
django-inviteme-form Documentation

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CONTENTS

Django-invite-form provides a simple contact form that only hits the database after the user confirm her email address. It sends threaded emails to avoid response blocking.

DEMO PRPJECT

Django-inviteme comes with a demo project to see the app in action.

1.1 Demo quick setup

1. `cd` into the demo directory
2. `python manage syncdb` will create a simple SQLite db file for the demo.
3. Run the server `python manage runserver` and browse <http://localhost:8000>

1.2 Email settings

By default the demo project send email messages to the standard output. You can customize a few email settings to allow Django sending emails. This will allow you to receive email messages with confirmation URLs that actually work.

Edit the `demo/settings.py` file, go to the end of the file and customize the following settings. Provide actual values of your email address and email provider:

```
EMAIL_HOST            = "" # gmail: "smtp.gmail.com"
EMAIL_PORT            = "" # gmail: "587"
EMAIL_HOST_USER       = "" # gmail: user@gmail.com
EMAIL_HOST_PASSWORD   = ""
EMAIL_USE_TLS         = True # gmail

DEFAULT_FROM_EMAIL    = "Your site name <user@gmail.com>"
SERVER_EMAIL          = DEFAULT_FROM_EMAIL

# Fill in actual EMAIL settings above, and comment out the
# following line to let the django demo sending actual emails
# EMAIL_BACKEND = 'django.core.mail.backends.console.EmailBackend'

INVITEME_NOTIFY_TO = "Your name <user@gmail.com>"
```

The domain used in the links sent by email refers to *example.com* and thus are not associated with your django development web server. Enter in the admin UI and change the domain name to something like *localhost:8000*.

1.3 Register a signal receiver

After trying the demo site you may like to add a receiver for any of the signals sent during the workflow.

Read the *Signals* to know more about Django-inviteme signals.

Read the *Signals and receivers* in the Tutorial to see an example.

TUTORIAL

Django-inviteme is a reusable app that relies on its own code and doesn't require any other extra app.

Installation

Installing Django-inviteme is as simple as checking out the source and adding it to your project or `PYTHONPATH`.

Use `git`, `pip` or `easy_install` to check out Django-inviteme from [Github](#) or get a release from [PyPI](#):

1. Use **git** to clone the repository, and then install the package (read more about [git](#)):
 - `git clone git://github.com/danirus/django-inviteme.git` and
 - `python setup.py install`
2. Or use **pip** (read more about [pip](#)):
 - Do `pip install django-inviteme`, or
 - Edit your project's `requirements` file and append either the [Github](#) URL or the package name `django-inviteme`, and then do `pip install -r requirements`.
3. Or use **easy_install** (read more about [easy_install](#)):
 - Do `easy_install django-inviteme`

2.1 Configuration

1. Add `'inviteme'` to your `INSTALLED_APPS` setting.
2. Add `url(r'^invite/', include('inviteme.urls'))` to your `urls.py`.
3. Create a `inviteme` directory in your templates directory and copy the default templates from `django-inviteme` into the new created directory.
4. Run `python manage.py syncdb` that creates the `inviteme_contact_mail` table.

2.1.1 Customization

1. Optionally you can add some settings to control Django-contactme behaviour (see [Settings](#)), but they all have sane defaults.
2. Customize the templates (see [Templates](#)) in your `inviteme` templates directory to make them fit in your design.

2.2 Workflow

Workflow described in 3 actions:

1. Get the Contact Form.
 1. Render the Contact Form page. Omit this at will by using the `render-mail-form` templatetag (see *Templatetags*) in your own templates.
2. Post the Contact Form.
 1. Check if there are *form security errors*. Django_ContactMe forms are protected with `timestamp`, `security_hash` and `honeypot` field, following the same approach as the built-in *Django Comments Framework*. In case of *form security errors* send a 400 code response and stop.
 2. Check whether there are other *form errors* (basically check if the `email` field is empty). In such a case render the *Mail Form* again, with the *form errors* and stop.
 3. Send signal `inviteme.signals.confirmation_will_be_requested`. If any receiver returns `False`, send a discarded response to the user and stop.
 4. Send a confirmation email to the user with a confirmation URL.
 5. Send signal `inviteme.signals.confirmation_requested`.
 6. Render a “*confirmation has been sent to you by email*” template.
3. Visit the Confirmation URL.
 1. Check whether the token in the confirmation URL is correct. If it isn't raise a 404 code response and stop.
 2. Create a `ContactMail` model instance with the email address secured in the URL.
 3. Send signal `confirmation_received`. If any receiver return `False`, send a discarded response to the user and stop.
 4. Send an email to `settings.INVITEME_NOTIFY_TO` addresses indicating that a new invitation request has been received.
 5. Render a “*your invitation request has been received, thank you*” template.

2.2.1 Creating the secure token for the confirmation URL

The Confirmation URL sent by email to the user has a secured token with the contact form data. To create the token Django-ContactMe uses the module `signed.py` authored by Simon Willison and provided in *Django-OpenID*.

`django_openid.signed` offers two high level functions:

- **dumps**: Returns URL-safe, sha1 signed base64 compressed pickle of a given object.
- **loads**: Reverse of `dumps()`, raises `ValueError` if signature fails.

A brief example:

```
>>> signed.dumps("hello")
'UydoZWxsbycKcDAKLg.QLtjWHYe7udYuZeQyLlafPqAx1E'

>>> signed.loads('UydoZWxsbycKcDAKLg.QLtjWHYe7udYuZeQyLlafPqAx1E')
'hello'

>>> signed.loads('UydoZWxsbycKcDAKLg.QLtjWHYe7udYuZeQyLlafPqAx1E-modified')
BadSignature: Signature failed: QLtjWHYe7udYuZeQyLlafPqAx1E-modified
```

There are two components in dump's output `UydoZWxsbycKcDAKLg.QLt jWHYe7udYuZeQyLlafPqAx1E`, separated by a `.`. The first component is a URLsafe base64 encoded pickle of the object passed to `dumps()`. The second component is a base64 encoded hmac/SHA1 hash of `"$first_component.$secret"`.

Calling `signed.loads(s)` checks the signature BEFORE unpickling the object -this protects against malformed pickle attacks. If the signature fails, a `ValueError` subclass is raised (actually a `BadSignature`).

2.3 Signals and receivers

The workflow mentions that django-inviteme sends 3 signals:

1. **confirmation_will_be_requested**: Sent just before a confirmation message is requested.
2. **confirmation_requested**: Sent just after a confirmation message is requested.
3. **confirmation_received**: Sent just after a confirmation has been received.

See *Signals* to know more.

You may want to extend django-inviteme by registering a receiver for any of this signals.

An example function receiver might check the datetime a user submitted a contact message and the datetime the confirmation URL has been clicked. If the difference between them is over 7 days the message could be discarded with a graceful *"sorry, too old message"* template.

Extending the demo site with the following code would do the job:

```
#-----
# append the code below to demo/views.py:

from datetime import datetime, timedelta
from inviteme import signals

def check_submit_date_is_within_last_7days(sender, data, request, **kwargs):
    plus7days = timedelta(days=7)
    if data["submit_date"] + plus7days < datetime.now():
        return False
signals.confirmation_received.connect(check_submit_date_is_within_last_7days)

#-----
# change get_instance_data in inviteme/forms.py to cheat a bit and
# make Django believe that the contact form was submitted 7 days ago:

def get_instance_data(self):
    """
    Returns the dict of data to be used to create a contact message.
    """
    from datetime import timedelta # ADD THIS

    return dict(
        email = self.cleaned_data["email"],
        submit_date = datetime.datetime.now(), # COMMENT THIS
        submit_date = datetime.datetime.now() - timedelta(days=8), # ADD THIS
    )
```

Try the demo site again and see that the *inviteme/discarded.html* template is rendered after clicking on the confirmation URL.

SIGNALS

List of signals sent by the Django-inviteme app.

3.1 Confirmation will be requested

inviteme.signals.confirmation_will_be_requested Sent just before a confirmation message is requested.

A message is sent to the user right after the contact form is been posted and validated to verify the user's email address. This signal may be used to ban email addresses or check message content. If any receiver returns False the process is discarded and the user receives a discarded message.

3.2 Confirmation has been requested

inviteme.signals.confirmation_requested Sent just after a confirmation message is requested.

A message is sent to the user right after the contact form is been posted and validated to verify the user's email address. This signal may be used to trace contact messages posted but never confirmed.

3.3 Confirmation has been received

inviteme.signals.confirmation_received Sent just after a confirmation has been received.

A confirmation is received when the user clicks on the link provided in the confirmation message sent by email. This signal may be used to validate that the submit date stored in the URL is no older than a certain time. If any receiver returns False the process is discarded and the user receives a discarded message.

See a simple example of a receiver for this signal: *Signals and receivers*, in the Tutorial.

TEMPLATETAGS

Django-inviteme has a templatetag to render the contact form.

4.1 `render_contact_form`

Sites may use a hidden div that `fadeIn/slideUp` when clicking on **request an invitation** link. Use the `render_mail_form` templatetag to render the mail form. The `inviteme/form.html` template will then be used to render the form.

SETTINGS

This is the comprehensive list of settings django-inviteme recognizes.

5.1 INVITEME_SALT

Optional

This setting establish the ASCII string `extra_key` used by `signed.dumps` to salt the contact form hash. As `signed.dumps` docstring says, just in case you're worried that the NSA might try to brute-force your SHA-1 protected secret.

An example:

```
INVITEME_SALT = 'G0h5gt073h6gH4p25GS2g5AQ25hTm256yGt134tMP5TgCX$&HKOYRV'
```

Defaults to an empty string.

5.2 INVITEME_NOTIFY_TO

Optional

This setting establish the email address that will be notified on new contact messages. May be a list of email addresses separated by commas.

An example:

```
INVITEME_NOTIFY_TO = 'Alice <alice@example.com>, Joe <joe@example.com>'
```

Defaults to `settings.ADMINS`.

TEMPLATES

List of template files coming with Django-ContactMe.

inviteme/contactme.html Entry point for the Django-ContactMe form. Template rendered when visiting the `/contact/` URL. It makes use of the `render_contact_form` templatetag (see [Templatetags](#)).

inviteme/form.html Used by the templatetag `render_contact_form` (see [Templatetags](#)).

inviteme/preview.html Rendered either when the contact form has errors or when the user click on the `preview` button.

inviteme/confirmation_email.txt Email message sent to the user when the contact form is clean, after the user clicks on the `post` button.

inviteme/confirmation_sent.html Rendered if the contact form is clean when the user clicks on the `post` button and right after sending the confirmation email.

inviteme/discarded.html Rendered if a receiver of the `confirmation_received` signal returns `False`. The signal `confirmation_received` is sent when the user click on the URL sent by email to confirm the contact message. See [Signals](#).

inviteme/accepted.html Rendered when the user click on the URL sent by email to confirm the contact message. If there are no receivers of the signal `confirmation_received` or none of the receivers returns `False`, the template is rendered and a `ContactMsg` model instance is created.

QUICK START

1. Add `inviteme` to `INSTALLED_APPS`.
2. Add `url(r'^invite/', include('inviteme.urls'))` to your root `URLconf`.
3. `syncdb`, `runserver`, and
4. Hit <http://localhost:8000/invite/> in your browser!

WORKFLOW IN SHORT

The user...

1. Clicks on the *request an invitation* link of your site.
2. She types her email address and clicks on *request*.
3. Then Django-Inviteme:
 1. Creates a token with the form data.
 2. Sends an email to her with a confirmation URL containing the token.
1. She receives the email, she opens it, and she clicks on the confirmation link.
2. Then Django-Inviteme:
 1. Check that the token is correct and creates a `ContactEmail` model instance.
 2. Sends an email to `INVITEME_NOTIFY_TO` addresses notifying that a new contact email has arrived.
 3. And shows a template being grateful to her for the message.

Read a longer workflow description in the [Workflow](#) section of the Tutorial.