Django JET2 Documentation

Release 1.0.12

TIK (Technology Innovation Network)

Apr 17, 2020

Documentation

CHAPTER 1

About

Next Generation django-jet2 (Modern template for Django admin interface with improved functionality)

CHAPTER 2

Contents

2.1 Getting Started

Contents:

2.1.1 Installation

Note: After following this instruction Django JET dashboard won't be active (as it is located into a separate application). If you want to make it work, you will have to enable dashboard application by following *Dashboard Installation* steps too.

- Download and install latest version of Django JET:

```
pip install django-jet2
# or
easy_install django-jet2
```

- Add 'jet' application to the INSTALLED_APPS setting of your Django project settings.py file (note it should be before 'django.contrib.admin'):

```
INSTALLED_APPS = (
    ...
    'jet',
    'django.contrib.admin',
    ...
)
```

- Make sure `django.template.context_processors.request` context processor is enabled in settings.py:

```
TEMPLATES = [
    {
        'BACKEND': 'django.template.backends.django.DjangoTemplates',
        'DIRS': [],
        'APP_DIRS': True,
        'OPTIONS': {
            'context_processors': [
                ...
                'django.template.context_processors.request',
                ...
            ],
        },
    },
]
```

- Add URL-pattern to the urlpatterns of your Django project urls.py file (they are needed for related–lookups and autocompletes):

```
urlpatterns = patterns(
    '',
    path('jet/', include('jet.urls', 'jet')),  # Django JET URLS
    path('admin/', include(admin.site.urls)),
    ...
)
```

- Create database tables:

```
python manage.py migrate jet
```

- Collect static if you are in production environment:

```
python manage.py collectstatic
```

- Clear your browser cache

2.1.2 Dashboard Installation

Note: Dashboard is located into a separate application. So after a typical JET installation it won't be active. To enable dashboard application follow these steps:

- Add 'jet.dashboard' application to the INSTALLED_APPS setting of your Django project settings.py file (note it should be before 'jet'):

```
INSTALLED_APPS = (
    ...
    'jet.dashboard',
    'jet',
    'django.contrib.admin',
    ...
)
```

- Add URL-pattern to the urlpatterns of your Django project urls.py file (they are needed for related–lookups and autocompletes):

```
urlpatterns = patterns(
    '',
    path('jet/', include('jet.urls', 'jet')),  # Django JET URLS
    path('jet/dashboard/', include('jet.dashboard.urls', 'jet-dashboard')),  # Django␣
↪JET dashboard URLS
    path('admin/', include(admin.site.urls)),
    ...
)
```

- **For Google Analytics widgets only** install python package:

```
pip install google-api-python-client==1.4.1
```

- Create database tables:

```
python manage.py migrate dashboard
```

- Collect static if you are in production environment:

```
python manage.py collectstatic
```

Dashboard installed! Learn about making your custom dashboard here *Dashboard*.

2.2 Configuration

Contents:

2.2.1 Config file

Options available in settings.py:

JET_DEFAULT_THEME

Django JET allows you to change default theme. This feature is mainly used for customizing color schemes rather than making absolutely different themes. This option in fact make Django load different css styles.

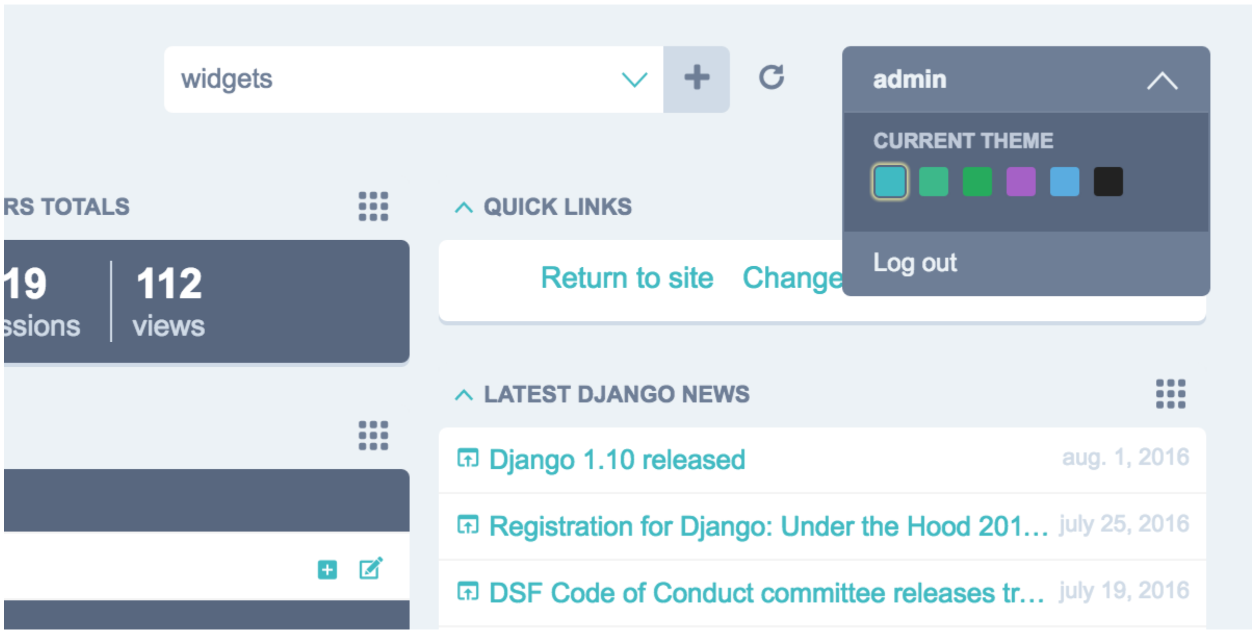
Possible built-in themes are:

- default
- green
- light-violet
- light-green
- light-blue
- light-gray

To change theme use parameter:

```
JET_DEFAULT_THEME = 'light-gray'
```

JET_THEMES



You can allow your users to change admin panel color scheme. This option will add color scheme chooser to the user dropdown menu. Make `JET_THEMES` an empty list to disable this feature.

```
JET_THEMES = [
    {
        'theme': 'default', # theme folder name
        'color': '#47bac1', # color of the theme's button in user menu
        'title': 'Default' # theme title
    },
    {
        'theme': 'green',
        'color': '#44b78b',
        'title': 'Green'
    },
    {
        'theme': 'light-green',
        'color': '#2faa60',
        'title': 'Light Green'
    },
    {
        'theme': 'light-violet',
        'color': '#a464c4',
        'title': 'Light Violet'
    },
    {
        'theme': 'light-blue',
        'color': '#5EADDE',
        'title': 'Light Blue'
    },
    {
        'theme': 'light-gray',
        'color': '#222',
        'title': 'Light Gray'
```

(continues on next page)

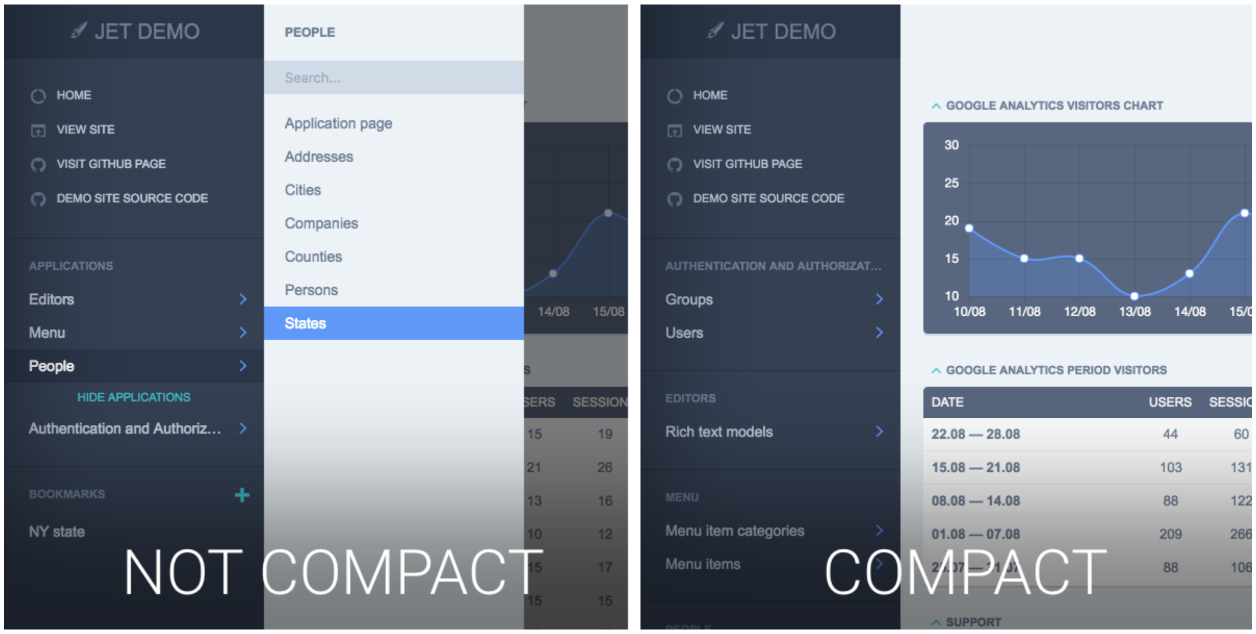
(continued from previous page)

```
    }
]
```

CUSTOM JET_THEME

You are free to add your own color schemes by adding new folder to **/static/jet/css/themes/**. You can use **/jet/static/jet/css/themes/light-violet/** folder as an example (available in Django JET repository). _variables.scss contains **all** customizable variables. You'll have to compile all .scss files in theme directory to start using your own theme.

COMPACT MENU



If you don't have a lot of apps and models it can be annoying to have a two-level menu. In this case you can use menu's compact mode, which will list applications and models in the side menu without need to move pointer over applications to show models.

```
JET_SIDE_MENU_COMPACT = True
```

Default is `False`

CUSTOM MENU

By default JET displays all applications and it models in the side menu in the alphabetical order. To display applications and models you want or to change their order you can use `JET_SIDE_MENU_ITEMS` setting.

```
JET_SIDE_MENU_ITEMS = [  # A list of application or custom item dicts
    {'label': _('General'), 'app_label': 'core', 'items': [
        {'name': 'help.question'},
        {'name': 'pages.page', 'label': _('Static page')},
        {'name': 'city'},
```

(continues on next page)

(continued from previous page)

```
        {'name': 'validationcode'},
        {'label': _('Analytics'), 'url': 'http://example.com', 'url_blank': True},
    ]},
    {'label': _('Users'), 'items': [
        {'name': 'core.user'},
        {'name': 'auth.group'},
        {'name': 'core.userprofile', 'permissions': ['core.user']},
    ]},
    {'app_label': 'banners', 'items': [
        {'name': 'banner'},
        {'name': 'bannertype'},
    ]},
]
```

JET_SIDE_MENU_ITEMS is a list of application or custom item dicts. Each item can have the following keys:

- *app_label* - application name
- *label* - application text label
- *items* - list of children items
- *url* - custom url (format is described below)
- *url_blank* - open url in new table (boolean)
- *permissions* - list of required permissions to display item

Setting *items* and either *app_label* or *label* is required. Other keys are optional to override default behavior. Order of items is respected. Each menu item is also a dict with the following keys:

- *name* - model name (can be either *MODEL_NAME* or *APP_LABEL.MODEL_NAME*)
- *label* - item text label
- *url* - custom url (format is described below)
- *url_blank* - open url in new table (boolean)
- *permissions* - list of required permissions to display item

Setting either *name* or *label* is required. Other keys are optional to override default behavior. Order of items is respected.

URLs can be either *string* or *dict*. Examples of possible values:

- http://example.com/
- {'type': 'app', 'app_label': 'pages'}
- {'type': 'model', 'app_label': 'pages', 'model': 'page'}
- {'type': 'reverse', 'name': 'pages:list', 'args': [1], 'kwargs': {'category': 2}}

Deprecated since version 1.0.6: Old way of customizing menu items via *JET_SIDE_MENU_CUSTOM_APPS* setting is now deprecated in favor of new *JET_SIDE_MENU_ITEMS* setting.

```
JET_SIDE_MENU_CUSTOM_APPS = [
    ('core', [ # Each list element is a tuple with application name (app_
↪label) and list of models
        'User',
        'MenuItem',
        'Block',
    ]),
    (‘shops’, [
        ‘Shop’,
        ‘City’,
        ‘MetroStation’,
    ]),
    (‘feedback’, [
        ‘Feedback’,
    ]),
]
```

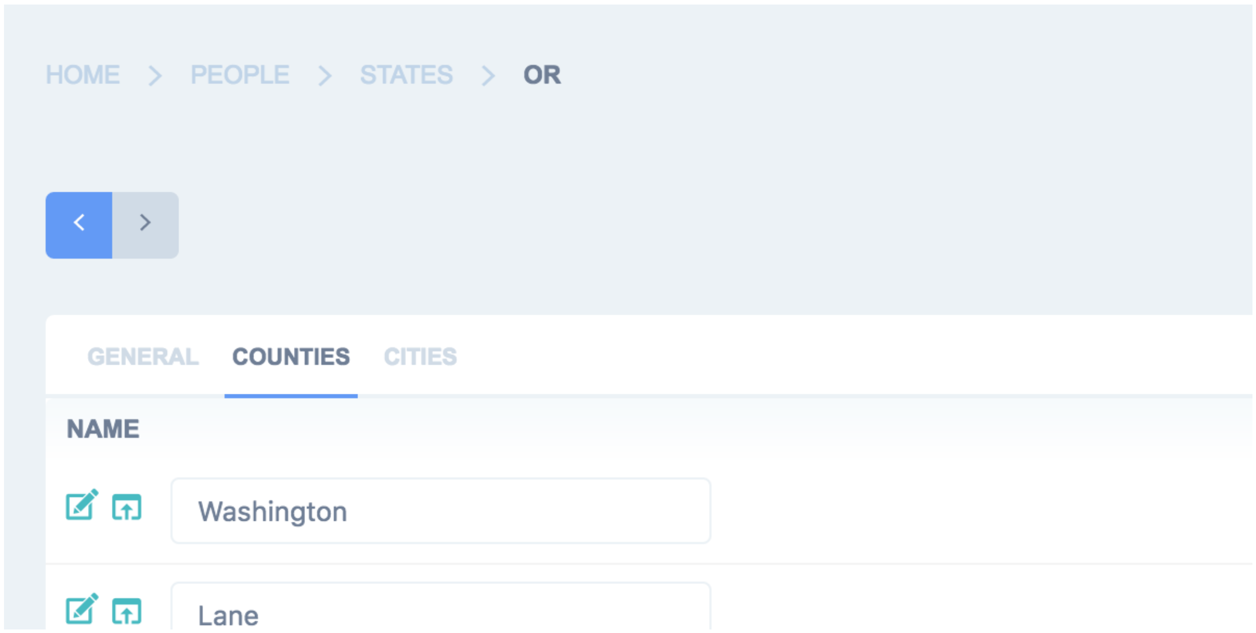
If have multiple admin sites and you want to specify different menu applications for each admin site, wrap menu lists in dictionary with admin site names as keys:

```
JET_SIDE_MENU_ITEMS = {
    'admin': [
        {'label': _('General'), 'app_label': 'core', 'items': [
            {'name': 'help.question'},
            {'name': 'pages.page'},
            {'name': 'city'},
            {'name': 'validationcode'},
        ]},
        ...
    ],
    'custom_admin': [
        {'app_label': 'talks', 'items': [
            {'name': 'talk'},
            {'name': 'talkmessage'},
        ]},
        ...
    ]
}
```

Note: You can use `jet_side_menu_items_example` management command to generate example `JET_SIDE_MENU_ITEMS` setting which includes all your applications and models. You can use it this way:

```
python manage.py jet_side_menu_items_example
```

JET_CHANGE_FORM_SIBLING_LINKS



Adds buttons to change forms that allows you to navigate to previous/next object without returning back to change list. Can be disabled if hit performance.

```
JET_CHANGE_FORM_SIBLING_LINKS = True
```

Default is `True`

JET_INDEX_DASHBOARD

Sets which dashboard class will be used for rendering admin index dashboard. Allows you to create your own dashboard with custom modules and pre-installed layout.

```
JET_INDEX_DASHBOARD = 'jet.dashboard.dashboard.DefaultIndexDashboard'
```

JET_APP_INDEX_DASHBOARD

Same as **JET_INDEX_DASHBOARD**, but for application pages

```
JET_APP_INDEX_DASHBOARD = 'jet.dashboard.dashboard.DefaultAppIndexDashboard'
```

2.2.2 Autocomplete

By default Django JET renders all possible choices for select inputs. This behavior may be unwanted if number of available options is rather big. In this case Django JET allows you to load these options dynamically through AJAX.

Configuration

In order to achieve this functionality all you have to do is:

- Specify which model fields should be searchable by AJAX queries. Add this static method which must return a `tuple` or `list` of fields you want to be searchable with AJAX:

```
@staticmethod
def autocomplete_search_fields():
    return 'field1', 'field2'

# for single field

@staticmethod
def autocomplete_search_fields():
    return 'field1',
```

Example from Django JET demo site:

```
class Address(models.Model):
    name = models.CharField(_('name'), max_length=255)
    city = models.ForeignKey(City, verbose_name=_('city'), related_name='addresses')
    zip = models.IntegerField(_('zip/postal code'))

    class Meta:
        verbose_name = _('address')
        verbose_name_plural = _('addresses')
        unique_together = ('name', 'city')

    def __str__(self):
        return self.name

    @staticmethod
    def autocomplete_search_fields():
        return 'name', 'city__name'
```

- Use custom AJAX filter class `jet.filters.RelatedFieldAjaxListFilter` if you have any foreign key list filters:

```
from jet.filters import RelatedFieldAjaxListFilter

class PersonAdmin(admin.ModelAdmin):
    list_filter = (
        ...
        ('address', RelatedFieldAjaxListFilter),
    )
```

- Now all your admin select boxes will perform AJAX queries to load available options while you type.

Note: This works for both ForeignKey and ManyToManyField fields.

Disabling Autocomplete For Form Fields

Autocomplete is nice, but sometimes you don't want this behaviour (e.x. because you want to limit the provided queryset for a particular widget). In this case you can disable autocompletion this way:

```
class YourForm(forms.ModelForm):
    def __init__(self, *args, **kwargs):
        super(YourForm, self).__init__(*args, **kwargs)
```

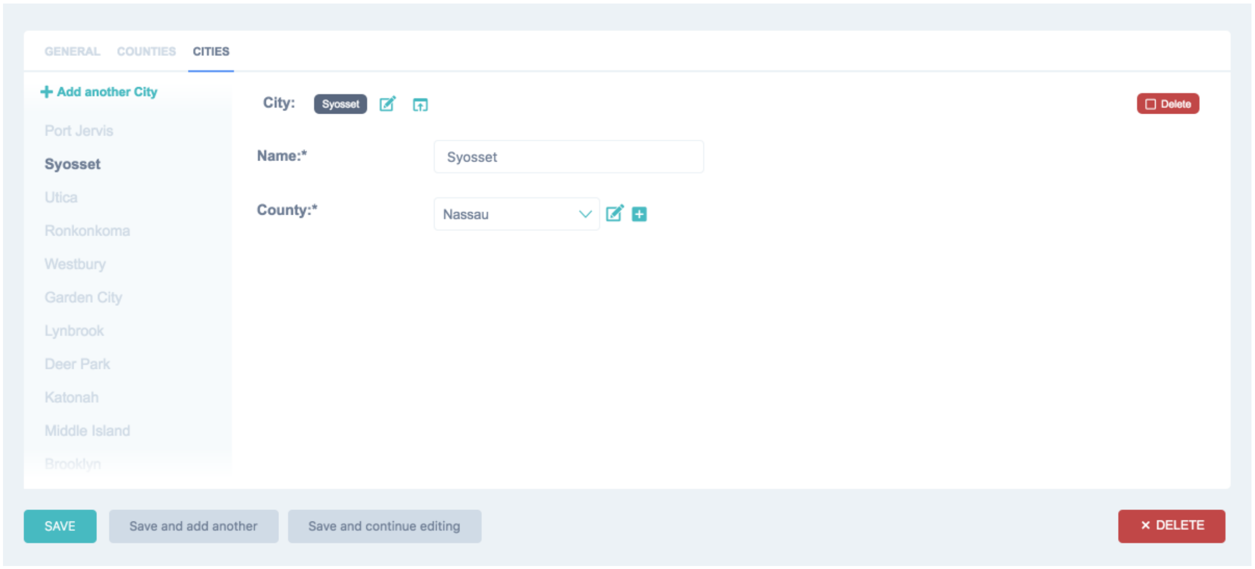
(continues on next page)

(continued from previous page)

```
        if SOME_CASE(self.instance):
            self.fields['FIELD_NAME'].autocomplete = False
            self.fields['FIELD_NAME'].queryset = Model.queryset.some_filter()
```

2.2.3 Compact Inline

By default Django admin interface provides two types of inlines to edit models on the same page as a related model – `StackedInline` and `TabularInline`. `StackedInline` is mostly used when there are not so many objects. If number of models is rather big, `TabularInline` can help you. Unfortunately when related model has a lot of fields it may be not convenient to interact with them. To solve this problem JET has a `CompactInline` class built-in.



Usage

`CompactInline` works exactly like Django built-in inlines, you need just to inherit `jet.admin.CompactInline` inline class. That's all.

```
from django.contrib import admin
from people.models import County, State, City
from jet.admin import CompactInline


class StateCountiesInline(admin.TabularInline):
    model = County
    extra = 1
    show_change_link = True


class StateCitiesInline(CompactInline):
    model = City
    extra = 1
    show_change_link = True
```

(continues on next page)

(continued from previous page)

```
class StateAdmin(admin.ModelAdmin):
    inlines = (StateCountiesInline, StateCitiesInline)
```

2.2.4 Filters

RelatedFieldAjaxListFilter

See *Autocomplete* documentation for details.

django-admin-rangefilter

In order to fix compatibility issues with `django-admin-rangefilter` package you should use JET's admin filter class `jet.filters.DateRangeFilter` instead of `rangefilter.filter.DateRangeFilter`.

```
#from rangefilter.filter import DateRangeFilter
from jet.filters import DateRangeFilter


class MyUserAdmin(UserAdmin):
    ...
    list_filter = (
        ('date_joined', DateRangeFilter),
    )
```

2.3 Dashboard

2.3.1 Custom Dashboard

Note: Django JET Dashboard tries to be as compatible as possible with django-admin-tools dashboard so that django-admin-tools modules could be easily ported to Django JET. In most cases it will be enough to change python imports and remove extending in modules templates.

Dashboard represents `Dashboard` class instances with `DashboardModule` class instances as its children. Any custom **Dashboard** class should inherit from `jet.dashboard.dashboard.Dashboard` and use `init_with_context` to fill it with widgets. You should add your widgets to the `children` and `available_children` attributes.

Before you continue, make sure you have completed the *Dashboard Installation*.

Set Up Custom Dashboard

- Create `dashboard.py` in any suitable location (e.g., in your project root) with the following content:

  ```
  from django.utils.translation import ugettext_lazy as _
  from jet.dashboard import modules
  from jet.dashboard.dashboard import Dashboard, AppIndexDashboard

  ```

(continues on next page)

(continued from previous page)

```
class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
        self.available_children.append(modules.LinkList)
        self.children.append(modules.LinkList(
            _('Support'),
            children=[
                {
                    'title': _('Django documentation'),
                    'url': 'http://docs.djangoproject.com/',
                    'external': True,
                },
                {
                    'title': _('Django "django-users" mailing list'),
                    'url': 'http://groups.google.com/group/django-users',
                    'external': True,
                },
                {
                    'title': _('Django irc channel'),
                    'url': 'irc://irc.freenode.net/django',
                    'external': True,
                },
            ],
            column=0,
            order=0
        ))
```

- Add the path to your `dashboard.py` in your `settings.py` file. For example, if your `dashboard.py` is in the project root:

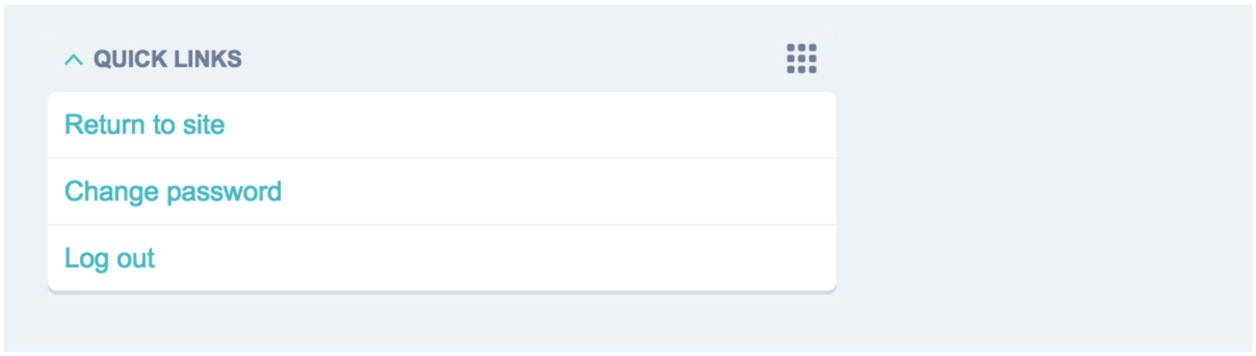
```
JET_INDEX_DASHBOARD = 'dashboard.CustomIndexDashboard'
```

That's all, now you have a dashboard with only one widget - `LinkList`. Dashboard reset may be needed if you had another dashboard already rendered for any user. Visit *Dashboard Modules* to learn about other widgets you can add to your custom dashboard or *Custom Dashboard Module* or to create your own.

2.3.2 Dashboard Modules

Build-In Dashboard Modules

LinkList



class jet.dashboard.modules.**LinkList**(*title=None*, *children=[]*, ***kwargs*)

List of links widget.

Usage example:

```
from django.utils.translation import ugettext_lazy as _
from jet.dashboard import modules
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard


class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
        self.available_children.append(modules.LinkList)
        self.children.append(modules.LinkList(
            _('Support'),
            children=[
                {
                    'title': _('Django documentation'),
                    'url': 'http://docs.djangoproject.com/',
                    'external': True,
                },
                {
                    'title': _('Django "django-users" mailing list'),
                    'url': 'http://groups.google.com/group/django-users',
                    'external': True,
                },
                {
                    'title': _('Django irc channel'),
                    'url': 'irc://irc.freenode.net/django',
                    'external': True,
                },
            ],
            column=0,
            order=0
        ))
```

child_form
alias of LinkListItemForm

children = []
Links are contained in children attribute which you can pass as constructor parameter to make your

own preinstalled link lists.

`children` is an array of dictinaries:

```
[
    {
        'title': _('Django documentation'),
        'url': 'http://docs.djangoproject.com/',
        'external': True,
    },
    ...
]
```

layout = 'stacked'
Specify widget layout. Allowed values `stacked` and `inline`.

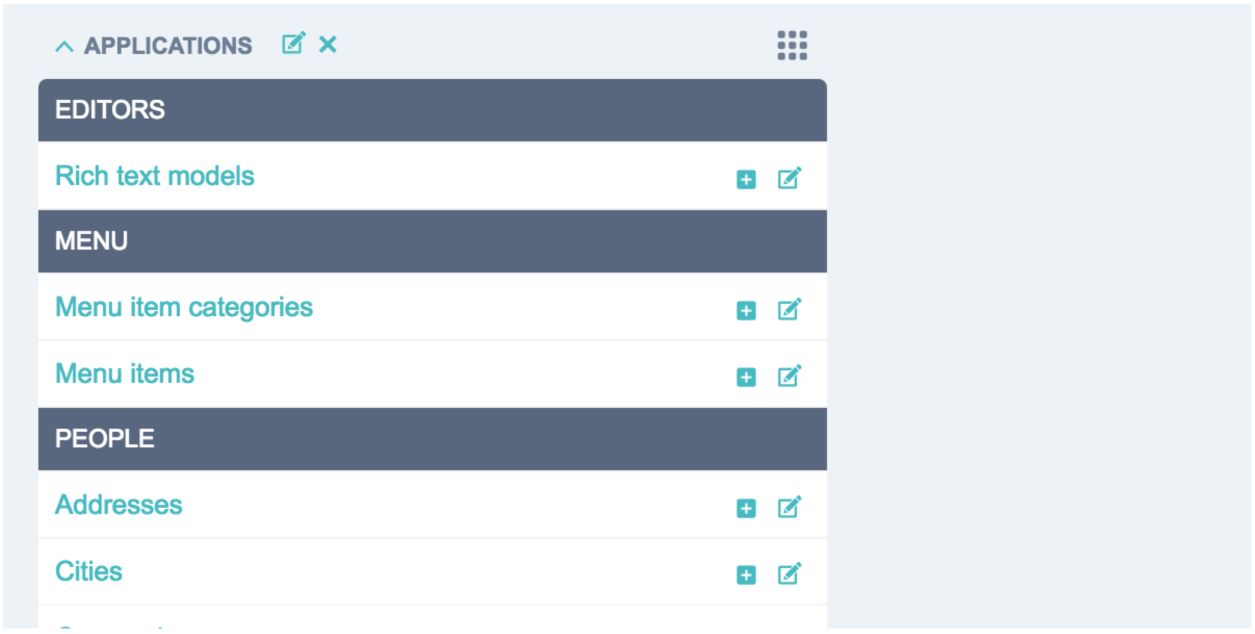
load_settings (*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

settings_dict ()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

settings_form
alias of `LinkListSettingsForm`

store_children ()
Specify if children field should be saved to database.

AppList



class jet.dashboard.modules.**AppList** (*title=None*, *model=None*, *context=None*, ***kwargs*)
Shows applications and containing models links. For each model "created" and "change" links are displayed.

Usage example:

```
from django.utils.translation import ugettext_lazy as _
from jet.dashboard import modules
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard


class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
        self.children.append(modules.AppList(
            _('Applications'),
            exclude=('auth.*',),
            column=0,
            order=0
        ))
```

exclude = None
Specify models which should NOT be displayed. `exclude` is an array of string formatted as `app_label.model`. Also its possible to specify all application models with * sign (e.g. `auth.*`).

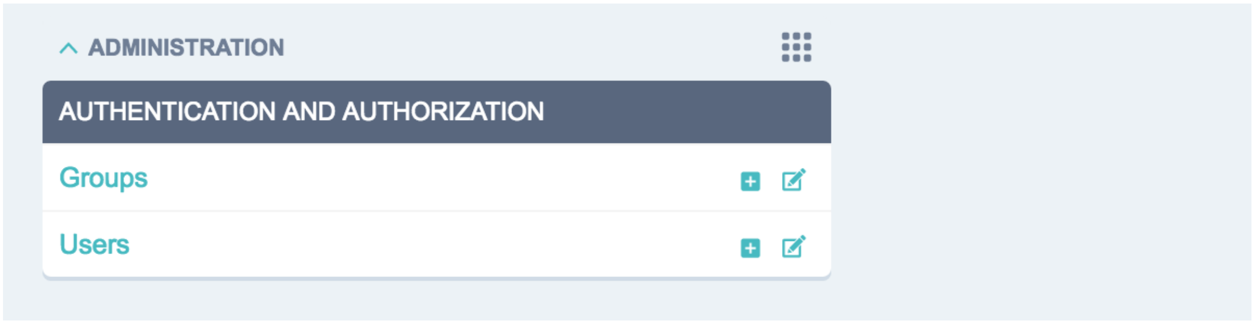
init_with_context (*context*)
Allows you to load data and initialize module's state.

load_settings (*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

models = None
Specify models which should be displayed. `models` is an array of string formatted as `app_label.model`. Also its possible to specify all application models with * sign (e.g. `auth.*`).

settings_dict ()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

ModelList



class jet.dashboard.modules.**ModelList** (*title=None*, *model=None*, *context=None*, ***kwargs*)
Shows models links. For each model "created" and "change" links are displayed.

Usage example:

```
from django.utils.translation import ugettext_lazy as _
from jet.dashboard import modules
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard
```

(continues on next page)

(continued from previous page)

```
class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
        self.children.append(modules.ModelList(
            _('Models'),
            exclude=('auth.*',),
            column=0,
            order=0
        ))
```

`exclude = None`
Specify models which should NOT be displayed. `exclude` is an array of string formatted as `app_label.model`. Also its possible to specify all application models with * sign (e.g. `auth.*`).

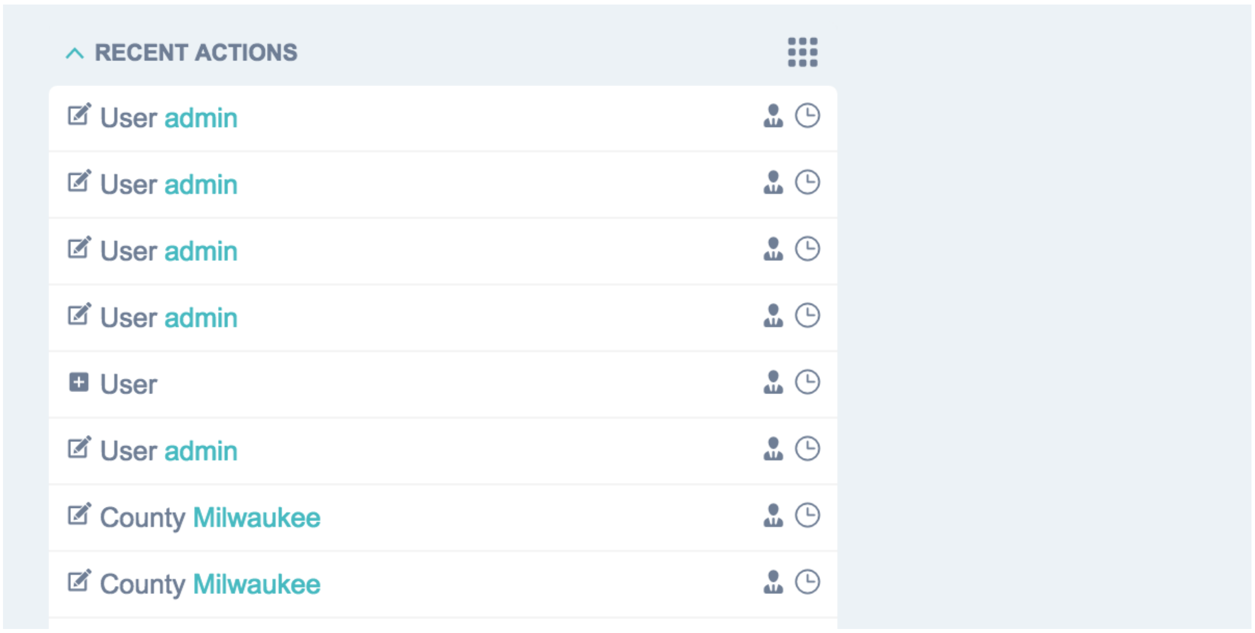
`init_with_context`(*context*)
Allows you to load data and initialize module's state.

`load_settings`(*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

`models = None`
Specify models which should be displayed. `models` is an array of string formatted as `app_label.model`. Also its possible to specify all application models with * sign (e.g. `auth.*`).

`settings_dict`()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

RecentActions



User admin
User admin
User admin
User admin
User
User admin
County Milwaukee
County Milwaukee

class jet.dashboard.modules.**RecentActions**(*title=None*, *limit=10*, ***kwargs*)

Display list of most recent admin actions with following information: entity name, type of action, author, date

Usage example:

```
from django.utils.translation import ugettext_lazy as _
from jet.dashboard import modules
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard


class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
        self.children.append(modules.RecentActions(
            _('Recent Actions'),
            10,
            column=0,
            order=0
        ))
```

exclude_list = None

Specify actions of which models should NOT be displayed. `exclude_list` is an array of string formatted as `app_label.model`. Also its possible to specify all application models with * sign (e.g. `auth.*`).

include_list = None

Specify actions of which models should be displayed. `include_list` is an array of string formatted as `app_label.model`. Also its possible to specify all application models with * sign (e.g. `auth.*`).

init_with_context(*context*)

Allows you to load data and initialize module's state.

limit = 10

Number if entries to be shown (may be changed by each user personally).

load_settings(*settings*)

Should be implemented to restore saved in database settings. Required if you have custom settings.

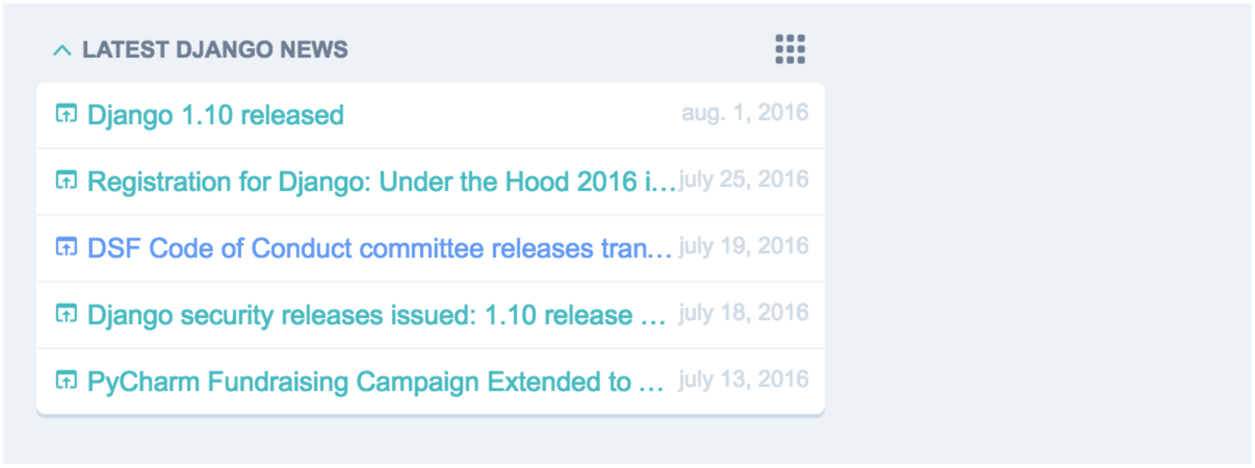
settings_dict()

Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

settings_form

alias of `RecentActionsSettingsForm`

Feed


LATEST DJANGO NEWS

Django 1.10 released	aug. 1, 2016
Registration for Django: Under the Hood 2016 i…	july 25, 2016
DSF Code of Conduct committee releases tran…	july 19, 2016
Django security releases issued: 1.10 release …	july 18, 2016
PyCharm Fundraising Campaign Extended to …	july 13, 2016

class `jet.dashboard.modules.`**`Feed`**(*title=None*, *feed_url=None*, *limit=None*, ***kwargs*)

Display RSS Feed entries with following information: entry title, date and link to the full version

Usage example:

```
from django.utils.translation import ugettext_lazy as _
from jet.dashboard import modules
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard


class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
        self.children.append(modules.Feed(
            _('Latest Django News'),
            feed_url='http://www.djangoproject.com/rss/weblog/',
            limit=5,
            column=0,
            order=0
        ))
```

`feed_url = None`

URL of the RSS feed (may be changed by each user personally).

`init_with_context`(*context*)

Allows you to load data and initialize module's state.

`limit = None`

Number if entries to be shown (may be changed by each user personally).

`load_settings`(*settings*)

Should be implemented to restore saved in database settings. Required if you have custom settings.

`settings_dict`()

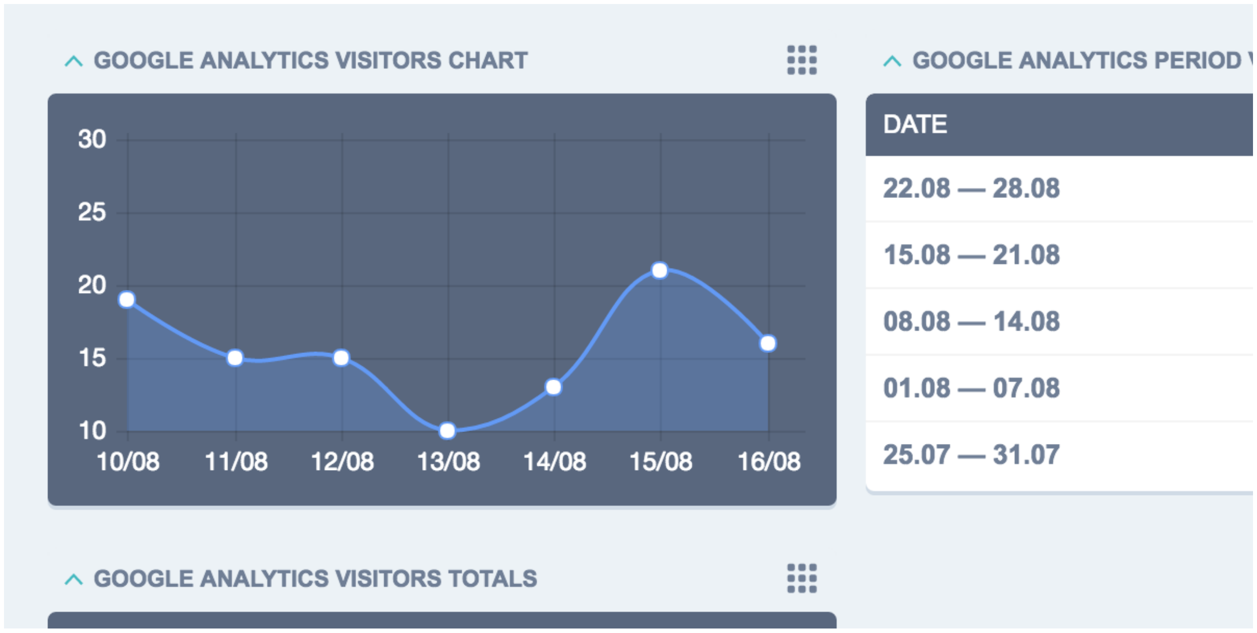
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

`settings_form`

alias of `FeedSettingsForm`

Google Analytics Widgets

Attention: Google Analytics widgets required extra setup



Extra Installation

- Install python package:

```
pip install google-api-python-client==1.4.1
```

- Specify path to your Google Analytics `client_secrets.json` (obtained at Google website):

```
JET_MODULE_GOOGLE_ANALYTICS_CLIENT_SECRETS_FILE = os.path.join(PROJECT_DIR, 'client_
↪secrets.json')
```

- Add import to the top of your urls.py:

```
from jet.dashboard.dashboard_modules import google_analytics_views
```

Usage Example

```
from django.utils.translation import ugettext_lazy as _
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard
from jet.dashboard.dashboard_modules import google_analytics


class CustomIndexDashboard(Dashboard):
    columns = 3
```

(continues on next page)

(continued from previous page)

```
    def init_with_context(self, context):
        self.available_children.append(google_analytics.
↪GoogleAnalyticsVisitorsTotals)
        self.available_children.append(google_analytics.
↪GoogleAnalyticsVisitorsChart)
        self.available_children.append(google_analytics.
↪GoogleAnalyticsPeriodVisitors)
```

class `jet.dashboard.dashboard_modules.google_analytics.`**`GoogleAnalyticsVisitorsTotals`**(*title=No pe- riod=No **kwarg*

Google Analytics widget that shows total number of users, sessions and viewers for a particular period of time. Period may be following: Today, Last week, Last month, Last quarter, Last year

`init_with_context`(*context*)
Allows you to load data and initialize module's state.

`period = None`
Which period should be displayed. Allowed values - integer of days

class `jet.dashboard.dashboard_modules.google_analytics.`**`GoogleAnalyticsVisitorsChart`**(*title=Non pe- riod=Non show=No group=No **kwargs*

Google Analytics widget that shows users/sessions/viewer chart for a particular period of time. Data is grouped by day, week or month Period may be following: Today, Last week, Last month, Last quarter, Last year

`group = None`
Sets grouping of data. Possible values: `day`, `week`, `month`

`init_with_context`(*context*)
Allows you to load data and initialize module's state.

`load_settings`(*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

`period = None`
Which period should be displayed. Allowed values - integer of days

`settings_dict`()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

`settings_form`
alias of `GoogleAnalyticsChartSettingsForm`

`show = None`
What data should be shown. Possible values: `ga:users`, `ga:sessions`, `ga:pageviews`

class `jet.dashboard.dashboard_modules.google_analytics.`**`GoogleAnalyticsPeriodVisitors`**(*title=No pe- riod=No group=I **kwarg*

Google Analytics widget that shows users, sessions and viewers for a particular period of time. Data is grouped by day, week or month Period may be following: Today, Last week, Last month, Last quarter, Last year

group = None
Sets grouping of data. Possible values: `day`, `week`, `month`

init_with_context (*context*)
Allows you to load data and initialize module's state.

load_settings (*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

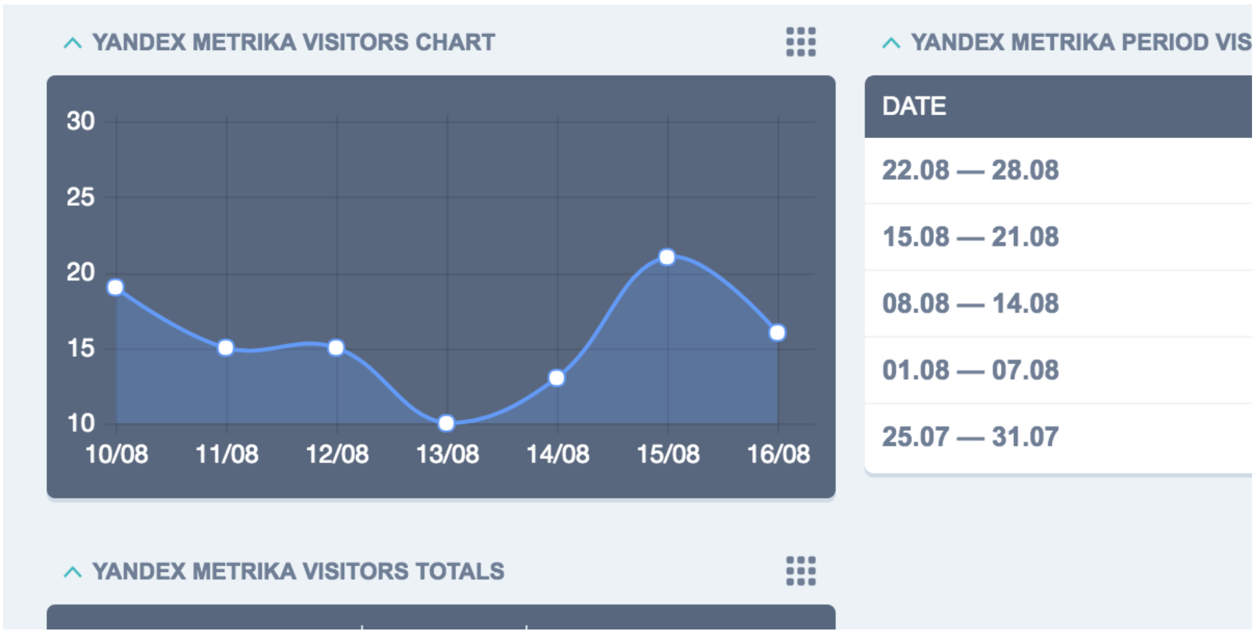
period = None
Which period should be displayed. Allowed values - integer of days

settings_dict ()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

settings_form
alias of `GoogleAnalyticsPeriodVisitorsSettingsForm`

Yandex Metrika Widgets

Attention: Yandex Metrika widgets required extra setup



Extra Installation

- Set your Yandex Metrika CLIENT_ID and CLIENT_SECRET (obtained at Yandex Metrika API website):

```
JET_MODULE_YANDEX_METRIKA_CLIENT_ID = 'YANDEX_METRIKA_CLIENT_ID'
JET_MODULE_YANDEX_METRIKA_CLIENT_SECRET = 'YANDEX_METRIKA_CLIENT_SECRET'
```

- Add import to the top of your urls.py:

```
from jet.dashboard.dashboard_modules import yandex_metrika_views
```

Usage Example

```
from django.utils.translation import ugettext_lazy as _
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard
from jet.dashboard.dashboard_modules import yandex_metrika


class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
       self.available_children.append(yandex_metrika.
↪YandexMetrikaVisitorsTotals)
       self.available_children.append(yandex_metrika.
↪YandexMetrikaVisitorsChart)
       self.available_children.append(yandex_metrika.
↪YandexMetrikaPeriodVisitors)
```

class `jet.dashboard.dashboard_modules.yandex_metrika.`**`YandexMetrikaVisitorsTotals`**(*title=None, period=None, **kwargs*)

Yandex Metrika widget that shows total number of visitors, visits and viewers for a particular period of time. Period may be following: Today, Last week, Last month, Last quarter, Last year

`init_with_context`(*context*)
Allows you to load data and initialize module's state.

`period = None`
Which period should be displayed. Allowed values - integer of days

class `jet.dashboard.dashboard_modules.yandex_metrika.`**`YandexMetrikaVisitorsChart`**(*title=None, period=None, show=None, group=None, **kwargs*)

Yandex Metrika widget that shows visitors/visits/viewer chart for a particular period of time. Data is grouped by day, week or month Period may be following: Today, Last week, Last month, Last quarter, Last year

`group = None`
Sets grouping of data. Possible values: `day`, `week`, `month`

`init_with_context`(*context*)
Allows you to load data and initialize module's state.

`load_settings`(*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

`period = None`
Which period should be displayed. Allowed values - integer of days

`settings_dict`()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

settings_form
alias of `YandexMetrikaChartSettingsForm`

show = None
What data should be shown. Possible values: `visitors`, `visits`, `page_views`

class `jet.dashboard.dashboard_modules.yandex_metrika.`**YandexMetrikaPeriodVisitors**(*title=None*, *period=None*, *group=None*, ***kwargs*)

Yandex Metrika widget that shows visitors, visits and viewers for a particular period of time. Data is grouped by day, week or month Period may be following: Today, Last week, Last month, Last quarter, Last year

group = None
Sets grouping of data. Possible values: `day`, `week`, `month`

init_with_context(*context*)
Allows you to load data and initialize module's state.

load_settings(*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

period = None
Which period should be displayed. Allowed values - integer of days

settings_dict()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

settings_form
alias of `YandexMetrikaPeriodVisitorsSettingsForm`

2.3.3 Custom Dashboard Module

In order create your own dashboard module you need to follow these steps:

- Inherit *Dashboard Module*
- Create module template
- *(optional) Add module views*

Also you can always see build-in modules as examples in `jet/dashboard/modules.py` file and `jet/dashboard/dashboard_modules/` directory on the repository.

Inherit Dashboard Module

- Create dashboard modules file `dashboard_modules.py` (or any other you prefer) inside your Django application
- Create dashboard module class inherited from base *dashboard module* class and add it to `dashboard_modules.py` file. You can see list of all available module attributes *here*. `init_with_context` method allows you to load data and initialize module's state. You can store data in module's fields as this instance will be passed to template.

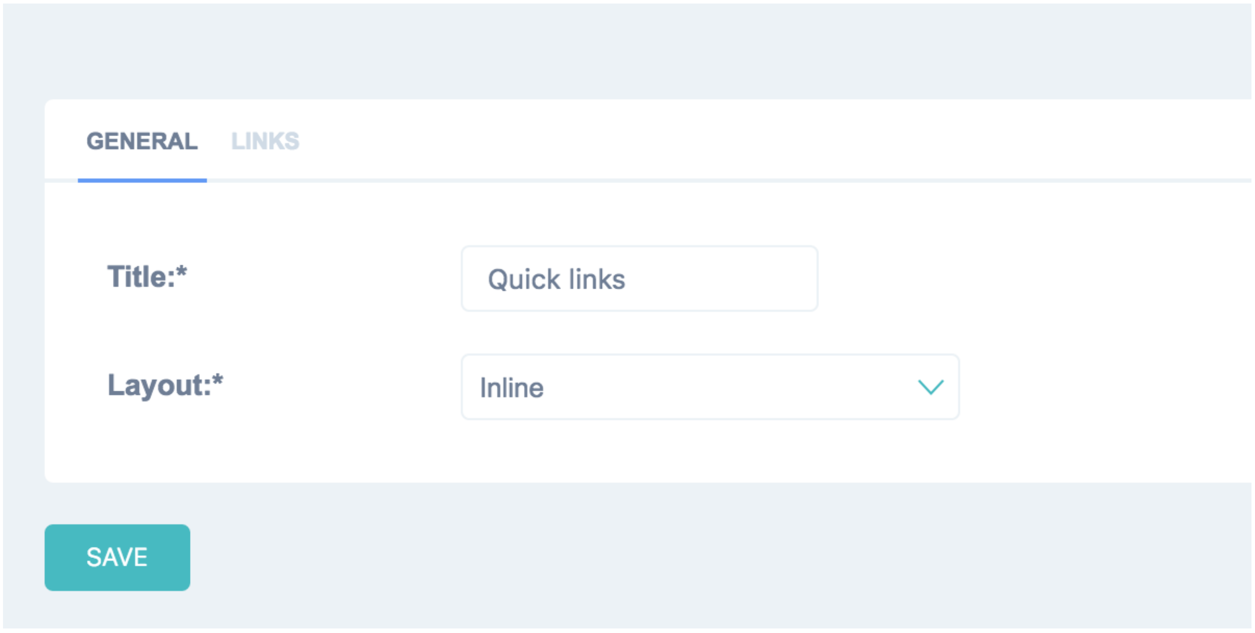
Example of `dashboard_modules.py`:

```python
from jet.dashboard.modules import DashboardModule
from contact.models import Ticket


class RecentTickets(DashboardModule):
    title = 'Recent tickets'
    title_url = Ticket.get_admin_changelist_url()
    template = 'contact/dashboard_modules/recent_tickets.html'
    limit = 10

    def init_with_context(self, context):
        self.children = Ticket.objects.order_by('-date_add')[:self.limit]
```

- Optionally you can add customizable module settings and content which will be seen in administration interface. For customizable settings `settings_form` should be set, also `settings_dict` and `load_settings` methods should be implemented. For customizable content items `child_form`, `child_name` and `child_name_plural` should be set, also `store_children` should return `True`. You can validate loaded from database children in `__init__` method.



Title:* Quick links

Layout:* Inline

Example of `LinkList` dashboard module which has custom settings and editable list of links:

```python
class LinkList(DashboardModule):
    title = 'Links'
    template = 'jet.dashboard/modules/link_list.html'
    layout = 'stacked'
    children = []
    settings_form = LinkListSettingsForm
    child_form = LinkListItemForm
    child_name = 'Link'
    child_name_plural = 'Links'

    def __init__(self, title=None, children=list(), **kwargs):
        children = list(map(self.parse_link, children))
        kwargs.update({'children': children})
        super(LinkList, self).__init__(title, **kwargs)
```

(continues on next page)

(continued from previous page)

```
    def settings_dict(self):
        return {
            'layout': self.layout
        }

    def load_settings(self, settings):
        self.layout = settings.get('layout', self.layout)

    def store_children(self):
        return True

    def parse_link(self, link):
        if isinstance(link, (tuple, list)):
            link_dict = {'title': link[0], 'url': link[1]}
            if len(link) >= 3:
                link_dict['external'] = link[2]
            return link_dict
        elif isinstance(link, (dict,)):
            return link


class LinkListSettingsForm(forms.Form):
    layout = forms.ChoiceField(label='Layout', choices=(('stacked', 'Stacked
↪'), ('inline', 'Inline')))


class LinkListItemForm(forms.Form):
    url = forms.CharField(label='URL')
    title = forms.CharField(label='Title')
    external = forms.BooleanField(label='External link', required=False)
```

Create Module Template

Create template at path specified in module class. Module instance is passed to template as `module` variable so you can get data directly from it.

```
{% load humanize %}

<ul>
    {% for ticket in module.children %}
        <li>
            <span class="float-right">
                <span class="dim">
                    {{ ticket.date_add|naturalday }} <span class="icon-clock␣
↪tooltip" title="{{ ticket.date_add }}"></span>
                </span>
            </span>

            {% if ticket.forwarded %}
                <span class="icon-tick" style="color: #8ecb8e;"></span>
            {% else %}
                <span class="icon-cross" style="color: #dba4a4;"></span>
            {% endif %}
```

(continues on next page)

(continued from previous page)

```
            <a href="{{ ticket.get_admin_url }}">{{ ticket.name }}</a>
        </li>
    {% empty %}
        <li>
            Nothing to show
        </li>
    {% endfor %}
</ul>
```

Add Module Views (Optional)

If your dashboard module needs to have own views you can register them the following way and store for example in `dashboard_modules_views.py` file inside your application:

```
from django.urls import path
from django.contrib import messages
from django.shortcuts import redirect
from jet.dashboard import dashboard
from core.utils.utils import DatabaseManager


def update_database(request):
    database_manager = DatabaseManager()
    database_manager.update_database()

    messages.success(request, 'Database was successfully updated')

    return redirect(request.META.get('HTTP_REFERER'))

# This method registers view's url
dashboard.urls.register_urls([
    path(
        'update_database/',
        update_database,
        name='update-database'
    ),
])
```

You should import this file before dashboard urls have been imported in you main `urls.py` file.

```
from django.conf import settings
from django.urls import include, path
from django.contrib import admin

# Import dashboard module views
from core import dashboard_modules_views

urlpatterns = [
    path('admin/', include(admin.site.urls)),
    path('jet/', include('jet.urls', 'jet')),
    path('jet/dashboard/', include('jet.dashboard.urls', 'jet-dashboard')),
    ...
]
```

After that you can reverse url to module's view this way:

```
{% url "jet-dashboard:update-database" %}
```

2.4 Dashboard API

This page describes the API of the dashboard and dashboard modules.

2.4.1 Dashboard

class `jet.dashboard.dashboard.`**`Dashboard`**`(`*context*, ***kwargs*`)`
Base dashboard class. All custom dashboards should inherit it.

`available_children = None`
List of dashboard module **classes**

`children = None`
Dashboard Modules (widgets) that dashboard is filled with, when the user open it for the first time

List of dashboard module **instances**

`columns = 2`
Number of columns in which widgets can be placed

`init_with_context``(`*context*`)`
Override this method to fill your custom **Dashboard** class with widgets. You should add your widgets to `children` and `available_children` attributes.

Usage example:

```python
from django.utils.translation import ugettext_lazy as _
from jet.dashboard import modules
from jet.dashboard.dashboard import Dashboard, AppIndexDashboard


class CustomIndexDashboard(Dashboard):
    columns = 3

    def init_with_context(self, context):
        self.available_children.append(modules.LinkList)
        self.children.append(modules.LinkList(
            _('Support'),
            children=[
                {
                    'title': _('Django documentation'),
                    'url': 'http://docs.djangoproject.com/',
                    'external': True,
                },
                {
                    'title': _('Django "django-users" mailing list'),
                    'url': 'http://groups.google.com/group/django-users',
                    'external': True,
                },
                {
                    'title': _('Django irc channel'),
                    'url': 'irc://irc.freenode.net/django',
                    'external': True,
```

(continues on next page)

(continued from previous page)

```
                },
            ],
            column=0,
            order=0
        ))
```

2.4.2 DashboardModule

class jet.dashboard.modules.**DashboardModule**(*title=None*, *model=None*, *context=None*, ***kwargs*)

Base dashboard module class. All dashboard modules (widgets) should inherit it.

ajax_load = False
A boolean field which specify if widget should be rendered on dashboard page load or fetched later via AJAX.

child_form = None
A `django.forms.Form` class which may contain custom widget child settings, if it has any. Not required.

child_name = None
Child name that will be displayed when editing module contents. Required if `child_form` set.

child_name_plural = None
Same as child name, but plural.

collapsible = True
Specify if module can be collapsed.

contrast = False
A boolean field which makes widget ui color contrast.

deletable = True
Specify if module can be deleted.

draggable = True
Specify if module can be draggable or has static position.

init_with_context(*context*)
Allows you to load data and initialize module's state.

load_settings(*settings*)
Should be implemented to restore saved in database settings. Required if you have custom settings.

post_content = None
HTML content that will be displayed after widget content.

pre_content = None
HTML content that will be displayed before widget content.

settings_dict()
Should be implemented to save settings to database. This method should return `dict` which will be serialized using `json`. Required if you have custom settings.

settings_form = None
A `django.forms.Form` class which may contain custom widget settings. Not required.

store_children()
Specify if children field should be saved to database.

style = False
Optional style attributes which will be applied to widget content container.

template = 'jet.dashboard/module.html'
Path to widget's template. There is no need to extend such templates from any base templates.

title = ''
Default widget title that will be displayed for widget in the dashboard. User can change it later for every widget.

title_url = None
Specify title url. `None` if title shouldn't be clickable.

2.5 Contributing

Django JET2 is open-source and every member of the community can contribute to it. We are happy to see patches and improvements with Django JET. But please keep in mind that there are some guidelines you should follow.

2.5.1 Requirements

- Git master branch should always be stable
- All pull requests are made to git dev branch
- Non AGPL compatible code is not eligible for inclusion

2.5.2 Guidelines For Reporting An Issue/Feature

So you've found a bug or have a great idea for a feature. Here's the steps you should take to help get it added/fixed in Django JET:

- First check if there's an existing issue/pull request for this bug/feature. Issues can be found here https://github.com/tikservices/django-jet2/issues, PRs here https://github.com/tikservices/django-jet2/pulls
- If there isn't one there, please add an issue. The ideal report includes:
  - A description of the problem/suggestion
  - How to reproduce the bug
  - If relevant including the versions of your:
    - Python interpreter
    - Django
    - Django JET
    - Optionally of the other dependencies involved
  - It would be great if you also make a pull request which solves your issue

2.5.3 Guidelines For Contributing Code

If you're ready to contribute back some code/docs, the process should look like:

- Fork the project on GitHub into your own account

- Clone your copy of Django JET to a separate folder
- Install it into your demo project using `pip install -e PATH_TO_CLONED_JET`
- Make a new branch in git & commit your changes there
- Push your new branch up to GitHub
- Again, ensure there isn't already an issue or pull request out there on it. If there is and you feel you have a better fix, please take note of the issue number and mention it in your pull request
- Create a new pull request (based on your branch), including what the problem/feature is, versions of your software and referencing any related issues/pull requests

In order to be merged into Django JET, contributions must have the following:

- A solid patch that:
  - is clear
  - works across all supported versions of Python/Django
  - follows the existing style of the code base (mostly PEP-8)
- Desirably a test case that demonstrates the previous flaw that now passes with the included patch
- If it adds/changes a public API, it must also include documentation for those changes
- Must be appropriately licensed (see *requirements*)

If your contribution lacks any of these things, they will have to be added by a core contributor before being merged into Django JET proper, which may take time to get to.

2.5.4 Contribution Translations

If you want to add new translations locale, please do not use automatic Django locale generation, because it will produce files with missing JS strings and duplicates. Instead copy the following well formatted "en" files to your new locale folder:

- jet/locale/LOCALE/LC_MESSAGES/django.mo
- jet/locale/LOCALE/LC_MESSAGES/djangojs.mo
- jet/dashboard/locale/LOCALE/LC_MESSAGES/django.mo
- jet/dashboard/locale/LOCALE/LC_MESSAGES/djangojs.mo

2.5.5 Contribution Styles/Javascript/Translations

Javascript/CSS/Translations need to be built each time after updating. For this you need Node and Gulp. It's out of the scope of this tutorial to go into details, but you should find lots of useful references on how to install it.

Node is needed for Gulp, so install it using your system package manager:

```
apt-get install -nodejs
# or
yum install nodejs
# or
brew install node
# ...
```

Now you are able to install Gulp globally:

```
npm install --global gulp-cli
```

Change your working directory to Django JET where `package.json` and `gulpfile.js` are located and install Gulp dependencies:

```
npm install
```

Now you are ready for contribution. Run Gulp from JET's directory to build all styles/scripts/locales and start watching for changes (gulp will rebuild files as soon they change):

```
gulp
```

Or if you want just to perform a single build without watching for changes run:

```
gulp build
```

Building produces the following files:

- CSS files for each theme:
  - jet/static/jet/css/themes/THEME_NAME/base.css
  - jet/static/jet/css/themes/THEME_NAME/jquery-ui.theme.css
  - jet/static/jet/css/themes/THEME_NAME/select2.theme.css
- CSS for other JS libraries used in JET – jet/static/jet/css/vendor.css
- Combined JS scripts of JET – jet/static/jet/js/build/bundle.min.js
- Localization files for JS libraries:
  - jet/static/jet/js/i18n/jquery-ui/
  - jet/static/jet/js/i18n/jquery-ui-timepicker/
  - jet/static/jet/js/i18n/select2/
- Compiled Django localizations:
  - jet/locale/LOCALE/LC_MESSAGES/django.mo
  - jet/locale/LOCALE/LC_MESSAGES/djangojs.mo
  - jet/dashboard/locale/LOCALE/LC_MESSAGES/django.mo
  - jet/dashboard/locale/LOCALE/LC_MESSAGES/djangojs.mo

You should commit generated build files together with sources.

2.5.6 Contribution Documentation

If you update documentation files, you can build the html files (this is not needed with a pull-request, but you might wanna check how documentation will look like locally). To do so change your working directory to `docs/` inside JET and run:

```
make html
```

`docs/_build/html/` folder will contain all html files including starting `index.html`.

CHAPTER 3

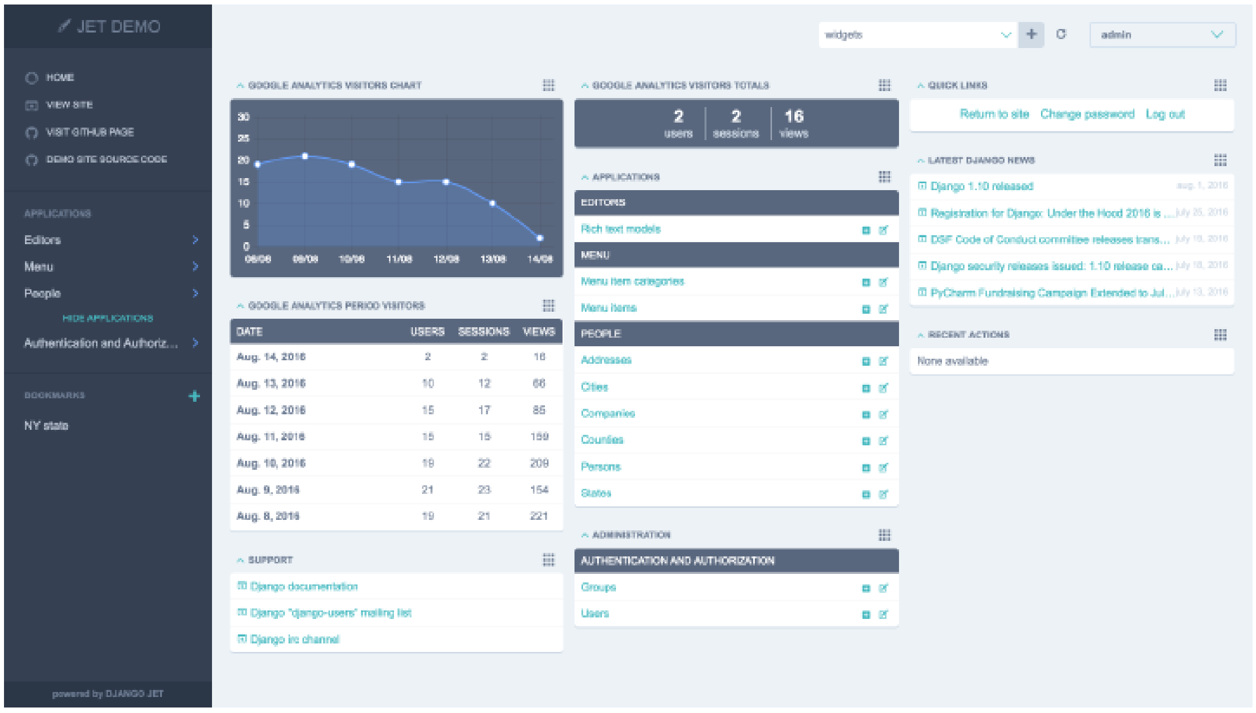
Resources

- Home page: https://github.com/tikservices/django-jet2
- Documentation: http://django-jet2.rtfd.io/
- PyPI: https://pypi.python.org/pypi/django-jet2
- Support: support@tik.tn

CHAPTER 4

Screenshots

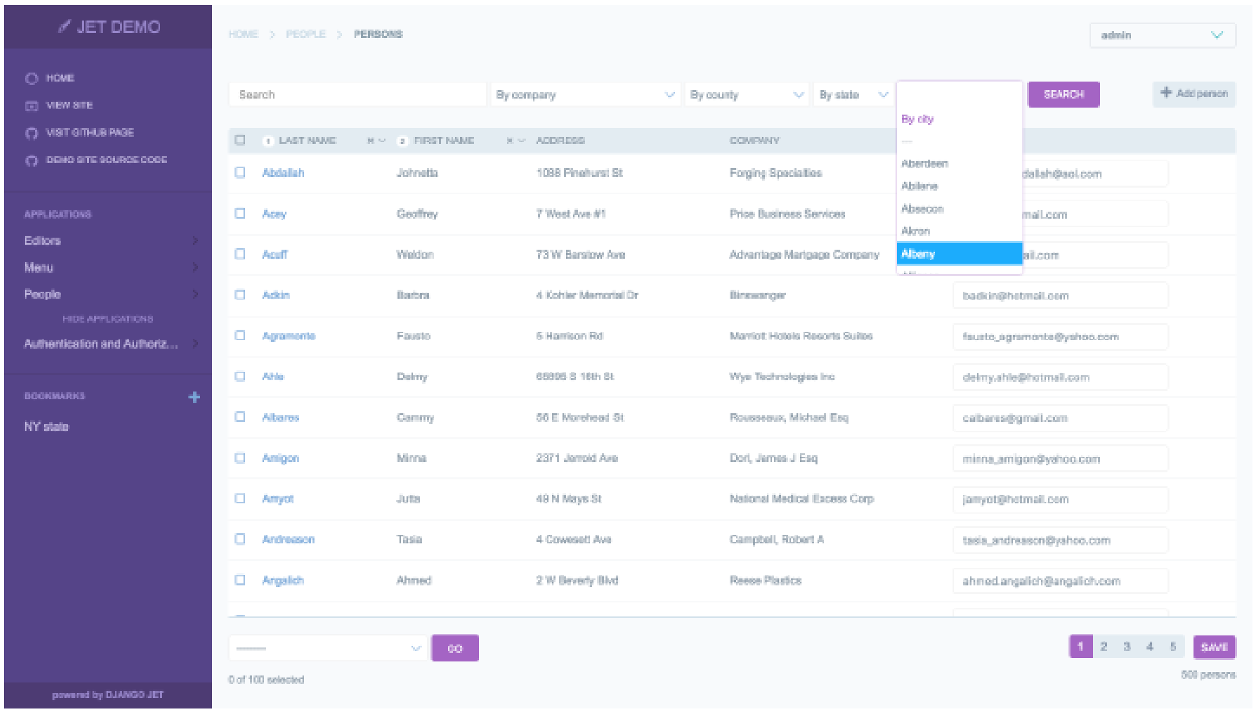
Index dashboard



DATE	USERS	SESSIONS	VIEWS
Aug. 14, 2016	2	2	16
Aug. 13, 2016	10	12	66
Aug. 12, 2016	15	17	85
Aug. 11, 2016	15	15	159
Aug. 10, 2016	19	22	209
Aug. 9, 2016	21	23	154
Aug. 8, 2016	19	21	221

Django 1.10 released aug. 1, 2016
Registration for Django: Under the Hood 2016 is ... july 25, 2016
DSF Code of Conduct committee releases trans... july 19, 2016
Django security releases issued: 1.10 release ca... july 18, 2016
PyCharm Fundraising Campaign Extended to Jul... july 13, 2016

Changelist



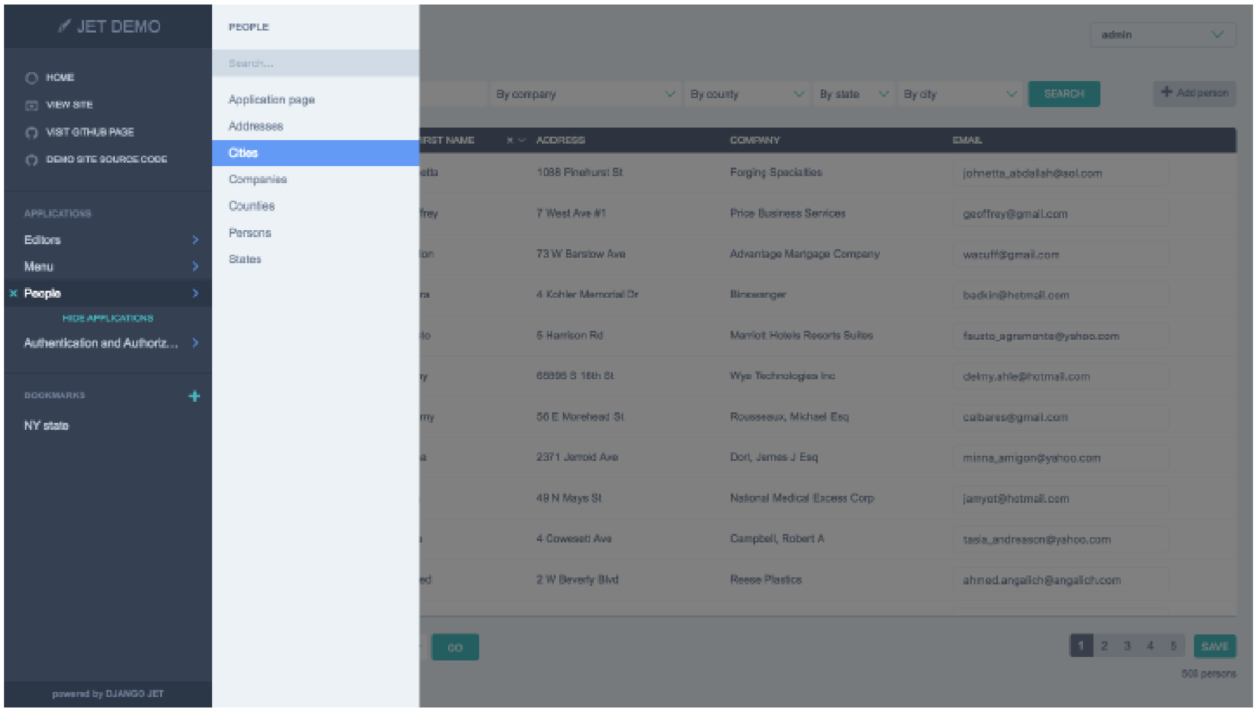
	LAST NAME	FIRST NAME	ADDRESS	COMPANY	
☐	Abdallah	Johnetta	1088 Pinehurst St	Forging Specialties	dallah@aol.com
☐	Acey	Geoffrey	7 West Ave #1	Price Business Services	mail.com
☐	Acuff	Weldon	73 W Barstow Ave	Advantage Martgage Company	ail.com
☐	Adkin	Barbra	4 Kohler Memorial Dr	Binswanger	badkin@hotmail.com
☐	Agramonte	Fausto	5 Harrison Rd	Marriott Hotels Resorts Suites	fausto_agramonte@yahoo.com
☐	Ahle	Delmy	65895 S 16th St	Wye Technologies Inc	delmy.ahle@hotmail.com
☐	Albares	Cammy	56 E Morehead St	Rousseaux, Michael Esq	calbares@gmail.com
☐	Amigon	Minna	2371 Jerrold Ave	Dorl, James J Esq	minna_amigon@yahoo.com
☐	Amyot	Jutta	49 N Mays St	National Medical Excess Corp	jamyot@hotmail.com
☐	Andreason	Tasia	4 Cowesett Ave	Campbell, Robert A	tasia_andreason@yahoo.com
☐	Angalich	Ahmed	2 W Beverly Blvd	Reese Plastics	ahmed.angalich@angalich.com

0 of 100 selected

1 2 3 4 5

500 persons

Sidemenu



IRST NAME	ADDRESS	COMPANY	EMAIL
etta	1088 Pinehurst St	Forging Specialties	johnetta_abdallah@aol.com
frey	7 West Ave #1	Price Business Services	geoffrey@gmail.com
lon	73 W Barstow Ave	Advantage Martgage Company	wacuff@gmail.com
ra	4 Kohler Memorial Dr	Binswanger	badkin@hotmail.com
to	5 Harrison Rd	Marriott Hotels Resorts Suites	fausto_agramonte@yahoo.com
y	65895 S 16th St	Wye Technologies Inc	delmy.ahle@hotmail.com
my	56 E Morehead St	Rousseaux, Michael Esq	calbares@gmail.com
a	2371 Jerrold Ave	Dorl, James J Esq	minna_amigon@yahoo.com
	49 N Mays St	National Medical Excess Corp	jamyot@hotmail.com
a	4 Cowesett Ave	Campbell, Robert A	tasia_andreason@yahoo.com
ed	2 W Beverly Blvd	Reese Plastics	ahmed.angalich@angalich.com

1 2 3 4 5

500 persons

CHAPTER 5

License

Django JET (which Django JET2 is based on) has two kinds of licenses: open-source (AGPLv3) and commercial. Please note that using AGPLv3 code in your programs make them AGPL compatible too. So if you don't want to comply with that we can provide you a commercial license (visit Home page). The commercial license is designed for using Django JET in commercial products and applications without the provisions of the AGPLv3.

Index