

# Django Backend — Setup & Run Guide

## ■ 1. Install Python (REQUIRED)

Download Python from the official website:

<https://www.python.org/downloads/>

Download Python 3.10 or newer.

IMPORTANT (Windows): Check the box “Add Python to PATH”, then click Install.

Verify installation:

```
python --version
```

```
python3 --version
```

## ■ 2. Go to the backend folder

All commands must be run inside the backend/ folder (where manage.py is located).

```
cd backend
```

## ■ 3. Install required Python packages

Required packages:

Django, Django REST Framework, django-cors-headers

```
pip install django djangorestframework django-cors-headers
```

If pip does not work:

```
pip3 install django djangorestframework django-cors-headers
```

## ■■ 4. Database setup (first run)

Create migrations:

```
python manage.py makemigrations
```

Apply migrations:

```
python manage.py migrate
```

This will create the SQLite database file (db.sqlite3).

## ■ 5. Populate the database with test data

This project includes a custom Django command:

```
api/management/commands/seed_data.py
```

Run the seed script:

```
python manage.py seed_data
```

This will create test users & drivers, trucks, missions, fuel entries, and notifications.

## ■ 6. Create an admin user (optional but recommended)

This allows access to the Django admin interface to inspect the database.

```
python manage.py createsuperuser
```

The superuser created here is used to log into the admin panel.

## ■■ 7. Start the Django server

Local development:

```
python manage.py runserver
```

Server URL:

```
http://127.0.0.1:8000/
```

Mobile / network access:

```
python manage.py runserver 0.0.0.0:8000
```

Example access URL:

```
http://192.168.3.50:8000/
```

## ■■ 8. Check the database (IMPORTANT)

To view and manage the database content, open the Django admin panel. Use the superuser account created earlier to log in.

Admin panel URL:

```
http://127.0.0.1:8000/admin/
```