

Multi-Tenant Ordering System

Overview:

Build a Django-based multi-tenant application where each company manages its own orders and products.

Implement soft-deletion and enforce appropriate access controls.

Baseline Requirements

Data Models:

Company:

- name

Extend User Class:

- Belongs to exactly one Company

- Role: admin | operator | viewer

Product:

- company, name, price, stock
- created_by, created_at (immutable)
- last_updated_at
- is_active

Order:

- company (inferred via user)
- product, quantity
- created_by, created_at (immutable)
- status (pending, success, failed)
- shipped_at (set when status = success)

URLs & Views:

Pages:

- / – index page

APIs:

- GET /api/products/ – List active products for the user's company
- POST /api/orders/ – Create one or more orders
- DELETE /api/products/ – Soft-delete one or more products
- GET /api/orders/export/ – Export company's orders (CSV)

Data Isolation

Data is scoped to the authenticated user's Company.

Django Admin:

Products Admin:

- Bulk action: mark selected products inactive

Orders Admin:

- Action: export orders as CSV

Simple HTML Interface (index page):

Product creation form (auto-fill company, user, timestamp)

Below the form, a table listing added products

Constraints:

- Orders may include only products where is_active = True.
- Prevent order creation if requested quantity exceeds available stock.
- viewer users cannot place orders.
- operator users may edit only orders created today.
- On order success simulate send a confirmation email to the order's creator by logging to file with appropriate details.

Tech Stack:

project is fully dockerized

- mysql 5.7
- django 4.x.X
- python 3.10 or up

- use any extra packages needed
- serve the application on 0.0.0.0

Deliverables:

A GitHub repository or ZIP of the Django project
README with setup & run instructions
add demo data for testing