

## Step 1: Set Up the Django Project

1. **Install Django** (if not already installed):

```
pip install django
```

2. **Create a Django Project:**

```
django-admin startproject myproject  
cd myproject
```

3. **Create a Django App:**

```
python manage.py startapp myapp
```

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## Step 2: Configure the Project

1. **Add the App to `INSTALLED_APPS`**: Open `myproject/settings.py` and add `'myapp'` to the `INSTALLED_APPS` list:

```
INSTALLED_APPS = [  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
    'myapp', # Add your app here  
]
```

2. **Configure URLs**: Open `myproject/urls.py` and include the URLs for your app:

```
from django.contrib import admin  
from django.urls import path, include  
  
urlpatterns = [  
    path('admin/', admin.site.urls),  
    path('', include('myapp.urls')), # Include myapp URLs  
]
```

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## Step 3: Create Views and URLs for the App

1. **Create a View**: Open `myapp/views.py` and define a view function:

```
from django.shortcuts import render  
from django.http import HttpResponse  
  
def home(request):  
    return HttpResponse("Hello, Django! Welcome to my first app.")
```

2. **Define URLs for the App:** Create a new file `myapp/urls.py` and add the following code:

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

urlpatterns = [
    path('', views.home, name='home'), # Map the root URL to the home view
]
```

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## Step 4: Add HTML Templates

1. **Create a Templates Directory:** Inside the `myapp` directory, create a folder named `templates`. Inside the `templates` folder, create another folder named `myapp` (to follow Django's template naming conventions).

The structure should look like this:

```
myapp/
├── templates/
│   └── myapp/
│       └── home.html
```

2. **Create an HTML Template:** Inside `myapp/templates/myapp/`, create a file named `home.html` and add the following code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Welcome to My Django App</title>
</head>
<body>
    <h1>Hello, Django!</h1>
    <p>Welcome to my first Django application.</p>
</body>
</html>
```

3. **Update the View to Render the Template:** Modify the `home` view in `myapp/views.py` to render the HTML template:

```
from django.shortcuts import render

def home(request):
    return render(request, 'myapp/home.html')
```

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## Step 5: Run the Development Server

1. **Migrate the Database** (optional for this basic app):

```
python manage.py migrate
```

2. **Run the Server:**

```
python manage.py runserver
```

3. **Access the Application:** Open your browser and go to `http://127.0.0.1:8000/`. You should see the HTML page with the message:

```
Hello, Django!  
Welcome to my first Django application.
```

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## Step 6: Add Static Files (Optional)

If you want to add CSS, JavaScript, or images, follow these steps:

1. **Create a Static Directory:** Inside the `myapp` directory, create a folder named `static`. Inside the `static` folder, create another folder named `myapp` (to follow Django's static file naming conventions).

The structure should look like this:

```
myapp/  
├─ static/  
│   └─ myapp/  
│       └─ styles.css
```

2. **Add a CSS File:** Inside `myapp/static/myapp/`, create a file named `styles.css` and add some basic styles:

```
body {  
    font-family: Arial, sans-serif;  
    background-color: #f4f4f4;  
    color: #333;  
    text-align: center;  
    padding: 50px;  
}  
  
h1 {  
    color: #007BFF;  
}
```

3. **Link the CSS File in the Template:** Update `myapp/templates/myapp/home.html` to include the CSS file:

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
    <meta charset="UTF-8">  
    <meta name="viewport" content="width=device-width, initial-scale=1.0">  
    <title>Welcome to My Django App</title>  
    {% load static %}
```

```
<link rel="stylesheet" href="{% static 'myapp/styles.css' %}">
</head>
<body>
  <h1>Hello, Django!</h1>
  <p>Welcome to my first Django application.</p>
</body>
</html>
```

4. **Restart the Server:** Refresh the page in your browser to see the updated styles.

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## Final Project Structure

```
myproject/
├── myproject/
│   ├── __init__.py
│   ├── settings.py
│   ├── urls.py
│   ├── wsgi.py
│   └── asgi.py
├── myapp/
│   ├── migrations/
│   ├── __init__.py
│   ├── admin.py
│   ├── apps.py
│   ├── models.py
│   ├── tests.py
│   ├── views.py
│   ├── urls.py
│   ├── templates/
│   │   └── myapp/
│   │       └── home.html
│   └── static/
│       └── myapp/
│           └── styles.css
└── manage.py
```

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## Summary

- You created a Django project and app.
- You configured URLs and views.
- You added an HTML template and optional static files.
- You ran the development server and viewed the application in the browser.

This is a great starting point for building more complex Django applications!