

Task 1: E-commerce Platform with Real-Time Notifications

Create a Django application to manage a simple e-commerce platform in which

- admin will create product
- display products to user from where they can buy product
- The application should include real-time notifications using WebSockets.

Create a model Product with the following fields:

- Name (CharField)
- Description (TextField)
- Price (DecimalField)
- Stock (IntegerField)

Create a model Order with the following fields:

- Product (ForeignKey to Product)
- Quantity (IntegerField)
- Total Price (DecimalField)
- Status (CharField with choices: 'Pending', 'Completed', 'Failed')

Create a model Payment with the following fields:

- Order (ForeignKey to Order)
- Payment ID (CharField)
- Status (CharField with choices: 'Initiated', 'Success', 'Failure')
- Payment Date (DateTimeField)

Use REST API for

- List all products
- View details of a specific product
- Create an order
- View order status

WebSocket Integration

- Use Django Channels to set up WebSocket support in your project.
- Create a WebSocket consumer to handle chat messages between user and admin

Real-Time Notifications

Implement a feature to send real-time notifications to users when the status of their order changes (e.g., from 'Pending' to 'Completed').