report_view()` function. Add it to your `URLconf` like this:

```
import django_httppolice

urlpatterns = [
    # ...
    url(r'^httpolice/$', django_httppolice.report_view),
    # ...
]
```

When you start the server and open `/httpolice/` (or whatever URL you chose), you will see an HTML report on all the exchanges currently in the backlog. The **latest** exchanges are shown at the **bottom** of the report.

If `HTTPOLICE_ENABLE` is not `True`, the view responds with 404 (Not Found).

You can also access the backlog from your own code: it's in the `django_httppolice.backlog` variable, as a sequence of `httpolice.Exchange` objects. The latest exchange is `backlog[-1]`.



## CHAPTER 4

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### Raising on notices

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If you set the `HTTPOLICE_RAISE` setting to `'error'`, then the middleware will raise a `django_httppolice.ProtocolError` whenever a **response** is found to have any notices of severity “error” (that are not *silenced*). If you set it to `'comment'`, this will happen even for severity “comment”.

The exchange is still added to the backlog.

This can be used to fail tests on problems:

```
$ python manage.py test
...E
=====
ERROR: test_query_plain (example_app.test.ExampleTestCase)
-----
Traceback (most recent call last):
  [...]
  File "[...]/django_httppolice/middleware.py", line 92, in process_response
    raise ProtocolError(exchange)
django_httppolice.common.ProtocolError: HTTPolice found problems in this response:
----- request: GET /api/v1/words/?query=er
C 1070 No User-Agent header
----- response: 200 OK
E 1038 Bad JSON body

-----

Ran 4 tests in 0.380s

FAILED (errors=1)
```



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## Silencing unwanted notices

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To `silence` notices you don't care about, you can use the `HTTPPOLICE_SILENCE` setting:

```
HTTPPOLICE_SILENCE = [1070, 1110, 1194]
```

They will disappear from reports and will not cause `ProtocolError`.

By default, `HTTPPOLICE_SILENCE` contains the following notices:

- `1110` because Django doesn't set `Date` on its responses, instead expecting the HTTP server to supply it
- `1070` because Django's test client doesn't send `User-Agent`

Of course, the `HTTPPolice-Silence` header works, too:

```
def test_unauthorized(self):
    response = self.client.get('/api/v1/products/',
                               HTTP_HTTPPOLICE_SILENCE='1194 resp')
    self.assertEqual(response.status_code, 401)
```