

# Django vs Flask – Detailed Comparison with Commands

## 1. Core Philosophy

Aspect	Django	Flask
Definition	High-level full-stack framework	Lightweight micro-framework
Philosophy	Batteries included	Only core, add what you need
Best For	Large, data-driven applications	APIs & small projects

## 2. Installation & Project Creation

Task	Django	Flask
Install	pip install django	pip install flask
Create Project	django-admin startproject mysite	Manual file creation
Run Server	python manage.py runserver	flask run

## 3. Project Structure

Aspect	Django	Flask
Structure Type	Strict & predefined	Flexible
Main Files	settings.py, urls.py, manage.py	app.py / main.py
App Concept	Multiple apps	Single or blueprints

## 4. URL Routing & Views

Aspect	Django	Flask
Routing Syntax	path('home/', views.home)	@app.route('/home')
View Type	Function / Class-based	Function-based
Request Object	HttpRequest	request

## 5. Rendering HTML Pages

Task	Django Command	Flask Command
Render Template	return render(request, 'index.html')	return render_template('index.html')
Pass Data	render(request,'x.html',{'a':1})	render_template('x.html', a=1)

## 6. Template Engines

Aspect	Django	Flask
Engine	Django Template Language (DTL)	Jinja2
Syntax Example	{{ variable }} {{ for %}}	{{ variable }} {{ for %}}

## 7. Database & ORM

Aspect	Django	Flask
ORM	Built-in ORM	SQLAlchemy
Default DB	SQLite	None
Model File	models.py	models.py (manual)

## 8. Database Migrations

Task	Django	Flask
Create Migration	python manage.py makemigrations	flask db migrate
Apply Migration	python manage.py migrate	flask db upgrade

## 9. Forms & Validation

Aspect	Django	Flask
Form Handling	Django Forms	WTForms
Validation	Automatic	Manual

## 10. Authentication & Admin Panel

Aspect	Django	Flask
Auth System	Built-in	Extensions
Admin Panel	Automatic	Not available

## 11. Security Features

Aspect	Django	Flask
CSRF	Enabled by default	Needs Flask-WTF
Sessions	Built-in	Extension based

## 12. Keywords & Important Functions

Category	Django	Flask
Keywords	models, views, urls	route, request, jsonify
Functions	render(), redirect()	render_template(), url_for()

## 13. Learning Curve

Aspect	Django	Flask
Difficulty	Moderate	Easy
Time to Build App	More initial setup	Very fast