Project: E-commerce Management System

Build a REST API to manage products and orders within an eCommerce system. This API should handle CRUD operations for both entities and establish relationships between products and orders.

The project is structured with Express and Mongoose, organized into Routes, Controllers, and Services layers.

Products:
- POST /products - Create a new product
- GET /products - Get all products
- GET /products/:id - Get a specific product by ID
- PUT /products/:id - Update a product by ID
- DELETE /products/:id - Delete a product by ID

Orders:
- POST /orders - Create a new order (should reference product IDs)
- GET /orders - Get all orders
- GET /orders/:id - Get a specific order by ID (with product details populated)
- PUT /orders/:id - Update an order by ID
- DELETE /orders/:id - Delete an order by ID

Note: Make an initial database schema that illustrates how your data should be organized in your database illustrating the different used collections alongside their corresponding properties. You can use tools like Lucidchart or Excalidraw for that. Your REST API should be tested with Postman.

An example of a database schema should be like this:

Book

+ title: String
+ author: Author[1]
+ summary: String
+ ISBN: String
+ genre: Genre[0..*]

+ url: String

Author

+ first_name: String
+ family_name: String
+ date_of_birth: Date
+ date_of_death: Date

+ name: String
+ lifespan: String
+ url: String

BookInstance

+ book: Book
+ imprint: String
+ status: enum
+ due_back: Date

+ url: String

Genre

+ name: String

+ url: String

1..*   1

0..*

1

0..*

0..*