Article
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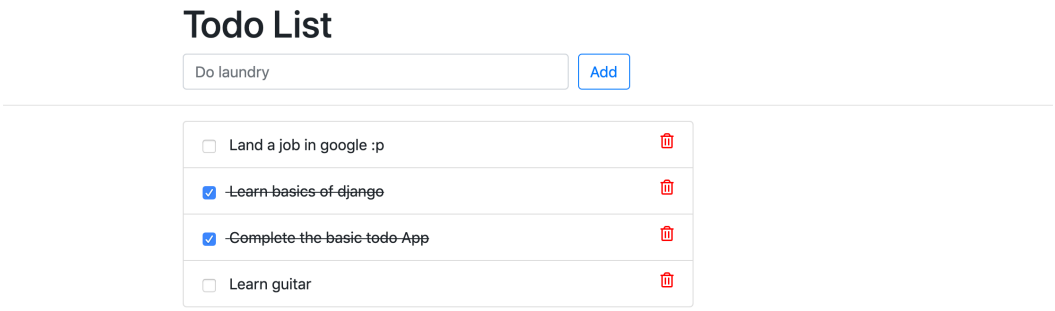
Open Exchange

Welcome Django

With the latest improvements in support for Python in IRIS, and continued work on Python DB-API support by InterSystems. I've implemented IRIS support to the Django project where is Python DB-API is used to work with some other databases.

Let's try a simple application on Django, which stores its data in IRIS.



That application is available on GitHub, let's clone it

```
git clone https://github.com/caretdev/django-iris-todo
cd django-iris-todo
```

And we can build and start it with Docker-compose

```
docker-compose up -d --build
```

It will take some some, when IRIS will be started, and Django application will catch it migrate the models there and starts application too, once it's started it will be available by http://localhost:8000/ and you should the the picture like above.

But how it works

To make it work It requires, InterSystems Python DB-API installed, it comes with the latest preview version, so, you

will need to have version 2022.1.0.114.0 or above and it's located in instance's folder <INSTALLDIR>/dev/python/. This file can also be downloaded from this GitHub repo

```
pip3 install intersystems_irispython-3.2.0-py3-none-any.whl
```

Django's IRIS backend is implemented by another project, and which can be installed with pip, and for sure we need django itself, let's install them

```
pip3 install django django-iris
```

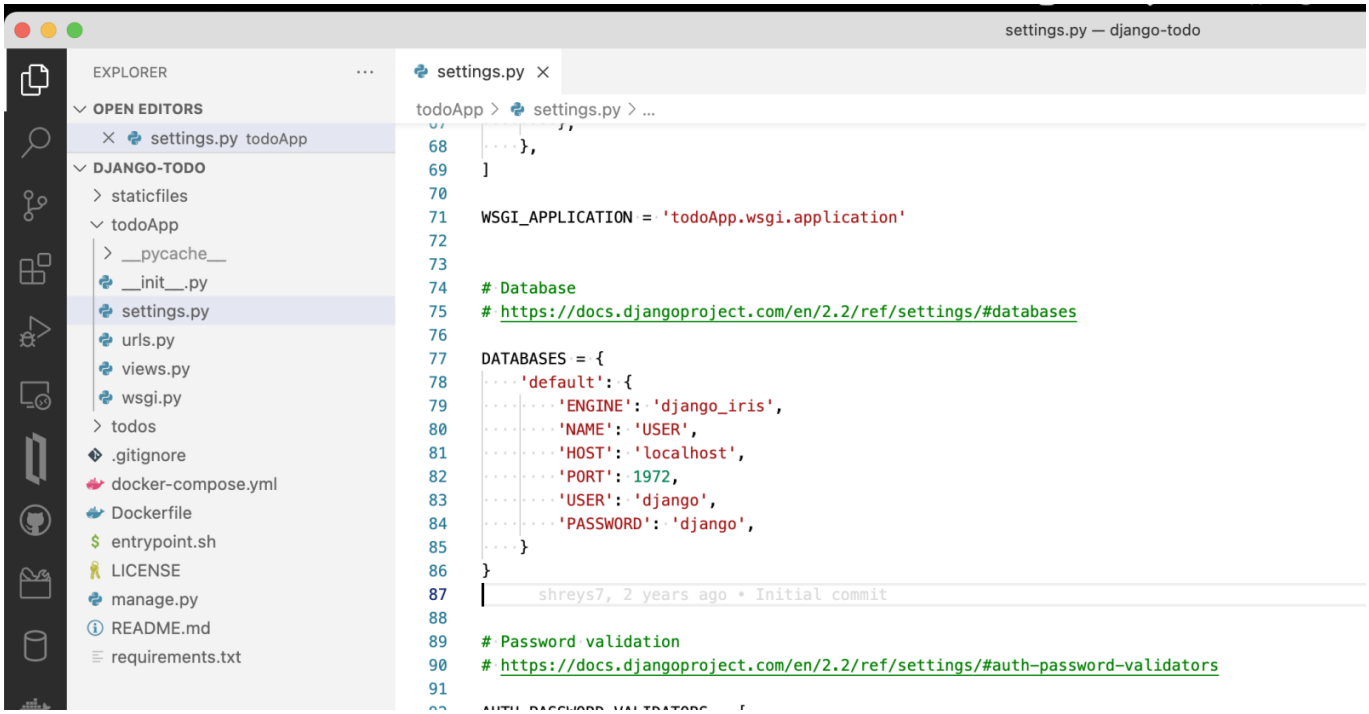
Another way to install required packages in Python is to use requirements.txt file

```
pip3 install -r requirements.txt
```

While that file contains, this lines

```
https://raw.githubusercontent.com/intersystems-community/iris-driver-distribution/main/intersystems_irispython-3.2.0-py3-none-any.whl
Django~=4.0.2
django-iris~=0.1.5
```

Let's connect our Django application to the IRIS, open file todoApp/settings.py



DATABASES defines connections settings to the database

ENGINE should be djangoIRIS

NAME should point to Namespace in IRIS

Just change it to something, where it can connect. For instance

```
DATABASES = {
    'default': {
        'ENGINE': 'django_iris',
        'NAME': 'DJANGOTODO',
        'HOST': 'localhost',
        'PORT': 1972,
        'USER': '_SYSTEM',
        'PASSWORD': 'SYS',
    }
}
```

And start migration

```
python3 manage.py migrate
```

```
└─$ python3 manage.py migrate
Operations to perform:
  Apply all migrations: admin, auth, contenttypes, sessions, todos
Running migrations:
  Applying contenttypes.0001_initial... OK
  Applying auth.0001_initial... OK
  Applying admin.0001_initial... OK
  Applying admin.0002_logentry_remove_auto_add... OK
  Applying admin.0003_logentry_add_action_flag_choices... OK
  Applying contenttypes.0002_remove_content_type_name... OK
  Applying auth.0002_alter_permission_name_max_length... OK
  Applying auth.0003_alter_user_email_max_length... OK
  Applying auth.0004_alter_user_username_opts... OK
  Applying auth.0005_alter_user_last_login_null... OK
  Applying auth.0006_require_contenttypes_0002... OK
  Applying auth.0007_alter_validators_add_error_messages... OK
  Applying auth.0008_alter_user_username_max_length... OK
  Applying auth.0009_alter_user_last_name_max_length... OK
  Applying auth.0010_alter_group_name_max_length... OK
  Applying auth.0011_update_proxy_permissions... OK
  Applying auth.0012_alter_user_first_name_max_length... OK
  Applying sessions.0001_initial... OK
  Applying todos.0001_initial... OK
```

No errors, all tables on IRIS side is created

And we are ready to start our application

```
python3 manage.py runserver
```

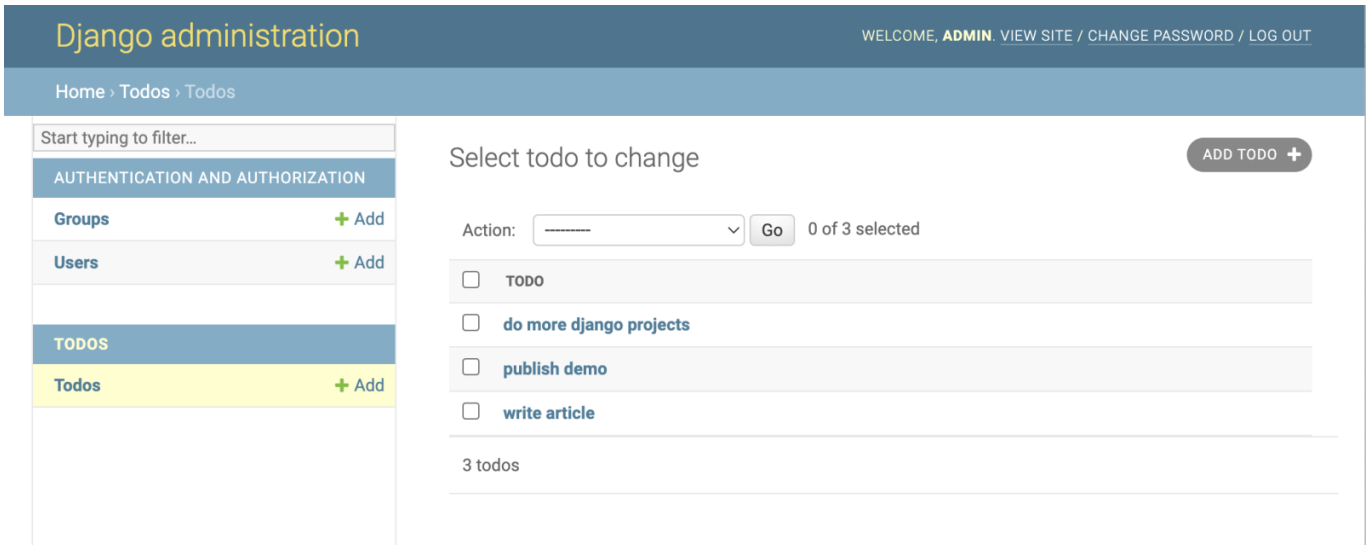
```
└─$ python3 manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
February 25, 2022 - 15:05:39
Django version 4.0.2, using settings 'todoApp.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
[25/Feb/2022 15:05:41] "GET / HTTP/1.1" 302 0
[25/Feb/2022 15:05:41] "GET /todos HTTP/1.1" 301 0
[25/Feb/2022 15:05:41] "GET /todos/ HTTP/1.1" 200 2328
[25/Feb/2022 15:05:41] "GET /static/css/style.css HTTP/1.1" 200 225
Not Found: /favicon.ico
[25/Feb/2022 15:05:43] "GET /favicon.ico HTTP/1.1" 404 2570
[25/Feb/2022 15:05:45] "POST /todos/add/ HTTP/1.1" 302 0
[25/Feb/2022 15:05:45] "GET /todos/ HTTP/1.1" 200 2904
```

Django comes with an admin panel

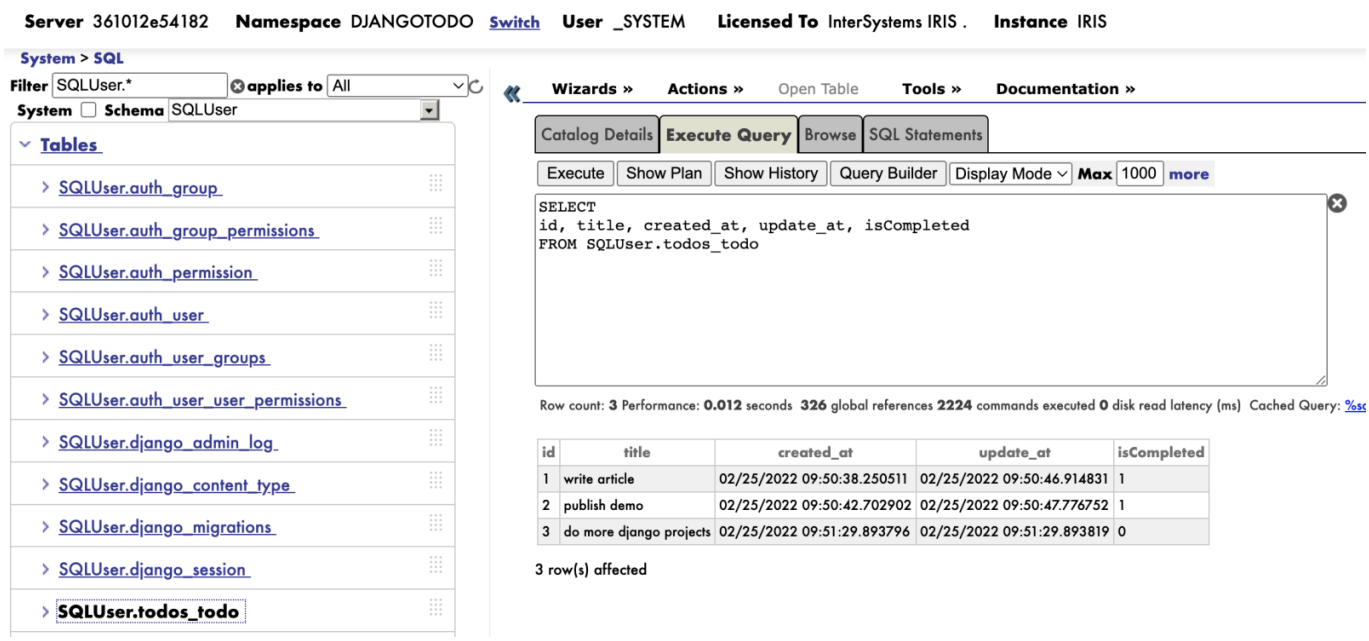
`python3 manage.py createsuperuser`

```
└─$ python3 manage.py createsuperuser
Username (leave blank to use 'daimor'): admin
Email address: admin@example.com
Password:
Password (again):
The password is too similar to the username.
This password is too short. It must contain at least 8 characters.
This password is too common.
Bypass password validation and create user anyway? [y/N]: y
Superuser created successfully.
```

And admin panel is available by link http://localhost:8000/admin/,



And how it stored in IRIS



There are still some scope of work needs to be done to have a full support. Work still in progress for Python DB-API driver from InterSystems, and also for this django-iris project.

Be aware, that it may not work so smooth on Community Edition version, due to the way how Django connects to the database, it may use all the licenses very quickly

If you like the project, and its future impact of using IRIS please vote on OpenExchange contest

#Embedded Python #Framework #Python #InterSystems IRIS #InterSystems IRIS for Health
Check the related application on InterSystems Open Exchange

Source URL:https://community.intersystems.com/post/welcome-django