



# Python Django Handling Custom Error Page

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To handle error reporting in Django, you can utilize Django's built-in form validation mechanisms and Django's error handling capabilities. In this article, I'll demonstrate how to implement error handling. If there are errors in the form submission, the user will be notified of the errors.

## Required Modules

- [Install Django](#)
- [Create Virtual Env](#)

## Python Django Handling Custom Error Page

To start the project use this command

```
django-admin startproject queryexpressionsproject  
cd my_app
```

To start the app use this command

```
python manage.py startapp app
```

Now add this app to the 'settings.py'

```
# Application definition

INSTALLED_APPS = [
    'app',
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
]
```

## Setting up the Django Files

**views.py:** This code defines three view functions for a Django web application:

- **home(request):** Returns a "Hello, World!" response for the root URL.
- **error\_404(request, exception):** Handles HTTP 404 errors (Not Found) and renders a 404 template.
- **error\_500(request):** Handles HTTP 500 errors (Internal Server Error) and renders a 500 template (though there's a potential typo in the template name).

### Python3



```
1  from django.http import HttpResponseRedirect
2  from django.shortcuts import redirect, render
3  from django.db import models
4  from .models import Product
5
6
7  def home(request):
8      return HttpResponseRedirect('Hello, World!')
9
10
11 def error_404(request, exception):
12
13     return render(request, 'myapp/error_404.html',
14                   status=404)
```

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```
15 def error_500(request):
16     return render(request, 'myapp/error_505.html',
    status=500)
```

## Setting Up GUI

### 404.html

Create custom error HTML templates in the templates directory of your app. In this case, let's create error\_404.html

#### HTML



```
1 <!-- error_404.html -->
2 <!DOCTYPE html>
3 <html>
4 <head>
5     <title>404 Error</title>
6 </head>
7 <body>
8     <h1>Page Not Found (404)</h1>
9     <p>The requested page does not exist.</p>
10 </body>
11 </html>
```

### 505.html

Create custom error HTML templates in the templates directory of your app. In this case, let's create error\_505.html

#### HTML



```
1 <!-- error_500.html -->
2 <!DOCTYPE html>
3 <html>
4 <head>
5     <title>500 Error</title>
6 </head>
7 <body>
8     <h1>Server Error (500)</h1>
9     <p>Oops! Something went wrong on the server.</p>
10 </body>
11 </html>
```

**app/urls.py:** This file is used to define the URLs inside the app.

#### Python3



```
1 from django.urls import path
2 from . import views
3
4 urlpatterns = [
5     path('hello/', views.home, name='home'),
```

```
7 ]
```

**urls.py:** We set handler404 and handler500 to the custom error view functions we defined earlier (error\_404 and error\_500). Now, when a 404 or 500 error occurs in your Django project, Django will use the custom error views and render the corresponding custom error pages you've defined.

### Python3

```
1 from django.contrib import admin
2 from django.urls import path, include
3
4 # Custom 404 error view
5 handler404 = 'my_app.views.error_404'
6 # Custom 500 error view
7 handler500 = 'my_app.views.error_500'
8
9 urlpatterns = [
10     path('admin/', admin.site.urls),
11     path('', include('my_app.urls')),
12 ]
```

### Things to Remember

If you're seeing the default Django 404 page instead of your custom error\_404.html template, it could be due to a few reasons. To ensure your custom 404 error page is displayed, please check the following:

**Template Location:** Verify that your error\_404.html template is placed in the correct directory structure within your app's templates. The correct path should be products/templates/products/error\_404.html. Ensure that the template file name and location are spelled correctly and match the app's name.

**App Name:** Confirm that the name of your app is indeed "products" as it appears in the template path and in the handler404 setting.

**Case Sensitivity:** Ensure that the file and directory names in your file system are using the correct case sensitivity. On some systems, file and directory names are case-sensitive, so make sure they match exactly.

**Restart Server:** After adding or modifying template files, sometimes you may need to restart your development server for changes to take effect. Stop the server (Ctrl+C) and then start it again with **python manage.py runserver**.

**Debug Mode:** The message you provided suggests that you are running your project in Debug mode (DEBUG = True in your Django settings). In Debug mode, Django might still display its default error pages. Custom error pages are typically shown when DEBUG is set to False in your settings.

```
# SECURITY WARNING: don't run with debug turned on in production!
DEBUG = False

ALLOWED_HOSTS = ['127.0.0.1']
```

## Deployment of the Project

Run these commands to apply the migrations:

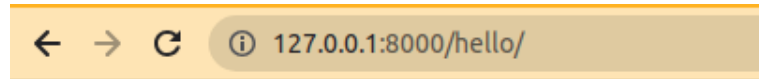
```
python3 manage.py makemigrations
python3 manage.py migrate
```

Run the server with the help of following command:

**python3 manage.py runserver**

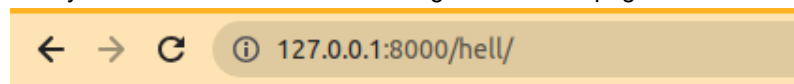
**Output**

As you can see that if we write correct URLs we can see the hello world page.



Hello, World!

Now you can see that we written wrong url and error page occurred.



## Server Error (500)

Oops! Something went wrong on the server.

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