

Installing some prerequisites

we're going to use **setuptools** to build our package
pip install setuptools

Packaging your app

Why Make an App Reusable?

- Saves time in future projects.
- Easier to share with others or publish on PyPI.
- Common practice in Python & Django communities.

◆ Step 1: Project Structure Before Packaging

```
django tutorial/  
├── mysite/  
│   ├── settings.py, urls.py ...  
│   └── polls/  
│       ├── __init__.py, admin.py, apps.py, models.py, views.py,  
│       │   urls.py  
│       ├── migrations/  
│       ├── templates/polls/  
│       ├── static/polls/  
│       └── tests.py
```

◆ Step 2: Move and Rename the App

1. Create a folder **django-polls/** outside your project.
2. Move **polls/** into it and rename it to **django_polls/**.

◆ Step 3: Update **apps.py**

```
class PollsConfig(AppConfig):
```

```
default_auto_field = "django.db.models.BigAutoField"
name = "django_polls"
label = "polls"
```

◆ Step 4: Create Required Files

 **README.rst**

Basic instructions on how to install and use the app.

 **LICENSE**

Add a license (e.g., BSD).

 **pyproject.toml**

```
[build-system]
requires = ["setuptools>=69.3"]
build-backend = "setuptools.build_meta"

[project]
name = "django-polls"
version = "0.1"
description = "A Django app to conduct web-based polls."
readme = "README.rst"
requires-python = ">=3.10"
dependencies = ["django>=4.2"]
authors = [{"name = "Your Name", email = "you@example.com"}]
```

 **MANIFEST.in**

```
recursive-include django_polls/static *
recursive-include django_polls/templates *
```

◆ Step 5: Build the Package

```
pip install build
cd django-polls/
python -m build
```

This generates:

- `dist/django_polls-0.1.tar.gz`
 - `dist/django_polls-0.1-py3-none-any.whl`
-

◆ Step 6: Install and Use in a Project

```
python -m pip install --user dist/django_polls-0.1.tar.gz
```

In `settings.py`:

```
INSTALLED_APPS = [  
    "django_polls.apps.PollsConfig",  
    ...  
]
```

In `urls.py`:

```
from django.urls import include, path  
  
urlpatterns = [  
    path("polls/", include("django_polls.urls")),  
]
```

◆ Step 7: Publish (Optional)

- Share `.tar.gz` file
 - Upload to PyPI: <https://packaging.python.org>
-

◆ Bonus: Use Virtual Environment

bash

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```
python -m venv env
```

```
source env/bin/activate # Linux/macOS
```

```
env\Scripts\activate    # Windows
```

Then install package safely inside the venv.

 **Final Tip: Make sure your app is fully self-contained:**

- All templates in `templates/polls/`
- All static files in `static/polls/`
- All views, models, tests inside `django_polls/`