

Task: Ecommerce API

You are tasked with building an **Ecommerce API** using Python Django. The API should include essential features like JWT authentication, file upload, email notifications, list filtering, serializer validations, and pagination. Additionally, you will be responsible for deploying the project on **PythonAnywhere** after completing the development phase.

Admin Functionalities:

- Admin Authentication:
 - Admins should be able to log in using JWT authentication to access the admin dashboard.
 - Use email & password for user authentication.
- Product Management:
 - Admins can perform CRUD operations for products, including adding new products, updating product details, and deleting products.
 - Each product should have attributes such as name, description, price, quantity, and image upload.
- Order Management:
 - Admins should have access to a list of all orders placed on the platform.
 - They can view order details, including customer information, products in the order, and the total amount.
 - Provide functionality to update the order status (e.g., processing, shipped, delivered).
- User Management:
 - Admins can view and manage registered users.
 - They can view user details, such as name, email, and registration date.
 - Option to deactivate or delete user accounts if necessary.
- Category Management:
 - Allow admins to manage product categories, including adding new categories and updating existing ones.
 - Each product should belong to one or more categories.
- Email Notifications:
 - Provide the ability for admins to send custom email notifications to users (e.g., order updates, promotional emails).

User Functionalities:

- User Registration and Authentication:
 - Users can register for an account and log in using JWT authentication.
 - Users can reset their passwords through email verification if they forget their credentials.
 - Users should receive a welcome email upon registration.
- Product Listing and Filtering:
 - Users can view the list of available products on the platform.
 - Implement filtering options based on categories, price ranges, and other relevant attributes.
- Product Details:
 - Users can view detailed information about a specific product, including its description and image.

- Shopping Cart:
 - Users can add products to their shopping cart and specify the quantity they want to purchase.
 - They can view the contents of their cart and update quantities or remove products.
- Order Placement:
 - Users can place an order for the items in their shopping cart.
 - After successful order placement, users & admins should receive an email notification with the order details.
- Order History:
 - Users can view their order history, including details of past orders they've placed on the platform.
- Pagination:
 - Implement pagination for product listing and order history to display a limited number of items per page.

Deployment on PythonAnywhere:

Once the Admin and User functionalities are implemented and thoroughly tested, deploy the E-commerce Platform API on PythonAnywhere. Ensure that all features are functional and the deployed API is accessible.

Remember to plan the project well, break down tasks into manageable chunks, and work methodically to meet the two-week deadline. Good luck!

Additional Test Cases:

- Any change in product pricing shouldn't affect already created orders but the items in the cart.
- Order details should include the individual prices of products as well as the total amount.
- Normal users shouldn't be able to access admin APIs
- Email notifications must be HTML formatted.