django-guid

Contents

1	Installation	3
2	2.2 2. Middleware 2.3 3. Logging Configuration	5 5 5 6
3	3.2 VALIDATE_GUID 3.3 RETURN_HEADER 3.4 EXPOSE_HEADER 3.5 INTEGRATIONS 3.6 IGNORE_URLS 3.7 UUID_LENGTH	7 7 7 8 8 8 8 8 8
4	4.1 Getting started 1 4.2 get_guid() 1 4.3 set_guid() 1 4.4 clear_guid() 1	11 11 11 12
5	5.1 Available integrations 1 5.1.1 Sentry 1 5.1.2 Celery 1 5.2 Writing your own integration 1	13 13 15 17
6	The second of th	21 21
7		23 23

	7.2 7.3 7.4 7.5	Use the demo project as a reference	23 23 23 24
8	Upgr	ading Django-GUID 2.x.x to 3.x.x	25
	8.1 8.2	1. Change Middleware	25 25
9	Publi	ish django-guid	27
	9.1		27
	9.2		27
	9.3		27
10	Chan	galog	29
10			29 29
			29 29
	10.2		29 29
			29 29
			30
	10.5		30
			30 30
			30 30
			30 31
			31
			31
			31
			31 32
			32
			32
			32
			32
			32 33
	111 10	1 7H HI 7HIY	44

Django GUID attaches a unique correlation ID/request ID to all your log outputs for every request. In other words, all logs connected to a request now has a unique ID attached to it, making debugging simple.

Which version of Django GUID you should use depends on your Django version and whether you run ASGI or WSGI servers. To determine which Django-GUID version you should use, please see the table below.

Django version	Django-GUID version	
3.1.1 or above	3.x.x - ASGI and WSGI	
3.0.0 - 3.1.0	2.x.x - Only WSGI	
2.2.x	2.x.x - Only WSGI	

Django GUID >= 3.0.0 uses ContextVar to store and access the GUID. Previous versions stored the GUID to an object, making it accessible by using the ID of the current thread.

Resources:

• Free software: BSD License

• Documentation: https://django-guid.readthedocs.io

• Homepage: https://github.com/snok/django-guid

Examples

Log output with a GUID:

```
INFO ... [773fa6885e03493498077a273d1b7f2d] project.views This is a DRF view log, and should have a GUID.

WARNING ... [773fa6885e03493498077a273d1b7f2d] project.services.file Some warning in function

INFO ... [0dlc3919e46e4cd2b2f4ac9a187a8ea1] project.views This is a DRF view log, and should have a GUID.

INFO ... [99d44111e9174c5a9494275aa7f28858] project.views This is a DRF view log, and should have a GUID.

WARNING ... [0dlc3919e46e4cd2b2f4ac9a187a8ea1] project.services.file Some warning in function

WARNING ... [99d44111e9174c5a9494275aa7f28858] project.services.file Some warning in function
```

Log output without a GUID:

```
INFO ... project.views This is a DRF view log, and should have a GUID.

WARNING ... project.services.file Some warning in a function

INFO ... project.views This is a DRF view log, and should have a GUID.

INFO ... project.views This is a DRF view log, and should have a GUID.

WARNING ... project.services.file Some warning in a function

WARNING ... project.services.file Some warning in a function
```

Contents 1

2 Contents

			4
CHA	PT	FR	- 1

Installation

Install using pip:

pip install django-guid

Install using poetry:

poetry add django-guid

Configuration

Once django guid has been installed, add the following to your projects' settings.py:

2.1 1. Installed Apps

Add django_guid to your INSTALLED_APPS:

```
INSTALLED_APPS = [
    ...
    'django_guid',
]
```

2.2 2. Middleware

Add the django_guid.middleware.guid_middleware to your MIDDLEWARE:

```
MIDDLEWARE = [
    'django_guid.middleware.guid_middleware',
    ...
]
```

It is recommended that you add the middleware at the top, so that the remaining middleware loggers include the requests GUID.

2.3 3. Logging Configuration

 $Add\ {\tt django_guid.log_filters.CorrelationId}\ as\ a\ filter\ in\ your\ {\tt LOGGING}\ configuration:$

```
LOGGING = {
    ...
    'filters': {
        'correlation_id': {
             '()': 'django_guid.log_filters.CorrelationId'
        }
    }
}
```

Put that filter in your handler:

And make sure to add the new correlation_id filter to one or all of your formatters:

If these settings were confusing, please have a look in the demo projects' settings.py file for a complete example.

2.4 4. Django GUID Logger (Optional)

If you wish to see the Django GUID middleware outputs, you may configure a logger for the module. Simply add django_guid to your loggers in the project, like in the example below:

This is especially useful when implementing the package, if you plan to pass existing GUIDs to the middleware, as misconfigured GUIDs will not raise exceptions, but will generate warning logs.

Settings

Package settings are added in your settings.py:

Default settings are shown below:

```
DJANGO_GUID = {
    'GUID_HEADER_NAME': 'Correlation-ID',
    'VALIDATE_GUID': True,
    'RETURN_HEADER': True,
    'EXPOSE_HEADER': True,
    'INTEGRATIONS': [],
    'UUID_LENGTH': 32,
    'UUID_FORMAT': 'hex',
}
```

3.1 GUID_HEADER_NAME

• **Default**: Correlation-ID

• Type: string

The name of the GUID to look for in a header in an incoming request. Remember that it's case insensitive.

3.2 VALIDATE_GUID

• Default: True

• Type: boolean

Whether the GUID_HEADER_NAME should be validated or not. If the GUID sent to through the header is not a valid GUID (uuid.uuid4).

3.3 RETURN HEADER

Default: True Type: boolean

Whether to return the GUID (Correlation-ID) as a header in the response or not. It will have the same name as the GUID_HEADER_NAME setting.

3.4 EXPOSE_HEADER

Default: TrueType: boolean

Whether to return Access-Control-Expose-Headers for the GUID header if RETURN_HEADER is True, has no effect if RETURN_HEADER is False. This is allows the JavaScript Fetch API to access the header when CORS is enabled.

3.5 INTEGRATIONS

Default: [] Type: list

Whether to enable any custom or available integrations with django_guid. As an example, using SentryIntegration() as an integration would set Sentry's transaction_id to match the GUID used by the middleware.

3.6 IGNORE_URLS

Default: []Type: list

URL endpoints where the middleware will be disabled. You can put your health check endpoints here.

3.7 UUID LENGTH

Default: 32 Type: int

If a full UUID hex is too long for you, this settings lets you specify the length you wish to use. The chance of collision in a UUID is so low, that most systems will get away with a lot fewer than 32 characters.

3.8 UUID_LENGTH

• Default: hex

• Type: string

If a UUID hex is not suitable for you, this settings lets you specify the format you wish to use. The options are: *hex: The default, a 32 character hexadecimal string. e.g. ee586b0fba3c44849d20e1548210c050 * str: A 36 character string. e.g. ee586b0f-ba3c-4484-9d20-e1548210c050

3.8. UUID_LENGTH 9

10 Chapter 3. Settings

API

4.1 Getting started

You can either use the contextvar directly by importing it with django_guid.middleware import guid, or use the API which also logs changes. If you want to use the contextvar, please see the official Python docs.

To use the API import the functions you'd like to use:

```
from django_guid import get_guid, set_guid, clear_guid
```

4.2 get_guid()

• Returns: str or None, if set by Django-GUID.

Fetches the GUID.

```
guid = get_guid()
```

4.3 set_guid()

• Parameters: guid: str

Sets the GUID to the given input.

```
set_guid('My GUID')
```

4.4 clear_guid()

Clears the guid (sets it to None)

```
clear_guid()
```

4.5 Example usage

```
import requests
from django.conf import settings

from django_guid import get_guid

requests.get(
    url='http://localhost/api',
    headers={
        'Accept': 'application/json',
        settings.DJANGO_GUID['GUID_HEADER_NAME']: get_guid(),
    }
)
```

12 Chapter 4. API

Integrations

Integrations are optional add-ins used to extend the functionality of the Django GUID middleware.

To enable an integration, simply add an integration instance to the INTEGRATIONS field in settings.py, and the relevant integration logic will be executed in the middleware:

```
from django_guid.integrations import SentryIntegration

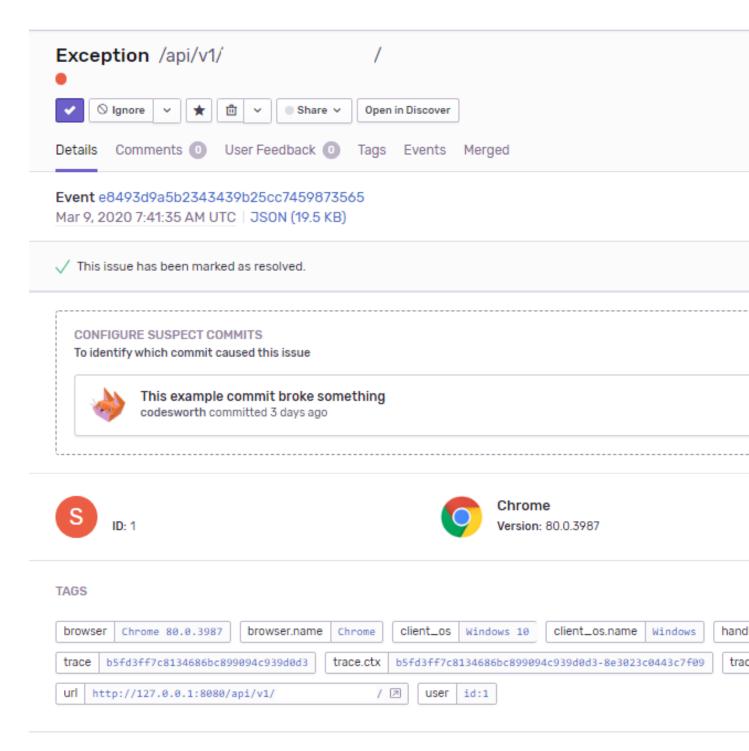
DJANGO_GUID = {
    ...
    'INTEGRATIONS': [SentryIntegration()],
}
```

Integrations are a new addition to Django GUID, and we plan to expand selection in the future. If you are looking for specific functionality that is not yet available, consider creating an issue, making a pull request, or writing your own private integration. Custom integrations classes are simple to write and can be implemented just like package integrations.

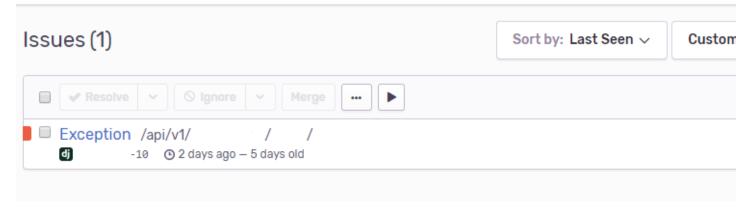
5.1 Available integrations

5.1.1 Sentry

Integrating with Sentry, lets you tag Sentry-issues with a transaction_id. This lets you easily connect an event in Sentry to your logs.



Rather than changing how Sentry works, this is just an additional piece of metadata that you can use to link sources of information about an exception. If you know the GUID of an exception, you can find the relevant Sentry issue by searching for the tag:



To add the integration, simply import SentryIntegration from the integrations folder and add it to your settings:

5.1.2 Celery

The Celery integration enables tracing for Celery workers. There's three possible scenarios:

- 1. A task is published from a request within Django
- 2. A task is published from another task
- 3. A task is published from Celery Beat

For scenario 1 and 2 the existing correlation IDs is transferred, and for scenario 3 a unique ID is generated.

To enable this behavior, simply add it to your list of integrations:

```
from django_guid.integrations import CeleryIntegration

DJANGO_GUID = {
    ...
    'INTEGRATIONS': [
        CeleryIntegration(
            use_django_logging=True,
            log_parent=True,
        )
    ],
}
```

Integration settings

These are the settings you can pass when instantiating the CeleryIntegration:

- use_django_logging: Tells celery to use the Django logging configuration (formatter).
- log_parent: Enables the CeleryTracing log filter described below.
- uuid_length: Lets you optionally trim the length of the integration generated UUIDs.

• sentry_integration: If you use Sentry, enabling this setting will make sure transaction_id is set (like in the SentryIntegration) for Celery workers.

Celery integration log filter

Out of the box, the CeleryIntegration will make sure a correlation ID is present for any Celery task; but how do you make sense of duplicate logs in subprocesses? Given these example tasks, what happens if we a worker picks up debug_task as scheduled by Celery beat?

```
@app.task()
def debug_task() -> None:
   logger.info('Debug task 1')
    second_debug_task.delay()
    second_debug_task.delay()
@app.task()
def second_debug_task() -> None:
    logger.info('Debug task 2')
    third_debug_task.delay()
    fourth_debug_task.delay()
@app.task()
def third_debug_task() -> None:
   logger.info('Debug task 3')
    fourth_debug_task.delay()
    fourth_debug_task.delay()
@app.task()
def fourth_debug_task() -> None:
    logger.info('Debug task 4')
```

It will be close to impossible to make sense of the logs generated, simply because the correlation ID tells you nothing about how subprocesses are linked. For this, the integration provides an additional log filter, CeleryTracing which logs the ID of the current process and the ID of the parent process. Using the log filter, the log output of the example tasks becomes:

```
correlation-id
                               current-id
                  parent-id
                                   INFO [3b162382e1] [
                     None ] [93ddf3639c] demoproj.celery - Debug task 1
INFO [3b162382e1] [93ddf3639c] [24046ab022] demoproj.celery - Debug task 2
INFO [3b162382e1] [93ddf3639c] [cb5595a417] demoproj.celery - Debug task 2
INFO [3b162382e1] [24046ab022] [08f5428a66] demoproj.celery - Debug task 3
INFO [3b162382e1] [24046ab022] [32f40041c6] demoproj.celery - Debug task 4
INFO [3b162382e1] [cb5595a417] [1c75a4ed2c] demoproj.celery - Debug task 3
INFO [3b162382e1] [08f5428a66] [578ad2d141] demoproj.celery - Debug task 4
INFO [3b162382e1] [cb5595a417] [21b2ef77ae] demoproj.celery - Debug task 4
INFO [3b162382e1] [08f5428a66] [8cad7fc4d7] demoproj.celery - Debug task 4
INFO [3b162382e1] [1c75a4ed2c] [72a43319f0] demoproj.celery - Debug task 4
INFO [3b162382e1] [1c75a4ed2c] [ec3cf4113e] demoproj.celery - Debug task 4
```

At the very least, this should provide a mechanism for linking parent/children processes in a meaningful way.

To set up the filter, add django_guid.integrations.celery.log_filters.CeleryTracing as a fil-

ter in your LOGGING configuration:

Put that filter in your handler:

And then you can optionally add celery_parent_id and/or celery_current_id to you formatter:

However, if you use a log management tool which lets you interact with log.extra value, leaving the filters out of the formatter might be preferable.

If these settings were confusing, please have a look in the demo projects' settings.py file for a complete example.

5.2 Writing your own integration

Creating your own custom integration requires you to inherit the Integration base class (which is found here).

The class is quite simple and only contains four methods and a class attribute:

```
class Integration(object):
    """
    Integration base class.
    """

identifier = None  # The name of your integration

def __init__(self) -> None:
    if self.identifier is None:
```

(continues on next page)

(continued from previous page)

```
raise ImproperlyConfigured('`identifier` cannot be None')

def setup(self) -> None:
    """
    Holds validation and setup logic to be run when Django starts.
    """
    pass

def run(self, guid: str, **kwargs) -> None:
    """
    Code here is executed in the middleware, before the view is called.
    """
    raise ImproperlyConfigured(f'The integration `{self.identifier}` is missing a
    `run` method')

def cleanup(self, **kwargs) -> None:
    """
    Code here is executed in the middleware, after the view is called.
    """
    pass
```

To extend this into a fully functioning integration, all you need to do is

- 1. Create a new class that inherits the base class
- 2. Set the identifier to a string, naming your integration
- 3. Add the logic you wish to be executed to the run method
- 4. Add logic to each of the remaining methods as required

A fully functioning integration can be as simple as this:

```
from django_guid.integrations import Integration

class CustomIntegration(Integration):

   identifier = 'CustomIntegration'  # Should be a string

def run(self, guid, **kwargs):
     print('This is a functioning Django GUID integration')
```

There are four built in methods which are always called. You can chose to override these in your custom integration.

5.2.1 Method descriptions

Setup

The setup method is run when Django starts, and is a good place to keep your integration-specific validation logic, like, e.g., making sure all dependencies are installed:

```
from third_party_sdk import start_service

class CustomIntegration(Integration):

identifier = 'CustomIntegration'
```

(continues on next page)

(continued from previous page)

Run

The run method is required, and is designed to hold code that should be executed each time the middleware is run (for each request made to the server), before the view is called.

This function **must** accept both guid and **kwargs. Additional arguments are likely be added in the future, and so the function must be able to handle those new arguments.

```
from third_party_sdk import send_guid_to_system

class CustomIntegration(Integration):

   identifier = 'CustomIntegration'

   def setup(self):
        ...

   def run(self, guid, **kwargs):
        send_guid_to_system(guid=guid)
```

Cleanup

The cleanup method is the final method called in the middleware, each time the middleware, each time the middleware is run, after a view has been called.

This function **must** accept **kwargs. Additional arguments are likely be added in the future, and so the function must be able to handle those new arguments.

```
from third_party_sdk import clean_up_guid

class CustomIntegration(Integration):

   identifier = 'CustomIntegration'

   def setup(self):
        ...

   def run(self, guid, **kwargs):
        ...

   def cleanup(self, **kwargs):
        clean_up_guid()
```

Extended example

Using tools like ab (Apache Benchmark) we can benchmark our application with concurrent requests, simulating heavy load. This is an easy way to display the strength of django-guid.

6.1 Experiment

First, we run our application like we would in a production environment:

```
gunicorn demoproj.wsgi:application --bind 127.0.0.1:8080 -k gthread -w 4
```

Then, we do 3 concurrent requests to one of our endpoints:

```
ab -c 3 -n 3 http://127.0.0.1:8080/api
```

This results in these logs:

```
django-quid git: (master) gunicorn demoproj.wsgi:application --bind 127.0.0.1:8080 -k.
⇒qthread -w 4
[2020-01-14 16:36:15 +0100] [8624] [INFO] Starting gunicorn 20.0.4
[2020-01-14 16:36:15 +0100] [8624] [INFO] Listening at: http://127.0.0.1:8080 (8624)
[2020-01-14 16:36:15 +0100] [8624] [INFO] Using worker: gthread
[2020-01-14 16:36:15 +0100] [8627] [INFO] Booting worker with pid: 8627
[2020-01-14 16:36:15 +0100] [8629] [INFO] Booting worker with pid: 8629
[2020-01-14 16:36:15 +0100] [8630] [INFO] Booting worker with pid: 8630
[2020-01-14 16:36:15 +0100] [8631] [INFO] Booting worker with pid: 8631
# First request
INFO 2020-01-14 15:40:48,953 [None] django_guid.middleware No Correlation-ID found in.
→the header. Added Correlation-ID: 773fa6885e03493498077a273d1b7f2d
INFO 2020-01-14 15:40:48,954 [773fa6885e03493498077a273dlb7f2d] demoproj.views This_
⇒is a DRF view log, and should have a GUID.
WARNING 2020-01-14 15:40:48,954 [773fa6885e03493498077a273dlb7f2d] demoproj.services.
 →useless_file Some warning in a function
                                                                         (continues on next page)
```

(continued from previous page)

```
DEBUG 2020-01-14 15:40:48,954 [773fa6885e03493498077a273d1b7f2d] django_quid.
→middleware Deleting 773fa6885e03493498077a273d1b7f2d from _quid
# Second and third request arrives at the same time
INFO 2020-01-14 15:40:48,955 [None] django_guid.middleware No Correlation-ID found in.
→the header. Added Correlation-ID: 0d1c3919e46e4cd2b2f4ac9a187a8ea1
INFO 2020-01-14 15:40:48,955 [None] django_guid.middleware No Correlation-ID found in.
→the header. Added Correlation-ID: 99d44111e9174c5a9494275aa7f28858
INFO 2020-01-14 15:40:48,955 [0dlc3919e46e4cd2b2f4ac9a187a8ea1] demoproj.views This.
⇒is a DRF view log, and should have a GUID.
INFO 2020-01-14 15:40:48,955 [99d44111e9174c5a9494275aa7f28858] demoproj.views This.
⇒is a DRF view log, and should have a GUID.
WARNING 2020-01-14 15:40:48,955 [0d1c3919e46e4cd2b2f4ac9a187a8ea1] demoproj.services.
⇒useless_file Some warning in a function
WARNING 2020-01-14 15:40:48,955 [99d44111e9174c5a9494275aa7f28858] demoproj.services.
→useless_file Some warning in a function
DEBUG 2020-01-14 15:40:48,955 [0dlc3919e46e4cd2b2f4ac9a187a8ea1] django_guid.
→middleware Deleting 0d1c3919e46e4cd2b2f4ac9a187a8ea1 from _quid
DEBUG 2020-01-14 15:40:48,955 [99d44111e9174c5a9494275aa7f28858] django_guid.
→middleware Deleting 99d44111e9174c5a9494275aa7f28858 from _quid
```

If we have a close look, we can see that the first request is completely done before the second and third arrives. How ever, the second and third request arrives at the exact same time, and since gunicorn is run with multiple workers, they are also handled concurrently. The result is logs that get mixed together, making them impossible to differentiate.

Now, depending on how you view your logs you can easily track a single request down. In these docs, try using ctrl + f and search for 99d44111e9174c5a9494275aa7f28858

If you're logging to a file you could use grep:

Troubleshooting

7.1 Turn on Django debug logging

Set the logger to log DEBUG logs from django-guid:

7.2 Run Django with warnings enabled

Start manage.py runserver with the -Wd parameter to enable warnings that normally are suppressed.

```
python -Wd manage.py runserver
```

7.3 Use the demo project as a reference

There is a simple demo project available in the demoproj folder, have a look at that to see best practices.

7.4 Read the official logging docs

Read the official docs about logging.

7.5 Ask for help

Still no luck? Create an issue on GitHub and ask for help.

Upgrading Django-GUID 2.x.x to 3.x.x

Upgrading to Django>=3.1.1 and using async/ASGI requires you to use Django-GUID version 3 or higher. In order to upgrade, you need to do the following:

8.1 1. Change Middleware

- From: django_guid.middleware.GuidMiddleware
- To: django_guid.middleware.guid_middleware

```
MIDDLEWARE = [
    'django_guid.middleware.guid_middleware',
    ...
]
```

8.2 2. Change API functions (if you used them)

From:

```
from django_guid.middleware import GuidMiddleware
GuidMiddleware.get_guid()
GuidMiddleware.set_guid('x')
GuidMiddleware.delete_guid()
```

To:

```
from django_guid import clear_guid, get_guid, set_guid
get_guid()
set_guid('x')
clear_guid() # Note the name change from delete to clear
```

Publish django-guid

This site is intended for the contributors of django-guid.

9.1 Publishing to test-PyPi

Before publishing a new version of the package, it is advisable that you publish a test-package. Among other things, this will flag any possible issues the current interation of the package might have.

Please note, to publish a test-package, you need to have a test-pypi API token.

Using the API token, you can publish a test-package by running:

```
poetry config repositories.test https://test.pypi.org/legacy/
poetry config pypi-token.test <api-token>
poetry publish --build --no-interaction --repository test
```

9.2 Publishing to PyPi

Publishing django-guid can be done by creating a github release in the django-guid repository. Before publishing a release, make sure that the version is consistent in django_guid/__init__.py, pyproject.toml and in the title of the actual publication. The title of the release should simply be the version number and the release body should contain the changelog for the patch.

9.3 Read the docs

Read the docs documentation can be built locally by entering the docs folder and writing make html. It requires that you have installed sphinx and the theme we're using, which is sphinx_rtd_theme. Both can be installed through pip.

Changelog

10.1 3.2.1 - 13.12.2021

Changes can be seen here going forward.

10.2 3.2.0 - 04.12.2020

Features

• Added a new setting, sentry_integration to the Celery integration, which sets transaction_id for Celery workers.

10.3 3.1.0 - 18.11.2020

Features

- Added a new setting, UUID_LENGTH, which lets you crop the UUIDs generated for log filters.
- Added a new integration for tracing with Celery.

10.4 3.0.1 - 12.11.2020

Bugfix

• Importing an integration before a SECRET_KEY was set would cause a circular import.

10.5 3.0.0 - 28.10.2020 - Full Django3.1+(ASGI/async) support!

Brings full async/ASGI (as well as the old WSGI) support to Django GUID using ContextVars instead of thread locals.

Breaking changes

This version requires Django>=3.1.1. For previous versions of Django, please use django-guid<3.0.0 (Such as django-guid==2.2.0).

If you've already implemented django-guid in your project and are currently upgrading to Django>=3.1.1, please see the upgrading docs.

10.6 2.2.0 - 04.11.2020

Features

• IGNORE_URLS setting which disables the middleware on a list of URLs.

Other

· Added docs for the new setting

10.7 2.1.0 - 03.11.2020

Features

- Integration module, which enables the users of django_guid to extend functionality.
- Added a integration for Sentry, tagging the Sentry issue with the GUID used for the request.

Other

· Added docs for integrations

10.8 2.0.0 - 02.03.2020

This version contains backwards incompatible changes. Read the entire changelog before upgrading

Deprecated

• SKIP_CLEANUP: After a request is finished, the Correlation ID is cleaned up using the request_finished Django signal.

Incompatible changes

• django guid must be in INSTALLED APPS due to usage of signals.

Improvements

· Restructured README and docs.

10.9 1.1.1 - 12.02.2020

Improvements

• Fixed EXPOSE_HEADER documentation issue. New release has to be pushed to fix PyPi docs.

10.10 1.1.0 - 10.02.2020

Features

 Added a EXPOSE_HEADER setting, which will add the Access-Control-Expose-Headers with the RETURN_HEADER as value to the response. This is to allow the JavaScript Fetch API to access the header with the GUID

10.11 1.0.1 - 08.02.2020

Bugfix

· Fixed validation of incoming GUID

Improvements

- Changed the middleware.py logger name to django_guid
- · Added a WARNING-logger for when validation fails
- Improved README

Other

• Added CONTRIBUTORS.rst

10.12 1.0.0 - 14.01.2020

Features

· Added a RETURN_HEADER setting, which will return the GUID as a header with the same name

Improvements

- Added a Django Rest Framework test and added DRF to the demoproj
- Improved tests to also check for headers in the response
- · Added tests for the new setting
- · Added examples to README.rst and docs, to show how the log messages get formatted
- Added an API page to the docs
- Fixed the readthedocs menu bug

10.9. 1.1.1 - 12.02.2020 31

10.13 0.3.1 - 13.01.2020

Improvements

- Changed logging from f'strings' to %strings
- Pre-commit hooks added, including black and flake8
- Added CONTRIBUTING.rst
- Added github actions to push to PyPi with github tags

10.14 0.3.0 - 10.01.2020

Features

Added a SKIP_CLEANUP setting

Improvements

- Improved all tests to be more verbose
- Improved the README with more information and a list of all the available settings

10.15 0.2.3 - 09.01.2020

Improvements

- Added tests written in pytests, 100% codecov
- Added Django2.2 and Django3 to github workflow as two steps
- · Improved logging

10.16 0.2.2 - 21.12.2019

Improvements

• Removed the mandatory DJANGO_GUID settings in settings.py. Added an example project to demonstrate how to set the project up

10.17 0.2.1 - 21.12.2019

Improvements

· Workflow added, better docstrings, easier to read flow

10.18 0.2.0 - 21.12.2019

Features

• Header name and header GUID validation can be specified through Django settings

10.19 20.10.2019

• Initial release

10.19. 20.10.2019