

RIGA TECHNICAL UNIVERSITY TELECOMMUNICATIONS SOFTWARE

FIRST PRACTICAL EXERCISE

SEBASTIAN TOMICHAN NALUTHENGUMGAL

231AEM011

LAB WORK REPORT

WIRESHARK: NETWORK TRAFFIC CAPTURE AND ANALYZE

Student Name Surname:	Student ID:	Date:
SEBASTIAN TOMICHAN NALUTHENGUMGAL	231AEM011	21-01-24

Practical Exercise 3 (Python cloud full stack development)

Example1: Django's Hello World program (Tips: • This application inspection of a specific function, please return a string-related web page that can combine with CSS and JS to design your style.)

django

View [release notes](#) for Django 5.0



The install worked successfully! Congratulations!

You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs.



Django Documentation

Topics, references, & how-to's



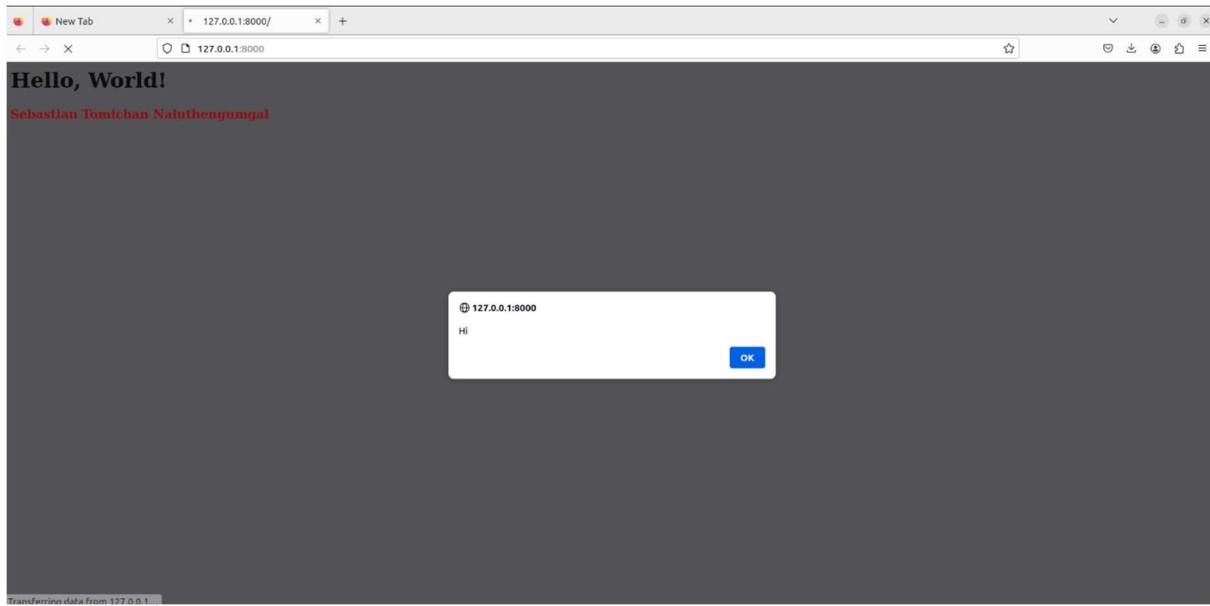
Tutorial: A Polling App

Get started with Django



Django Community

Connect, get help, or contribute



```
sebastian@sebastian-VirtualBox: ~/Desktop/seban_project/myproject
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ ^[[200-django-admin startproject myproject
django-admin: command not found
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ django-admin startproject myproject
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ ls
manage.py  myproject
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project/myproject$ cd myproject
python manage.py startapp project1
python: can't open file '/home/sebastian/Desktop/seban_project/myproject/myproject/manage.py': [Errno 2] No such file or directory
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project/myproject$ ls
asgi.py  __init__.py settings.py urls.py wsgi.py
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project/myproject$ cd ..
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ ls
manage.py  myproject
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ python manage.py startapp project1
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ ls
id: no input files
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ ls
manage.py  myproject  project1
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ cd myproject
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project/myproject$ ls
asgi.py  __init__.py settings.py urls.py wsgi.py
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ cd ..
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
January 18, 2024 - 18:26:30
Django version 5.0.1, using settings 'myproject.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

[18/Jan/2024 18:26:39] "GET / HTTP/1.1" 200 16629
Not Found: /favicon.ico
(base) sebastian@sebastian-VirtualBox:~/Desktop/seban_project$ python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
January 18, 2024 - 18:33:42
Django version 5.0.1, using settings 'myproject.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

Not Found: /
[18/Jan/2024 18:34:20] "GET / HTTP/1.1" 404 2175
/home/sebastian/Desktop/seban_project/myproject/project1/urls.py changed, reloading.
Watching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
January 18, 2024 - 18:35:22
Django version 5.0.1, using settings 'myproject.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

/home/sebastian/Desktop/seban_project/myproject/project1/urls.py changed, reloading.
Watching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
January 18, 2024 - 18:35:22
Django version 5.0.1, using settings 'myproject.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

Not Found: /
[18/Jan/2024 18:35:27] "GET / HTTP/1.1" 404 2171
Not Found: /
[18/Jan/2024 18:35:30] "GET / HTTP/1.1" 404 2171
/home/sebastian/Desktop/seban_project/myproject/myproject/urls.py changed, reloading.
Watching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
```

```

sebastian@sebastian-VirtualBox: ~/Desktop/seban_project/myproject
Django version 5.0.1, using settings 'myproject.settings'
starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

[18/Jan/2024 18:37:54] "GET / HTTP/1.1" 200 22
/home/sebastian/Desktop/seban_project/myproject/project1/views.py changed, reloading.
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.

January 18, 2024 - 18:39:33
Django version 5.0.1, using settings 'myproject.settings'
starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

[18/Jan/2024 18:39:37] "GET / HTTP/1.1" 200 83
/home/sebastian/Desktop/seban_project/myproject/project1/views.py changed, reloading.
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.

January 18, 2024 - 18:40:28
Django version 5.0.1, using settings 'myproject.settings'
starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

[18/Jan/2024 18:40:41] "GET / HTTP/1.1" 200 121
/home/sebastian/Desktop/seban_project/myproject/project1/views.py changed, reloading.
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.

January 18, 2024 - 18:41:36
Django version 5.0.1, using settings 'myproject.settings'
starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

[18/Jan/2024 18:41:39] "GET / HTTP/1.1" 200 149

```

The screenshot shows the Spyder Python IDE interface. The left sidebar displays the project structure:

```

myproject
├── myproject
│   ├── __init__.py
│   ├── asgi.py
│   ├── settings.py
│   └── urls.py
└── project1
    ├── __init__.py
    ├── migrations
    ├── admin.py
    ├── apps.py
    ├── models.py
    ├── tests.py
    └── views.py

```

The main area shows the code for `views.py` in the `project1` directory:

```

from django.shortcuts import render
from django.http import HttpResponseRedirect
def hello_world(request):
    return HttpResponseRedirect(<body style="background-color:gray;><h1>Hello, World!</h1><h2>Sebastian Tomášek Nečichlý</h2></body>")

```

The right side of the interface includes a Source tab, a Console tab (showing Python 3.11.5 and IPython 8.28.0), and a Usage help panel.

The screenshot shows the Spyder Python IDE interface. The left sidebar displays the project structure:

```

myproject
├── myproject
│   ├── __init__.py
│   ├── asgi.py
│   ├── settings.py
│   └── urls.py
└── project1
    ├── __init__.py
    ├── migrations
    ├── admin.py
    ├── apps.py
    ├── models.py
    ├── tests.py
    └── views.py

```

The main area shows the code for `urls.py` in the `project1` directory:

```

"""
URL configuration for myproject project.

The 'urlpatterns' list routes URLs to views. For more information please see:
    https://docs.djangoproject.com/en/5.0/topics/http/urls/
Examples:
Function views
    1. Add an import: from my_app import views
    2. Add a URL to urlpatterns: path('', views.home, name='home')
Class-based views
    1. Add an import: from other_app.views import Home
    2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
Including another URLconf
    1. Import the include() function: from django.urls import include, path
    2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
"""

from django.contrib import admin
from django.urls import path, include
urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('project1.urls'))
]

```

The right side of the interface includes a Source tab, a Console tab (showing Python 3.11.5 and IPython 8.28.0), and a Usage help panel.

The screenshot displays two separate Django project configurations in the Spyder IDE:

- Top Project (myproject):**
 - File Explorer:** Shows `myproject` containing `__init__.py`, `asgi.py`, `settings.py`, `urls.py`, and `wsgi.py`. It also contains a nested `project` folder with `__init__.py`, `migrations`, `admin.py`, `apps.py`, `models.py`, `tests.py`, `urls.py`, `views.py`, and `db.sqlite3`.
 - Code Editor:** The `settings.py` file is open, showing the generated Django settings configuration. It includes imports for `Path` from `pathlib`, defines `BASE_DIR` as the parent of the current file, and lists `INSTALLED_APPS` and `MIDDLEWARE`.
 - Console:** Shows Python 3.11.5 and IPython 8.28.0 environments.
- Bottom Project (project1):**
 - File Explorer:** Shows `project1` containing `__init__.py`, `asgi.py`, `settings.py`, `urls.py`, and `views.py`.
 - Code Editor:** The `urls.py` file is open, showing URL patterns for the `hello_world` view.
 - Console:** Shows Python 3.11.5 and IPython 8.28.0 environments.

Example 2: Improve example 1 and return an HTML page, not a string; please use MVT (Model View Template) to design the pattern. You are welcome to use multiple decorations on your HTML page

```
sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2
```

```
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ ls
page1.html
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ django-admin startproject example2
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ ls
example2 page1.html
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ cd example2/
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ ls
manage.py
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ [[200-python manage.py startapp hello2app
python command not found
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ python manage.py startapp hello2app
[[!Dcommand 'python' not found, did you mean:
  command 'python3' from deb bythor (8.22.1-2)
  command 'python3' from deb bythor (8.12.5-1build1)
Try: sudo apt install <deb name>
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ python manage.py startapp hello2app
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ ls
example2 hello2app manage.py
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ python manage.py runserver
Traceback (most recent call last):
File "/home/sebastian/Desktop/project 2/example2/manage.py", line 22, in <module>
    main()
File "/home/sebastian/Desktop/project 2/example2/manage.py", line 18, in main
    execute_from_command_line(sys.argv)
File "/home/sebastian/anaconda3/lib/python3.11/site-packages/django/core/management/__init__.py", line 442, in execute_from_command_line
    settings.INSTALLED_APPS
File "/home/sebastian/anaconda3/lib/python3.11/site-packages/django/core/management/__init__.py", line 382, in execute
    settings.INSTALLED_APPS
File "/home/sebastian/anaconda3/lib/python3.11/site-packages/django/conf/__init__.py", line 89, in __getattr__
    self._setup(name)
File "/home/sebastian/anaconda3/lib/python3.11/site-packages/django/conf/__init__.py", line 76, in _setup
    self._wrapped = Settings(settings_module)
        .....  
File "/home/sebastian/anaconda3/lib/python3.11/site-packages/django/conf/__init__.py", line 190, in __init__
    _mod = importlib.import_module(self.SETTINGS_MODULE)
        .....  
File "/home/sebastian/anaconda3/lib/python3.11/importlib/_init__.py", line 126, in import_module
    return _bootstrap._gcd_import(*args, level=0)
        .....  
File "<frozen importlib._bootstrap>", line 1204, in _gcd_import
File "<frozen importlib._bootstrap>", line 1176, in _find_and_load
File "<frozen importlib._bootstrap>", line 1147, in _find_and_load_unlocked
File "<frozen importlib._bootstrap>", line 699, in _load_unlocked
File "<frozen importlib._bootstrap_external>", line 948, in exec_module
File "<frozen importlib._bootstrap_external>", line 941, in _load_unlocked
File "/home/sebastian/Desktop/project 2/example2/example2/settings.py", line 58, in <module>
    "DIRS": [os.path.join(BASE_DIR, "hello2app/template")],
        .....
```

```
sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2
```

```
django.template.exceptions.TemplateDoesNotExist: hello2app/page1.htm
[18/Jan/2024 19:26:55] "GET / HTTP/1.1" 500 77186
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ ls
db.sqlite3 example2 hello2app manage.py
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ python manage.py makemigrations
no changes detected
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ python manage.py migrate
Operations to perform:
  Apply all migrations: admin, auth, contenttypes, sessions
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_username_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_login_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
(base) sebastian@sebastian-VirtualBox: ~/Desktop/project 2/example2$ python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...
System check identified no issues (0 silenced).
January 18, 2024 - 19:26:00
Django version 5.0.1, using settings 'example2.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

Internal Server Error: /
Traceback (most recent call last):
File "/home/sebastian/anaconda3/lib/python3.11/site-packages/django/core/handlers/exception.py", line 55, in inner
    response = wrapped_callback(request, *args, **kwargs)
        .....
```

```
File "/home/sebastian/anaconda3/lib/python3.11/site-packages/django/core/handlers/base.py", line 197, in _get_response
    response = wrapped_callback(request, *callback_args, **callback_kwargs)
        .....
```

```
File "/home/sebastian/Desktop/project 2/example2/hello2app/views.py", line 5, in hello_world
    render(request, "hello2app/page1.html")
```

```
-/Desktop/project 2/example2 - Spyder (Python 3.11)
```

```
File Edit Search Source Run Debug Consoles Projects Tools View Help
```

```
File Edit Search Source Run Debug Consoles Projects Tools View Help
```

```
Source Console Object
```

```
Usage
```

```
Here you can get help of any object by pressing F1 or clicking on it, either in the Editor or the Console.
```

```
Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.
```

```
New to Spyder? Read our tutorial
```

```
Console 1/A X
```

```
File: /home/sebastian/Desktop/project 2/example2/hello2app/urls.py , MDI = /home/sebastian/Desktop/project 2/example2
```

```
In [4]: runfile('/home/sebastian/Desktop/project 2/example2/hello2app/urls.py', wdir='/home/sebastian/Desktop/project 2/example2')
Traceback (most recent call last):
File "/home/sebastian/Desktop/project 2/example2/hello2app/urls.py", line 5, in <module>
    exec(code, globals())
File "/home/sebastian/Desktop/project 2/example2/hello2app/urls.py", line 2, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

```
In [4]:
```

```
Python Console History
```

-/Desktop/project 2/example2 - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

/home/sebastian/Desktop/project 2/example2/hello2app/views.py

```
urls.py - hello2app
1 from django.shortcuts import render
2 # Create your views here.
3 def hello_world(request):
4     return HttpResponse("Hello")
5
6     return render(request, 'helloapp/page1.html')
```

Source | Consoles | Object

Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our [tutorial](#)

Help | Variable Explorer | Plots | Files

Console 1/A

```
In [3]: runfile('/home/sebastian/Desktop/project 2/example2/hello2app/urls.py', wdir='/home/sebastian/Desktop/project 2/example2/hello2app')
Traceback (most recent call last):
  File "/home/sebastian/Desktop/project 2/example2/hello2app/urls.py", line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [4]:

Python Console | History

-/Desktop/project 2/example2 - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

/home/sebastian/Desktop/project 2/example2/settings.py

```
urls.py - example2
32 INSTALLED_APPS = [
33     'django.contrib.admin',
34     'django.contrib.auth',
35     'django.contrib.contenttypes',
36     'django.contrib.sessions',
37     'django.contrib.messages',
38     'django.contrib.staticfiles',
39     'helloapp'
40 ]
41
42 MIDDLEWARE = [
43     'django.middleware.security.SecurityMiddleware',
44     'django.contrib.sessions.middleware.SessionMiddleware',
45     'django.middleware.common.CommonMiddleware',
46     'django.middleware.csrf.CsrfViewMiddleware',
47     'django.contrib.auth.middleware.AuthenticationMiddleware',
48     'django.contrib.messages.middleware.MessageMiddleware',
49     'django.middleware.clickjacking.XFrameOptionsMiddleware',
50 ]
51
52 ROOT_URLCONF = "example2.urls"
53
54 TEMPLATES = [
55     {
56         'BACKEND': 'django.template.backends.django.DjangoTemplates',
57         'DIRS': [os.path.join(BASE_DIR, 'helloapp/template')],
58         'APP_DIRS': True,
59         'OPTIONS': {
60             'context_processors': [
61                 'django.template.context_processors.debug',
62                 'django.template.context_processors.request',
63                 'django.contrib.auth.context_processors.auth',
64                 'django.contrib.messages.context_processors.messages',
65             ],
66         },
67     },
68 ]
69
70 WSGI_APPLICATION = "example2.wsgi.application"
71
72
73 # Database
74 # https://docs.djangoproject.com/en/5.0/ref/settings/#databases
75
76 DATABASES = {
77     'default': {
78         'ENGINE': 'django.db.backends.sqlite3',
79         'NAME': BASE_DIR / 'db.sqlite3',
80     }
81 }
82
83
84 # Password validation
85 # https://docs.djangoproject.com/en/5.0/ref/settings/#auth-password-validation
86
87 AUTH_PASSWORD_VALIDATORS = [
88     {
89         'NAME': 'django.contrib.auth.password_validation.UserAttributeSimilarityValidator',
90     },
91     {
92         'NAME': 'django.contrib.auth.password_validation.MinimumLengthValidator',
93     },
94     {
95         'NAME': 'django.contrib.auth.password_validation.CommonPasswordValidator',
96     },
97     {
98         'NAME': 'django.contrib.auth.password_validation.NumericPasswordValidator',
99     },
100 ]
101
102
103 # Internationalization
104 # https://docs.djangoproject.com/en/5.0/topics/i18n/
105 LANGUAGE_CODE = "en-us"
106
107 TIME_ZONE = 'UTC'
108
109 USE_I18N = True
```

Source | Consoles | Object

Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our [tutorial](#)

Help | Variable Explorer | Plots | Files

Console 1/A

```
In [3]: runfile('/home/sebastian/Desktop/project 2/example2/urls.py', wdir='/home/sebastian/Desktop/project 2/example2')
Traceback (most recent call last):
  File "/home/sebastian/Desktop/project 2/example2/urls.py", line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [4]:

Python Console | History

-/Desktop/project 2/example2 - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

/home/sebastian/Desktop/project 2/example2/settings.py

```
urls.py - hello2app
68 ],
69
70 WSGI_APPLICATION = "example2.wsgi.application"
71
72
73 # Database
74 # https://docs.djangoproject.com/en/5.0/ref/settings/#databases
75
76 DATABASES = {
77     'default': {
78         'ENGINE': 'django.db.backends.sqlite3',
79         'NAME': BASE_DIR / 'db.sqlite3',
80     }
81 }
82
83
84 # Password validation
85 # https://docs.djangoproject.com/en/5.0/ref/settings/#auth-password-validation
86
87 AUTH_PASSWORD_VALIDATORS = [
88     {
89         'NAME': 'django.contrib.auth.password_validation.UserAttributeSimilarityValidator',
90     },
91     {
92         'NAME': 'django.contrib.auth.password_validation.MinimumLengthValidator',
93     },
94     {
95         'NAME': 'django.contrib.auth.password_validation.CommonPasswordValidator',
96     },
97     {
98         'NAME': 'django.contrib.auth.password_validation.NumericPasswordValidator',
99     },
100 ]
101
102
103 # Internationalization
104 # https://docs.djangoproject.com/en/5.0/topics/i18n/
105 LANGUAGE_CODE = "en-us"
106
107 TIME_ZONE = 'UTC'
108
109 USE_I18N = True
```

Source | Consoles | Object

Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our [tutorial](#)

Help | Variable Explorer | Plots | Files

Console 1/A

```
In [3]: runfile('/home/sebastian/Desktop/project 2/example2/urls.py', wdir='/home/sebastian/Desktop/project 2/example2')
Traceback (most recent call last):
  File "/home/sebastian/Desktop/project 2/example2/urls.py", line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [4]:

Python Console | History

-/Desktop/project 2/example2 - Spyder (Python 3.11)

/home/sebastian/Desktop/project 2/example2/example2/settings.py

```

83
84     # Password validation
85     # https://docs.djangoproject.com/en/5.0/ref/settings/#auth-password-validation
86
87     AUTH_PASSWORD_VALIDATORS = [
88         {
89             "NAME": "django.contrib.auth.password_validation.UserAttributeSimilarityValidator",
90         },
91         {
92             "NAME": "django.contrib.auth.password_validation.MinimumLengthValidator",
93         },
94         {
95             "NAME": "django.contrib.auth.password_validation.CommonPasswordValidator",
96         },
97         {
98             "NAME": "django.contrib.auth.password_validation.NumericPasswordValidator",
99         },
100     ]
101
102
103     # Internationalization
104     # https://docs.djangoproject.com/en/5.0/topics/i18n/
105
106     LANGUAGE_CODE = "en-us"
107
108     TIME_ZONE = "UTC"
109
110     USE_I18N = True
111
112     USE_TZ = True
113
114
115     # Static files (CSS, JavaScript, Images)
116     # https://docs.djangoproject.com/en/5.0/howto/static-files/
117
118     STATIC_URL = "static/"
119
120     # Default primary key field type
121     # https://docs.djangoproject.com/en/5.0/ref/settings/#default-auto-field
122
123     DEFAULT_AUTO_FIELD = "django.db.models.BigAutoField"
124
125

```

Source | Console | Object

Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in **Preferences > Help**.

New to Spyder? Read our [tutorial](#)

Help | Variable Explorer | Plots | Files

Console 1/A

```

example2/settings.py, line 83 in <module>
  exec(code, globals, locals)
File /Desktop/project 2/example2/hello2app/urls.py
  from .views import hello_world
ImportError: attempted relative import with no known parent package

```

In [4]:

Python Console | History

conda base (Python 3.11.5) | Completions: conda_base | LSP: Python | Line 22, Col 40 | ASCII | LF | RW | Mem: 86%

-/Desktop/project 2/example2 - Spyder (Python 3.11)

/home/sebastian/Desktop/project 2/example2/example2/urls.py

```

1     """
2     URL configuration for example project.
3
4     The 'urlpatterns' list routes URLs to views. For more information please see:
5         https://docs.djangoproject.com/en/5.0/topics/http/urls/
6     Examples:
7         Function views
8             1. Add an import: from my_app import views
9             2. Add a URL to urlpatterns: path('', views.home, name='home')
10            Class-based views
11            1. Add an import: from other_app.views import Home
12            2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
13        Including another URLconf
14            1. Import the include() function: from django.urls import include, path
15            2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
16
17    from django.contrib import admin
18    from django.urls import path, include
19
20    urlpatterns = [
21        path("admin/", admin.site.urls),
22        path("", include("hello2app.urls")),
23    ]
24

```

Source | Console | Object

Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in **Preferences > Help**.

New to Spyder? Read our [tutorial](#)

Help | Variable Explorer | Plots | Files

Console 1/A

```

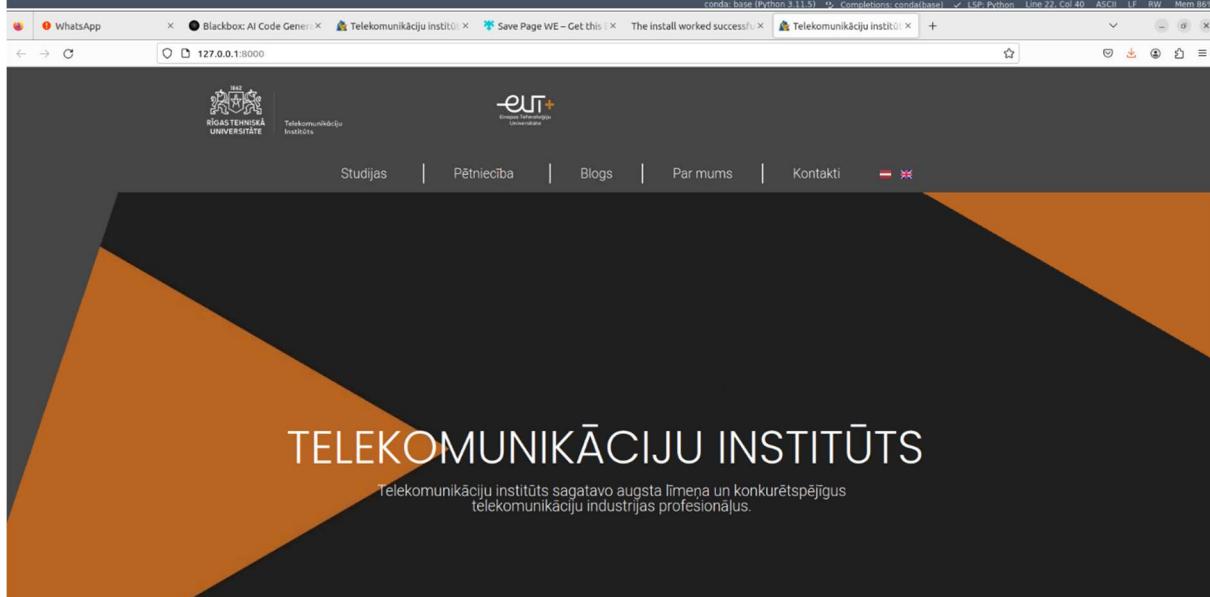
example2/urls.py, line 83 in <module>
  exec(code, globals, locals)
File /Desktop/project 2/example2/hello2app/urls.py
  from .views import hello_world
ImportError: attempted relative import with no known parent package

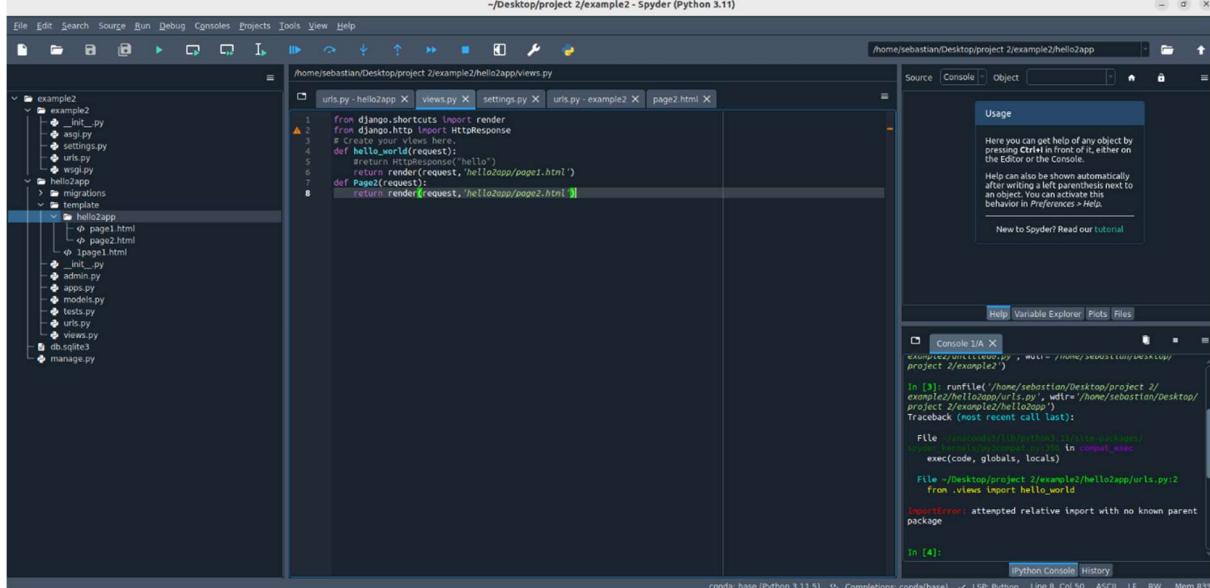
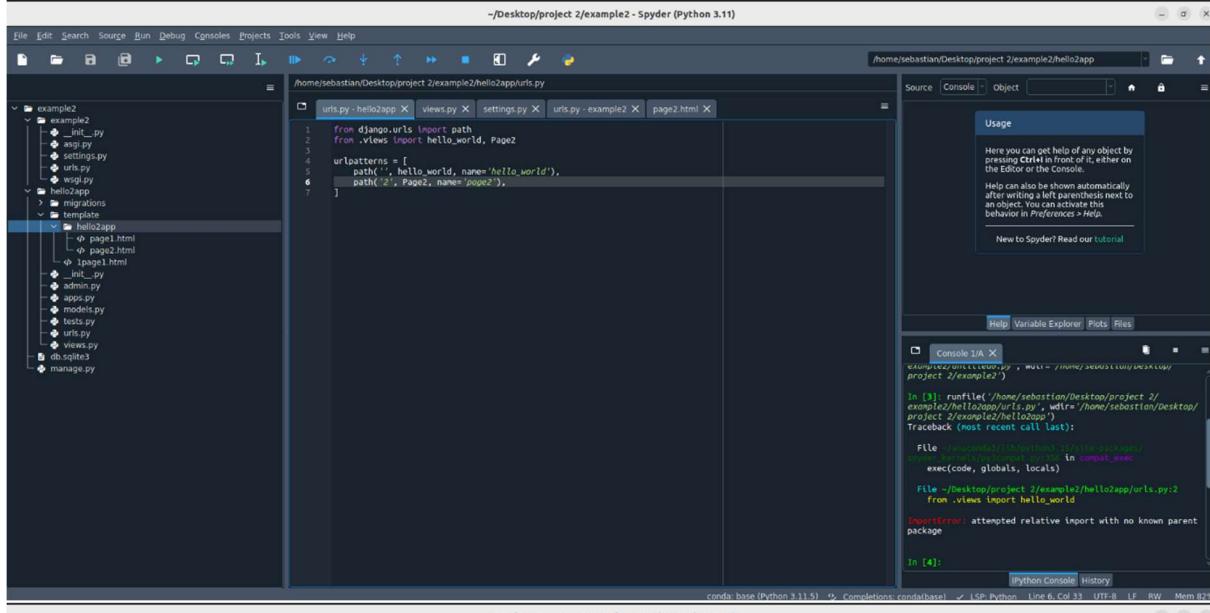
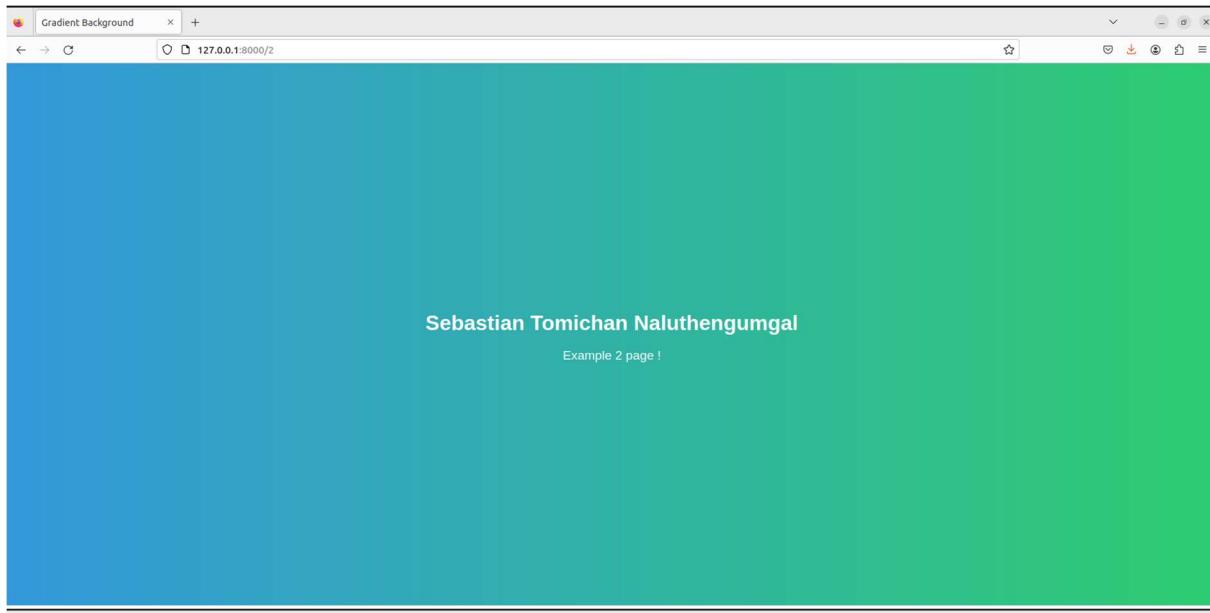
```

In [4]:

Python Console | History

conda base (Python 3.11.5) | Completions: conda_base | LSP: Python | Line 22, Col 40 | ASCII | LF | RW | Mem: 86%





-/Desktop/project 2/example2 - Spyder (Python 3.11)

/home/sebastian/Desktop/project 2/example2/helloapp

File Edit Search Source Run Debug Consoles Projects Tools View Help

Source Console Object Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our [tutorial](#)

Help Variable Explorer Plots Files

Console 1/A X

```
example2.urls.py, line 1 in <module>
  File </home/sebastian/Desktop/project 2/example2/helloapp/urls.py>, line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [4]:

Python Console History

-/Desktop/project 2/example2 - Spyder (Python 3.11)

/home/sebastian/Desktop/project 2/example2/helloapp

File Edit Search Source Run Debug Consoles Projects Tools View Help

Source Console Object Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our [tutorial](#)

Help Variable Explorer Plots Files

Console 1/A X

```
example2.urls.py, line 1 in <module>
  File </home/sebastian/Desktop/project 2/example2/helloapp/urls.py>, line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [4]:

Python Console History

-/Desktop/project 2/example2 - Spyder (Python 3.11)

/home/sebastian/Desktop/project 2/example2/helloapp

File Edit Search Source Run Debug Consoles Projects Tools View Help

Source Console Object Usage

Here you can get help of any object by pressing **Ctrl+Q** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our [tutorial](#)

Help Variable Explorer Plots Files

Console 1/A X

```
example2.urls.py, line 1 in <module>
  File </home/sebastian/Desktop/project 2/example2/helloapp/urls.py>, line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [4]:

Python Console History

-/Desktop/project 2/example2 - Spyder (Python 3.11)

/home/sebastian/Desktop/project 2/example2/hellozapp

File Edit Search Source Run Debug Consoles Projects Tools View Help

Source Console Object Usage

New to Spyder? Read our tutorial

Help Variable Explorer Plots Files

Console 1/A X

```
In [1]: runfile('/home/sebastian/Desktop/project 2/example2/hellozapp/urls.py', wdir='/home/sebastian/Desktop/project 2/example2/hellozapp')
Traceback (most recent call last):
  File "/home/sebastian/Desktop/project 2/example2/hellozapp/urls.py", line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [2]:

Python Console History

File Edit Search Source Run Debug Consoles Projects Tools View Help

Source Console Object Usage

New to Spyder? Read our tutorial

Help Variable Explorer Plots Files

Console 1/A X

```
In [1]: runfile('/home/sebastian/Desktop/project 2/example2/hellozapp/urls.py', wdir='/home/sebastian/Desktop/project 2/example2/hellozapp')
Traceback (most recent call last):
  File "/home/sebastian/Desktop/project 2/example2/hellozapp/urls.py", line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [2]:

Python Console History

File Edit Search Source Run Debug Consoles Projects Tools View Help

Source Console Object Usage

New to Spyder? Read our tutorial

Help Variable Explorer Plots Files

Console 1/A X

```
In [1]: runfile('/home/sebastian/Desktop/project 2/example2/hellozapp/template/hellozapp/page2.html', wdir='/home/sebastian/Desktop/project 2/example2/hellozapp')
Traceback (most recent call last):
  File "/home/sebastian/Desktop/project 2/example2/hellozapp/template/hellozapp/page2.html", line 1, in <module>
    from .views import hello_world
ImportError: attempted relative import with no known parent package
```

In [2]:

Python Console History

Example 3: Cloud message board. Basic function definition: 1, Submit message function: Users can set their own name as A, specify any name B and leave a message to B, record it as msg, and the message will be saved in the cloud. 2, Get message function: input name A, and the cloud will return the 20 latest message records.

```
sebastian@sebastian-VirtualBox: ~[[200-pip install Flask
(base) sebastian@sebastian-VirtualBox: $ pip install Flask
pip: command not found
(base) sebastian@sebastian-VirtualBox: $ -pip install Flask
Command 'pip' was not found, did you mean:
  command 'pip' from deb python3-pip (22.0.2+dfsg-1ubuntu0.3)
  command 'pip' from deb lpython (1.1.10)
Try: sudo apt install <deb name>
(base) sebastian@sebastian-VirtualBox: $ pip install Flask
Collecting Flask
  Downloading Flask-3.0.1-py3-none-any.whl.metadata (3.6 kB)
    Obtaining dependency information for Flask from https://files.pythonhosted.org/packages/bd/0e/63730e88e981ae57c23badc499898314a1110a4141f77d7bd929b552fb4/flask-3.0.1-py3-none-any.whl.metadata
      Obtaining dependency information for Werkzeug<3.0.0 (from Flask)
        Obtaining dependency information for Werkzeug<3.0.0 (from Flask)
          Downloading werkzeug-3.0.1-py3-none-any.whl.metadata (4.1 kB)
Requirement already satisfied: click<=8.1.2 in ./anaconda3/lib/python3.11/site-packages (from Flask) (3.1.2)
Collecting itsdangerous<2.1.2 (from Flask)
  Downloading itsdangerous-2.1.2-py3-none-any.whl (15 kB)
Requirement already satisfied: click>=8.1.3 in ./anaconda3/lib/python3.11/site-packages (from Flask) (8.1.7)
Collecting blinker>=1.6.2 (from Flask)
  Obtaining dependency information for blinker>=1.6.2 from https://files.pythonhosted.org/packages/fa/2a/7f3714cbc6356a0fec525ce7a0613d581072ed6eb53eb7b9754f3db807/blinker-1.7.0-py3-none-any.whl.metadata
    Downloading blinker-1.7.0-py3-none-any.whl.metadata (1.9 kB)
Requirement already satisfied: MarkupSafe<2.0 in ./anaconda3/lib/python3.11/site-packages (from Jinja2>=3.1.2->Flask) (2.1.3)
Downloading flask-3.0.1-py3-none-any.whl (101 kB)
  101.2/101.2 KB 1.3 MB/s eta 0:00:00
Downloading blinker-1.7.0-py3-none-any.whl (13 kB)
  13.0/13.0 KB 1.3 MB/s eta 0:00:00
Downloading werkzeug-3.0.1-py3-none-any.whl (226 kB)
  226.0/226.0 KB 1.3 MB/s eta 0:00:00
Installing collected packages: Werkzeug, itsdangerous, blinker, Flask
Successfully installed Flask-3.0.1 Werkzeug-3.0.1 blinker-1.7.0 itsdangerous-2.1.2
(base) sebastian@sebastian-VirtualBox: $ mkdir clouds
(base) sebastian@sebastian-VirtualBox: ~cd clouds
(base) sebastian@sebastian-VirtualBox: ~/clouds$ mkdir msgapp
(base) sebastian@sebastian-VirtualBox: ~/clouds/msgapp$ cd msgapp
(base) sebastian@sebastian-VirtualBox: ~/clouds/msgapp$ export FLASK_APP=app
(base) sebastian@sebastian-VirtualBox: ~/clouds/msgapp$ export FLASK_ENV=development
(base) sebastian@sebastian-VirtualBox: ~/clouds/msgapp$ flask run
 * Serving Flask app 'app'
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
127.0.0.1 - [28/Jan/2024 10:40:44] "GET / HTTP/1.1" 200 -
127.0.0.1 - [28/Jan/2024 10:40:45] "GET /get_messages/ HTTP/1.1" 404 -
127.0.0.1 - [28/Jan/2024 10:40:45] "GET /favicon.ico HTTP/1.1" 404 -
```



Cloud Message Board

Sender Name (A) :

Receiver Name (B) :

Rich Text Input Rich Text Input:

Messages :

1. Sender : **sebastian**
To:**vijay**
"hi"

2. Sender : **anoop**
To:**manu**
"hello manu"

~/project/MyProject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

MyProject
└── app1
 ├── migrations
 │ └── __init__.py
 ├── admin.py
 ├── apps.py
 ├── forms.py
 ├── models.py
 ├── tests.py
 └── views.py

temp.py X models.py X views.py X

```
1 from django.db import models
2
3 class MyForm(models.Model):
4     input1 = models.CharField(max_length=255)
5     input2 = models.CharField(max_length=255)
6     rich_text_field = models.TextField(default='')
7     rich_input = models.TextField()
8
9     def __str__(self):
10         return f'{self.input1} - {self.input2} - {self.rich_text_field}'
```

Source Editor Object Help Variable Explorer Plots Files

name

```
Definition: name(object='') -> str str bytes_or_buffer[ encoding[ errors]] --> str
```

Create a new string object from the given object. If encoding or errors is specified, then the object must expose a data buffer that will be decoded using the given encoding and error handler. Otherwise, returns the result of object.__str__(). If defined or repr(object), encoding defaults to sys.getdefaultencoding(), errors defaults to 'strict'.

Console 1/A X

```
Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.
```

In [1]:

~/project/MyProject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

MyProject
└── app1
 ├── migrations
 │ └── __init__.py
 ├── admin.py
 ├── apps.py
 ├── forms.py
 ├── models.py
 ├── tests.py
 └── views.py

temp.py X models.py X views.py X

```
1 from django.shortcuts import render, redirect
2 from .forms import MyForm
3 from .models import MyFormData
4
5 def home(request):
6     if request.method == 'POST':
7         form = MyForm(request.POST)
8         print(f'form: {form}')
9         if form.is_valid():
10             form.save()
11             print("Form saved successfully!")
12             return redirect('home') # Redirect to the same page after successful form submission
13         else:
14             print("Form is not valid!")
15             print(f'Form errors: {form.errors}')
16     else:
17         form = MyForm()
18
19     existing_data = MyFormData.objects.all()
20     print(f'existing data: {existing_data}')
21     return render(request, 'template.html', {'form': form, 'existing_data': existing_data})
```

Source Editor Object Help Variable Explorer Plots Files

name

```
Definition: name(object='') -> str str bytes_or_buffer[ encoding[ errors]] --> str
```

Create a new string object from the given object. If encoding or errors is specified, then the object must expose a data buffer that will be decoded using the given encoding and error handler. Otherwise, returns the result of object.__str__(). If defined or repr(object), encoding defaults to sys.getdefaultencoding(), errors defaults to 'strict'.

Console 1/A X

```
Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.
```

In [1]:

~/project/MyProject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

MyProject
└── app1
 ├── migrations
 │ └── __init__.py
 ├── admin.py
 ├── apps.py
 ├── forms.py
 ├── models.py
 ├── tests.py
 └── urls.py

temp.py X models.py X views.py X urls.py X

```
1 from django.urls import path
2 from . import views
3
4 urlpatterns = [
5     path('', views.home, name='Home'),
6     # Add more paths as needed
7 ]
```

Source Editor Object Help Variable Explorer Plots Files

name

```
Definition: name(object='') -> str str bytes_or_buffer[ encoding[ errors]] --> str
```

Create a new string object from the given object. If encoding or errors is specified, then the object must expose a data buffer that will be decoded using the given encoding and error handler. Otherwise, returns the result of object.__str__(). If defined or repr(object), encoding defaults to sys.getdefaultencoding(), errors defaults to 'strict'.

Console 1/A X

```
Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.
```

In [1]:

~/project/MyProject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

MyProject

- app1
 - migrations
 - __init__.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - views.py
- MyProject
- template
- db.sqlite3
- manage.py
- urls.py

temp.py models.py views.py urls.py forms.py

```

1  from django import forms
2  from django.forms import CharField
3  from django.contrib.admin.widgets import AdminTextareawidget
4  from .models import MyFormData
5
6  class MyForm(forms.ModelForm):
7      # Add a rich text box field
8      rich_text_field = CharField(widget=AdminTextareawidget)
9
10     class Meta:
11         model = MyForm
12         fields = ['input1', 'input2', 'rich_text_field']
13

```

name

Definition: name(object='') --> str str bytes_or_buffer[encoding[errors]] --> str

Create a new string object from the given object. If encoding or errors is specified, then the object must expose a data buffer that will be decoded using the given encoding and error handler. Otherwise, returns the result of object.__str__() if defined or repr(object). encoding defaults to sys.getdefaultencoding(), errors defaults to 'strict'.

Console I/O

Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.

In [1]:

~/project/MyProject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

MyProject

- app1
 - migrations
 - __init__.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - views.py
- MyProject
- template
- db.sqlite3
- manage.py
- urls.py

temp.py models.py views.py urls.py forms.py apps.py __init__.py template.html

```

1  <%-- your_app/templates/your_app/your_template.html -->
2
3  <!DOCTYPE html>
4  <html lang="en">
5  <head>
6      <meta charset="UTF-8">
7      <meta name="viewport" content="width=device-width, initial-scale=1.0">
8      <title>Your Django Form</title>
9      <!-- Include any additional CSS stylesheets or libraries here -->
10
11 <body>
12     <h1>Cloud Message Board</h1>
13
14     <form method="post" action="{% url 'home' %}>
15         {% csrf_token %}
16
17         <!-- Text Input 1 -->
18         <label for="input1">Sender Name (A)</label>
19         <input type="text" id="input1" name="input1" required>
20         <br>
21
22         <!-- Text Input 2 -->
23         <label for="input2">Receiver Name (A)</label>
24         <input type="text" id="input2" name="input2" required>
25         <br>
26
27         <!-- Rich Text Input -->
28         <label for="rich_text_field">Rich Text Input:</label>
29         <textarea id="rich_text_field" name="rich_text_field" required></textarea>
30         <br>
31
32         <button type="submit">Send Message</button>
33         </form>
34
35     <% if existing_data %>
36     <div>Messages </div>
37     <% else %>
38     <% for data in existing_data %>
39         <li>Sender : <b>{{ data.input1 }}</b> To:<b>{{ data.input2 }}</b> {{ rich_text_field }}</li><br>
40     <% endfor %>
41
42     <!-- Include any additional CSS stylesheets or libraries here -->
43
44 </body>
45 </html>

```

name

Definition: name(object='') --> str str bytes_or_buffer[encoding[errors]] --> str

Create a new string object from the given object. If encoding or errors is specified, then the object must expose a data buffer that will be decoded using the given encoding and error handler. Otherwise, returns the result of object.__str__() if defined or repr(object). encoding defaults to sys.getdefaultencoding(), errors defaults to 'strict'.

Console I/O

Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.

In [1]:

Screenshot captured
You can paste the image from the clipboard.

~/project/MyProject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

MyProject

- app1
 - migrations
 - __init__.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - views.py
- MyProject
- template
- db.sqlite3
- manage.py
- urls.py

temp.py models.py views.py urls.py forms.py apps.py __init__.py template.html

```

10 <head>
11     <h1>Cloud Message Board</h1>
12
13     <form method="post" action="{% url 'home' %}>
14         {% csrf_token %}
15
16         <!-- Text Input 1 -->
17         <label for="input1">Sender Name (A)</label>
18         <input type="text" id="input1" name="input1" required>
19         <br>
20
21         <!-- Text Input 2 -->
22         <label for="input2">Receiver Name (A)</label>
23         <input type="text" id="input2" name="input2" required>
24         <br>
25
26         <!-- Rich Text Input -->
27         <label for="rich_text_field">Rich Text Input:</label>
28         <textarea id="rich_text_field" name="rich_text_field" required></textarea>
29         <br>
30
31         <button type="submit">Send Message</button>
32         </form>
33
34     <% if existing_data %>
35     <div>Messages </div>
36     <% else %>
37     <% for data in existing_data %>
38         <li>Sender : <b>{{ data.input1 }}</b> To:<b>{{ data.input2 }}</b> {{ rich_text_field }}</li><br>
39     <% endfor %>
40
41     <!-- Include any additional scripts or libraries for rich text editing here -->
42
43 </body>
44 </html>

```

name

Definition: name(object='') --> str str bytes_or_buffer[encoding[errors]] --> str

Create a new string object from the given object. If encoding or errors is specified, then the object must expose a data buffer that will be decoded using the given encoding and error handler. Otherwise, returns the result of object.__str__() if defined or repr(object). encoding defaults to sys.getdefaultencoding(), errors defaults to 'strict'.

Console I/O

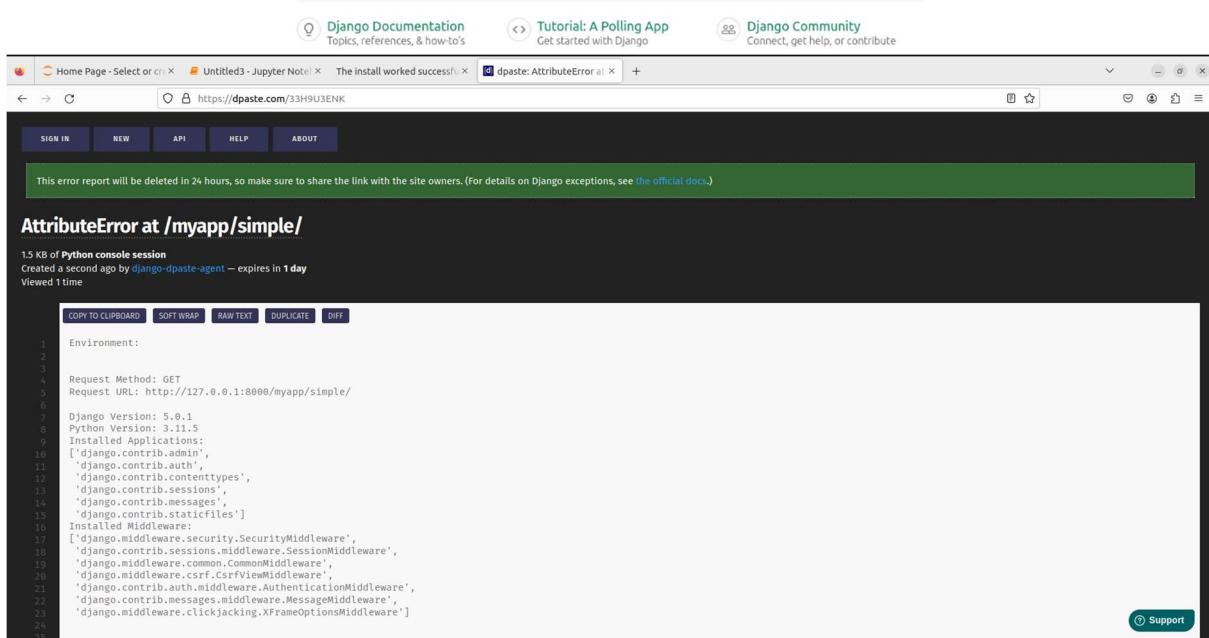
Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.

In [1]:

Example 4: Please try to test Django's different response types, including `HttpResponse` class and subclasses (10 in total), `JsonResponse` class, `StreamingHttpResponse`, and `FileResponse` class.



The screenshot shows a web browser window with the URL `127.0.0.1:8000`. The page title is "django". It displays a green rocket ship icon launching from clouds. Below the icon, the text "The install worked successfully! Congratulations!" is shown, followed by a note: "You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs."



The screenshot shows a web browser window with the URL `https://dpaste.com/33H9U3ENK`. The page title is "dpaste: AttributeError at /myapp/simple/". The main content is a dark-themed code editor displaying a Python exception report. The report includes the following details:

- 1.5 KB of `Python console session`
- Created a second ago by `django-dpaste-agent` — expires in 1 day
- Viewed 11 time
- Request Method: GET
- Request URL: `http://127.0.0.1:8000/myapp/simple/`
- Django Version: 5.0.1
- Python Version: 3.11.5
- Installed Applications:
 - 'django.contrib.admin'
 - 'django.contrib.auth'
 - 'django.contrib.contenttypes'
 - 'django.contrib.sessions'
 - 'django.contrib.messages'
 - 'django.contrib.staticfiles'
- Installed Middleware:
 - 'django.middleware.security.SecurityMiddleware'
 - 'django.contrib.sessions.middleware.SessionMiddleware'
 - 'django.middleware.common.CommonMiddleware'
 - 'django.middleware.csrf.CsrfViewMiddleware'
 - 'django.contrib.auth.middleware.AuthenticationMiddleware'
 - 'django.contrib.messages.middleware.MessageMiddleware'
 - 'django.middleware.clickjacking.XframeOptionsMiddleware'

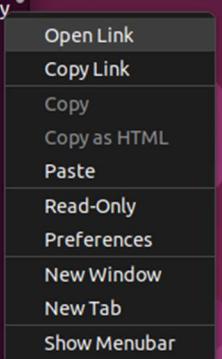
At the bottom right of the code editor, there is a "Support" button.

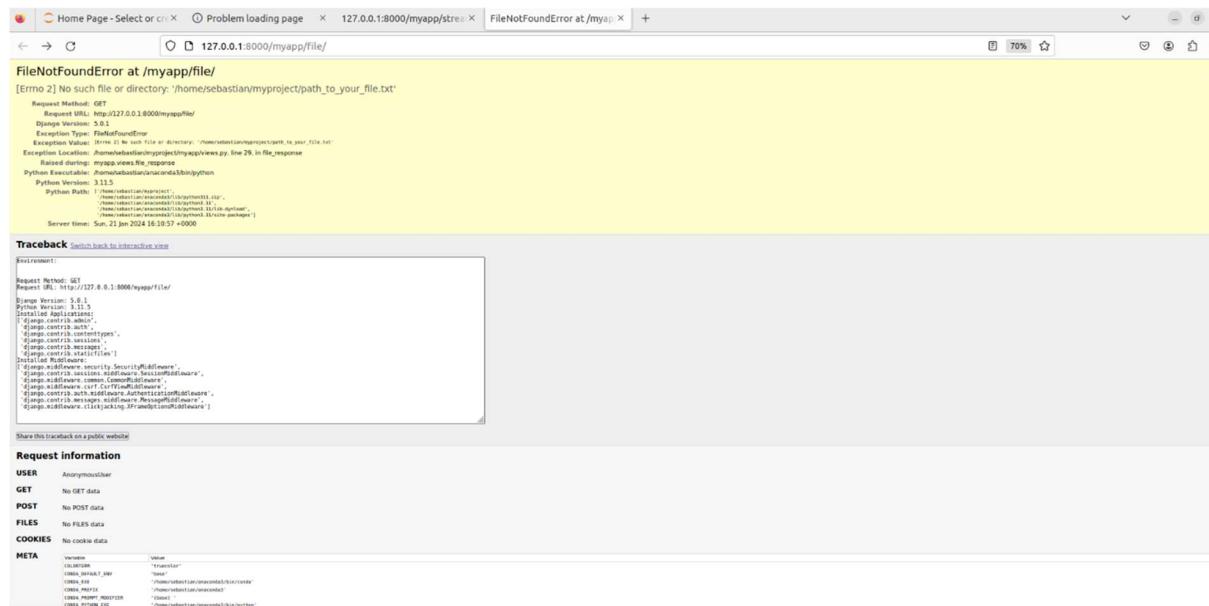
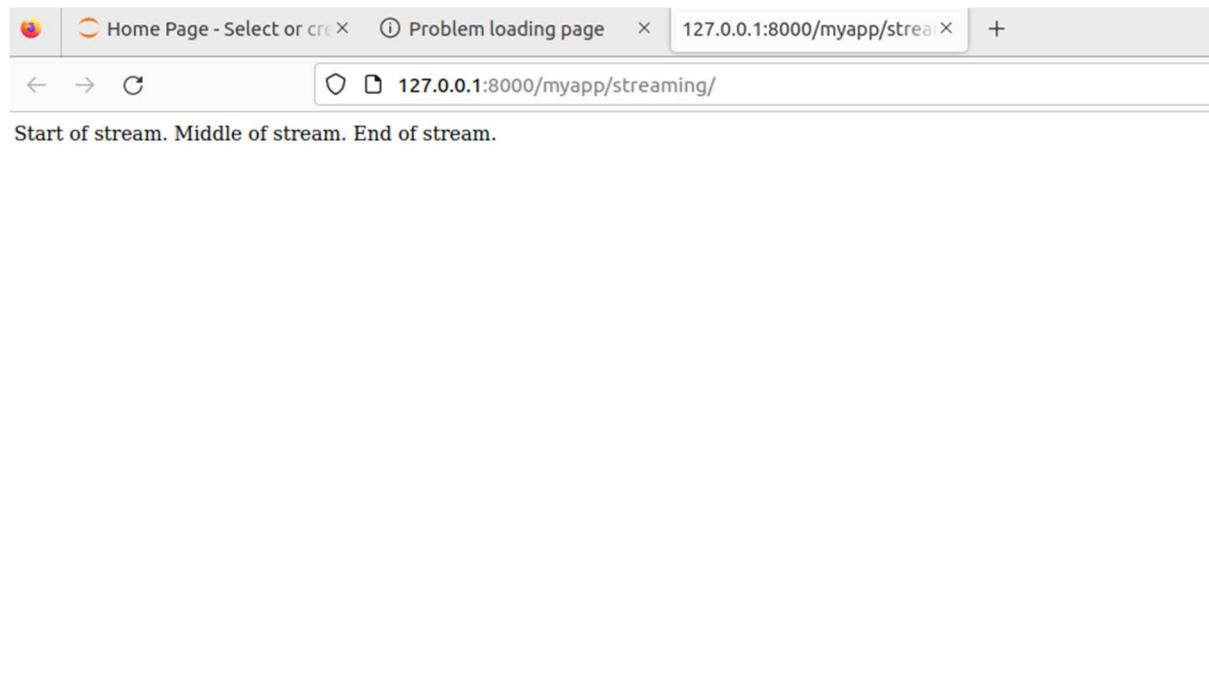

```
sebastian@sebastian-VirtualBox: ~/myproject
(base) sebastian@sebastian-VirtualBox:~/myproject$ cd myproject
(base) sebastian@sebastian-VirtualBox:~/myproject$ python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
January 21, 2024 - 16:04:23
Django version 5.0.1, using settings 'myproject.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

Not Found: /
[21/Jan/2024 16:05:04] "GET / HTTP/1.1" 404 2168
```

```
sebastian@sebastian-VirtualBox: ~/myproject
sebastian@sebastian-VirtualBox: ~/myproject$ http://127.0.0.1:8000/
bash: http://127.0.0.1:8000/: No such file or directory
(base) sebastian@sebastian-VirtualBox:~/myproject$ curl http://127.0.0.1:8000/myapp/simple/
<!DOCTYPE html>
<html lang="en">
<head>
    <meta http-equiv="content-type" content="text/html; charset=utf-8">
    <meta name="robots" content="NONE,NOARCHIVE">
    <title>AttributeError
        at /myapp/simple/</title>
    <style type="text/css">
        html * { padding:0; margin:0; }
        body * { padding:10px 20px; }
        body * * { padding:0; }
        body { font:small sans-serif; background-color:#fff; color:#000; }
        body>div { border-bottom:1px solid #ddd; }
        h1 { font-weight:normal; }
        h2 { margin-bottom:.8em; }
        h3 { margin:1em 0 .5em 0; }
        h4 { margin:0 0 .5em 0; font-weight: normal; }
        code, pre { font-size: 100%; white-space: pre-wrap; word-break: break-word; }
    >
    summary { cursor: pointer; }
```





A screenshot of a terminal window titled 'sebastian@sebastian-VirtualBox: ~/myproject'. The terminal shows the following command and its output:

```
curl http://127.0.0.1:8000/myapp/streaming/
Start of stream.
Middle of stream.
End of stream.
curl http://127.0.0.1:8000/myapp/file/
<!DOCTYPE html>
<html lang="en">
<head>
  <meta http-equiv="content-type" content="text/html; charset=utf-8">
  <meta name="robots" content="NONE,NOARCHIVE">
  <title>FileNotFoundException<br>at /myapp/file/</title>
  <style type="text/css">
    html * { padding:0; margin:0; }
    body * { padding:10px 20px; }
    body * * { padding:0; }
    body { font:small sans-serif; background-color:#fff; color:#000; }
    body>div { border-bottom:1px solid #ddd; }
    h1 { font-weight:normal; }
    h2 { margin-bottom:.8em; }
    h3 { margin:1em 0 .5em 0; }
```

A context menu is open over the terminal window, listing options: Open Link, Copy Link, Copy, Copy as HTML, Paste, Read-Only, Preferences, New Window, New Tab, and Show Menubar.

~/myproject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

/home/sebastian/myproject/myapp/urls.py

temp.py urls.py - myapp views.py urls.py - myproject

```
1 # myapp/urls.py
2 from django.urls import path
3 from .views import simple_response, streaming_response, file_response
4
5 urlpatterns = [
6     path('simp/', simple_response, name='simple_response'),
7     path('streaming/', streaming_response, name='streaming_response'),
8     path('file/', file_response, name='file_response'),
9 ]
```

myproject

- myapp
 - migrations
 - __init__.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - urls.py
 - views.py
- myproject
 - __init__.py
 - asgi.py
 - settings.py
 - urls.py
 - wsgi.py
- db.sqlite3
- manage.py

Source Console Object

Usage

Here you can get help of any object by pressing Ctrl+I in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our tutorial

Console I/O X

Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.

In [1]:

IPython Console History

~/myproject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

/home/sebastian/myproject/myapp/views.py

temp.py urls.py - myapp views.py urls.py - myproject

```
1 # myapp/views.py
2 from django.http import HttpResponseRedirect, JsonResponse, StreamingHttpResponse, FileResponse
3 from django.conf import settings
4 import os
5 import time
6
7 def simple_response(request):
8     # HttpResponseRedirect
9     response = HttpResponseRedirect("This is a simple HttpResponseRedirect")
10
11    # JsonResponse
12    json_data = {'message': 'This is a JsonResponse'}
13    json_response = JsonResponse(json_data)
14
15    return response, json_response
16
17 def streaming_response(request):
18    def generate_stream():
19        yield "Start of stream.\n"
20        time.sleep(1)
21        yield "Middle of stream.\n"
22        time.sleep(2)
23        yield "End of stream.\n"
24
25    return StreamingHttpResponse(generate_stream())
26
27 def file_response(request):
28    file_path = os.path.join(settings.BASE_DIR, 'path_to_your_file.txt')
29    return FileResponse(open(file_path, 'rb'))
```

myproject

- myapp
 - migrations
 - __init__.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - urls.py
 - views.py
- myproject
 - __init__.py
 - asgi.py
 - settings.py
 - urls.py
 - wsgi.py
- db.sqlite3
- manage.py

Source Console Object

Usage

Here you can get help of any object by pressing Ctrl+I in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our tutorial

Console I/O X

Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.

In [1]:

IPython Console History

~/myproject - Spyder (Python 3.11)

File Edit Search Source Run Debug Consoles Projects Tools View Help

/home/sebastian/myproject/myproject/urls.py

temp.py urls.py - myapp views.py urls.py - myproject

```
1 # myproject/urls.py
2 from django.contrib import admin
3 from django.urls import path, include
4
5 urlpatterns = [
6     path('admin/', admin.site.urls),
7     path('myapp/', include('myapp.urls')),
8 ]
```

myproject

- myapp
 - migrations
 - __init__.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - urls.py
 - views.py
- myproject
 - __init__.py
 - asgi.py
 - settings.py
 - urls.py
 - wsgi.py
- db.sqlite3
- manage.py

Source Console Object

Usage

Here you can get help of any object by pressing Ctrl+I in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in Preferences > Help.

New to Spyder? Read our tutorial

Console I/O X

Python 3.11.5 (main, Sep 11 2023, 13:54:46) [GCC 11.2.0]
Type "copyright", "credits" or "license" for more information.
IPython 8.15.0 -- An enhanced Interactive Python.

In [1]:

IPython Console History