

# E-Commerce Furniture Project

This project is an e-commerce platform that sells trendy, Pinterest-inspired, and affordable furniture. The website is built using **Next.js 14** and **TypeScript** and integrates **Sanity** for data management. The system supports both **user** and **admin** functionalities, including managing products, tracking shipments, placing orders, and more.

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## API Specification

This document outlines the API specifications for the project. The system includes the following key APIs:

**Products API:** For retrieving product data.

**Shipment API:** For managing shipments, including shipment creation, tracking, and live updates.

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### 1. Products API

**Endpoint:** `/api/products`

**Method:** GET

This endpoint retrieves a list of products available for sale.

#### Request

**No request body** is required for this endpoint.

#### Response

The response will return a list of products, each containing details like the product's name, description, price, stock quantity, and image.

```
[
  {
    "id": "123",
    "name": "Modern Sofa",
    "description": "A stylish, modern sofa for your living room.",
    "price": 599.99,
    "image": "https://example.com/images/sofa.jpg",
    "category": "Sofas",
    "stock": 50
  },
  ...
]
```

## 2. Shipment API

**My Endpoint:** `/api/shipmentOrder`

*(This endpoint will call `/api/shipments/`)*

**Shippo Endpoint:** `/api/shipments/`

**Method:** POST

This endpoint creates a shipment and retrieves the shipment tracking number.

### Request

The request body should include details about the recipient and shipment, such as the recipient's name, address, weight, and product ID.

```
{
  "sender": {
    "name": "E-commerce Store",
    "street1": "123 Store Lane",
    "city": "San Francisco",
    "state": "CA",
    "zip": "94107",
    "country": "US"
  },
  "recipient": {
    "name": "John Doe",
    "street1": "456 User Street",
    "city": "New York",
    "state": "NY",
    "zip": "10001",
    "country": "US"
  },
  "package": {
    "length": "10",
    "width": "10",
    "height": "10",
    "distance_unit": "in",
    "weight": "5",
    "mass_unit": "lb"
  }
}
```

### Response

The response will include the tracking number and additional shipment information, such as the carrier and estimated arrival time (ETA).

```
{
  "shipmentId": "987",
  "trackingNumber": "1234567890",
  "carrier": "shippo",
  "eta": "2025-01-18T10:00:00Z",
  "status": "In Transit"
}
```

## My Endpoint: /api/liveTracking

*(This endpoint will call /api/tracks/{carrier}/{trackingNumber})*

## Shippo Endpoint: /api/tracks/{carrier}/{trackingNumber}

### Method: GET

This endpoint fetches live tracking details for a shipment using the tracking number.

### Request

### URL Parameters:

**carrier:** The name of the shipping carrier (e.g., shippo).

**trackingNumber:** The tracking number obtained from the /api/shipments/ endpoint.

### Response

The response will contain the live tracking information, including the ETA, tracking history, status, and location.

```
{
  "trackingNumber": "1234567890",
  "carrier": "shippo",
  "eta": "2025-01-18T10:00:00Z",
  "status": "In Transit",
  "trackingHistory": [
    {
      "date": "2025-01-16T10:00:00Z",
      "location": "New York, NY",
      "status": "Shipped"
    },
    {
      "date": "2025-01-17T14:00:00Z",
      "location": "Philadelphia, PA",
      "status": "In Transit"
    }
  ],
  "origin": {
    "city": "New York",
    "country": "US"
  },
  "destination": {
    "city": "Los Angeles",
    "country": "US"
  }
}
```

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## Summary of APIs

**/api/products:** Fetches product details.

**/api/shipments/:** Creates a shipment and retrieves a tracking number.

**/api/tracks/{carrier}/{trackingNumber}**: Fetches live tracking details for the shipment.

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This document provides a detailed outline of the APIs used in the E-Commerce Furniture Project. These APIs ensure smooth operations for managing products, processing shipments, and providing real-time tracking updates to customers.

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