Django Project Setup Guide on Windows 11

# 1. Install Python

Check if Python is installed:  
 python --version  
  
If not, download and install it from https://www.python.org/downloads/windows/  
Ensure you check 'Add Python to PATH' during installation.

# 2. Create a Virtual Environment

In your project directory:  
 python -m venv venv  
  
This will create a virtual environment in a folder named 'venv'.

# 3. Activate the Virtual Environment

In Command Prompt:  
 venv\Scripts\activate  
  
Your terminal should now show (venv) prefix.

# 4. Install Django and Dependencies

If you have a requirements.txt:  
 pip install -r requirements.txt  
  
Otherwise install manually:  
 pip install django psycopg2

# 5. Configure PostgreSQL

1. Install PostgreSQL from https://www.postgresql.org/download/windows/  
2. Create a database and user using pgAdmin or CLI.  
3. Update your settings.py DATABASES config:  
  
DATABASES = {  
 'default': {  
 'ENGINE': 'django.db.backends.postgresql',  
 'NAME': 'your\_db\_name',  
 'USER': 'your\_user',  
 'PASSWORD': 'your\_password',  
 'HOST': 'localhost',  
 'PORT': '5432',  
 }  
}

# 6. Run Migrations

Run the following commands:  
 python manage.py makemigrations  
 python manage.py migrate

# 7. Create Superuser

Run:  
 python manage.py createsuperuser  
Follow the prompts to create an admin user.

# 8. Run the Development Server

Start the server:  
 python manage.py runserver  
Then visit http://127.0.0.1:8000/ in your browser.

# 9. Access Admin

Visit http://127.0.0.1:8000/admin/ and login with your superuser credentials.

# 10. Notes

- Reactivate venv every terminal session  
- Use a .env file for sensitive settings (optional)  
- Use 'collectstatic' for static files in production