

Let's Build

# URL Shortener App

## Using Django



# Introduction

In this post, we are going to build a simple URL Shortener application using django and pyshortener package, that will going to short the long urls, so let's dive into it.

# Installation

We need to install these two dependencies to start with this project :



```
pip install django pyshorteners
```

# Setup Django Project

First, let's create a setup a simple django project by following these instructions :

Let's create a django project i am giving a project name ` urlshortener` .

```
django-admin startproject urlshortener
```

Now just move to urlshortener folder and let's create a app i am giving a app name ` main` .

```
python manage.py startapp main
```

# Register your app

Simply go to your settings.py file and under INSTALLED\_APPS, just register our app

```
INSTALLED_APPS = [  
    ...  
    'main.apps.MainConfig'  
    ...  
]
```

# Templates Code

Open templates file and let's write the UI code

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
  </head>
  <body class="bg-light">
    <div class="container" style="width: 40%;margin-top: 5rem;">
      <!-- Flash Message -->
      <div class="p-5 text-center shadow bg-white" style="border-radius: 15px;">
        {% if messages %}
          {% for message in messages %}
            <div class="alert alert-success text-center fs-5">
              {{message}}
            </div>
          {% endfor %}
          {% endif %}
        </div>
      <!-- Url Shortener Form -->
      <h1>URL Shorter Application</h1>
      <div class="mt-5">
        <form action="" method="post">
          {% csrf_token %}
          <input type="url" name="url" value="{{url}}" required class="form-control py-3" placeholder="Enter long link here">
          <div class="mt-3 d-grid">
            <button class="btn btn-primary p-3 fs-4 text-white">Shorten url<button/>
          </div>
        </form>
      </div>
      <!-- Result Container -->
      {% if messages %}
        <div class="mt-5 bg-white border p-3 shadow" style="border-radius: 15px;">
          <div class="d-flex align-items-center justify-content-between">
            <span id="short-url" class="fs-5">{{short_url}}
          </div>
        </div>
        <div class="mt-3">
          <a href="" class="btn btn-success btn-sm fs-6">Shorten Another</a>
        </div>
      {% endif %}
    </div>
    <!-- Javascript Code -->
    <script>
      const copy_url = ()=>{
        const short_url = document.getElementById("short-url").innerText
        navigator.clipboard.writeText(short_url);
      }
    </script>
  </body>
</html>
```

# View Code

Open views.py file and let's write the implementation of url shortener

```
from django.shortcuts import render
import pyshorteners
from django.contrib import messages

def url_shortener(request):
    short_url = ""
    url = ""
    if request.method == "POST":
        shortener = pyshorteners.Shortener()
        url = request.POST.get("url")
        short_url = shortener.tinyurl.short(url)
        messages.success(request, "Generated")
    context = {"short_url": short_url, "url": url}
    return render(request, "url-shortener.html", context)
```

Open urls.py file and url for this view function

```
from .views import url_shortener
from django.urls import path

urlpatterns = [
    path("", url_shortener, name="url-shortener"),
]
```

# Final output

Generated

## URL Shorter Application

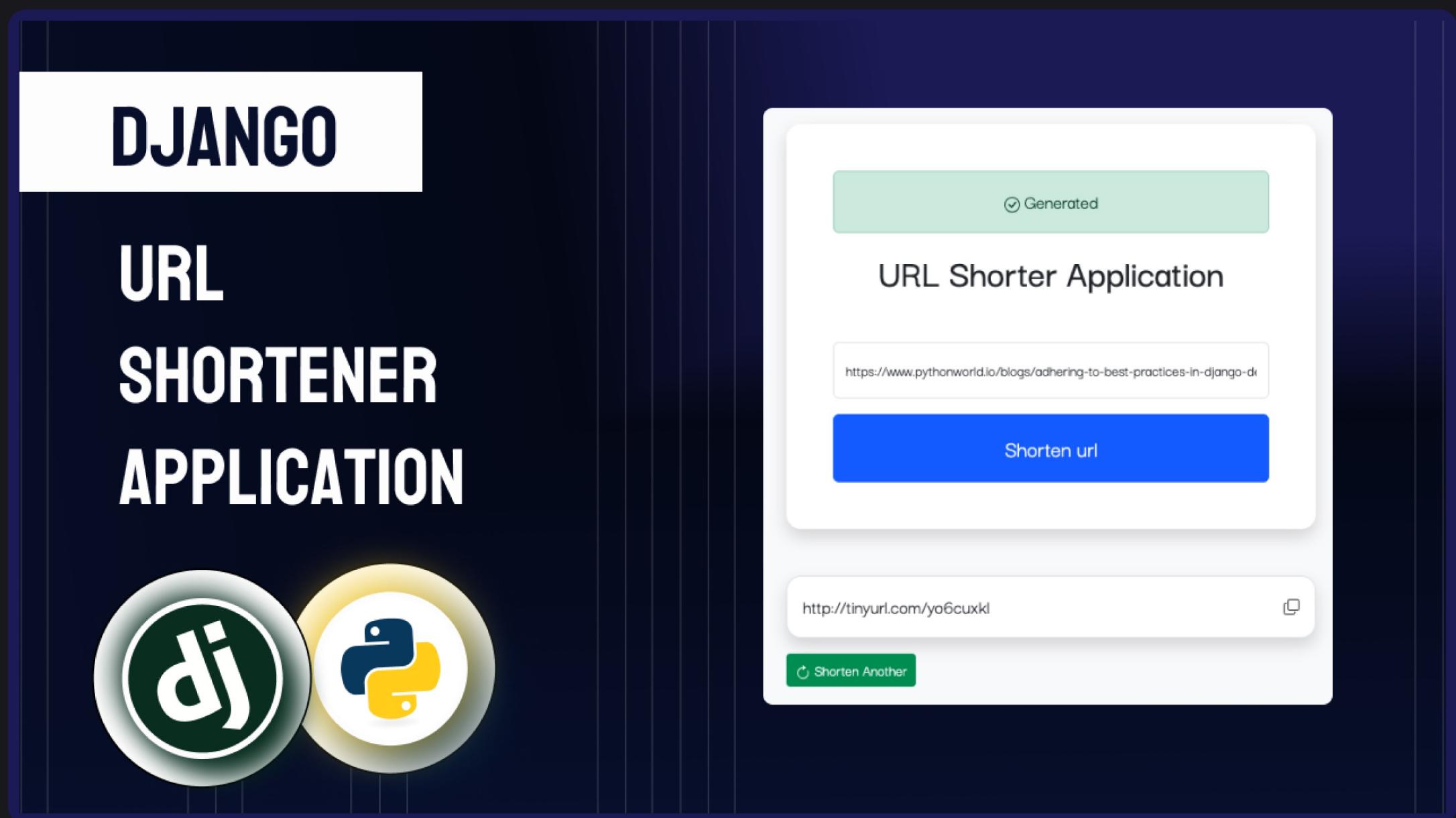
<https://www.pythonworld.io/blogs/adhering-to-best-practices-in-django-d>

Shorten url

<http://tinyurl.com/yo6cuxkl> 

 Shorten Another

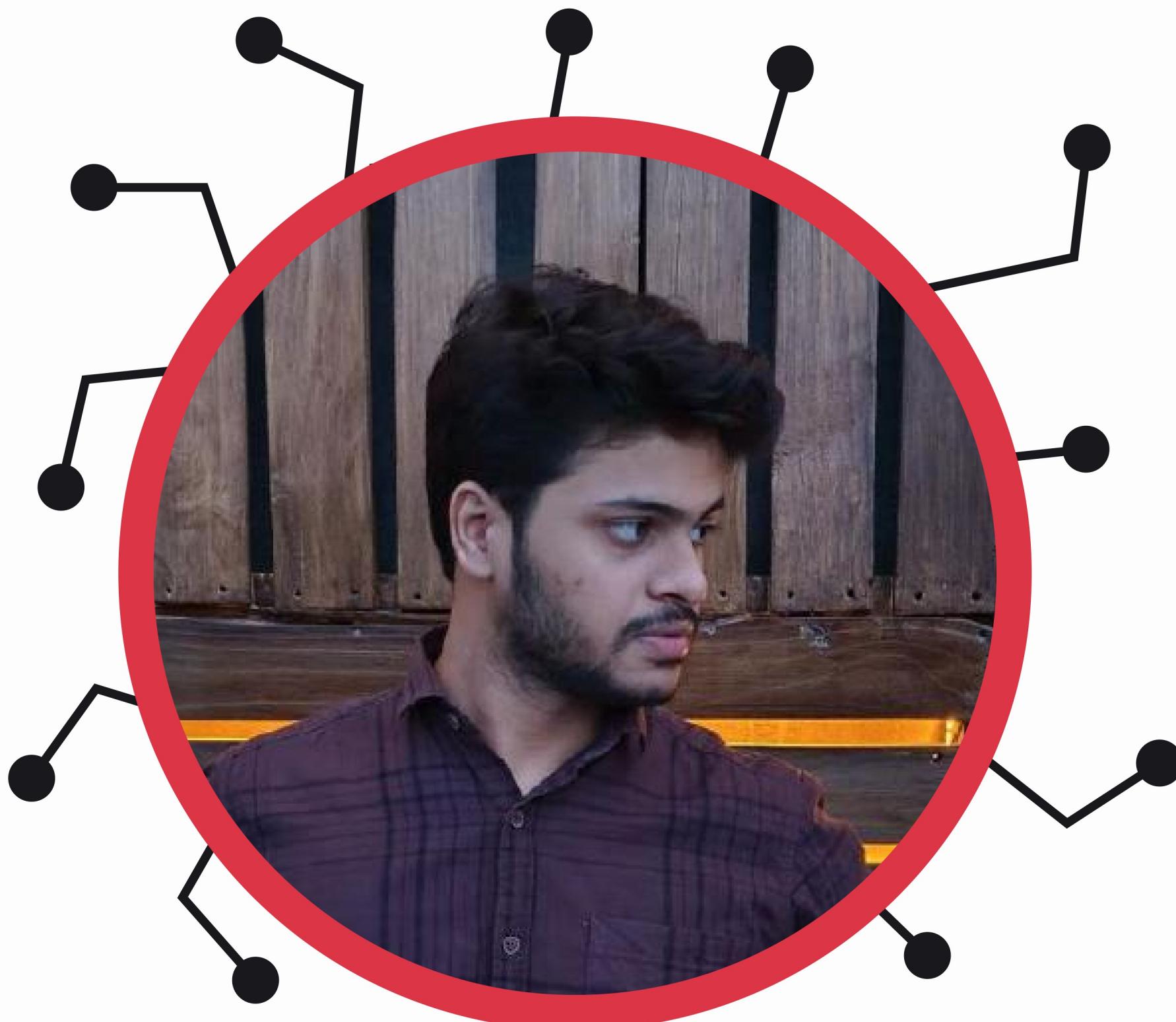
Find out complete  
tutorial on this on my  
youtube channel



Link in bio

# DID YOU FIND THIS HELPFUL

Let me know in the comment



Aashish Kumar

Software Engineer

Follow for more ❤