CN Kart Application

Problem Statement:

Building an application called **CNKart** consisting of three microservices: Order Service, Item Service, and Inventory Service. The application aims to manage customer orders, product items, and inventory.

1. **Item:** It manages items for the application and provides APIs for getting and creating items.
2. **Order:** It manages customer orders and provides APIs for placing orders.
3. **Inventory:** It keeps track of items and their quantities, providing API for checking an item's availability.
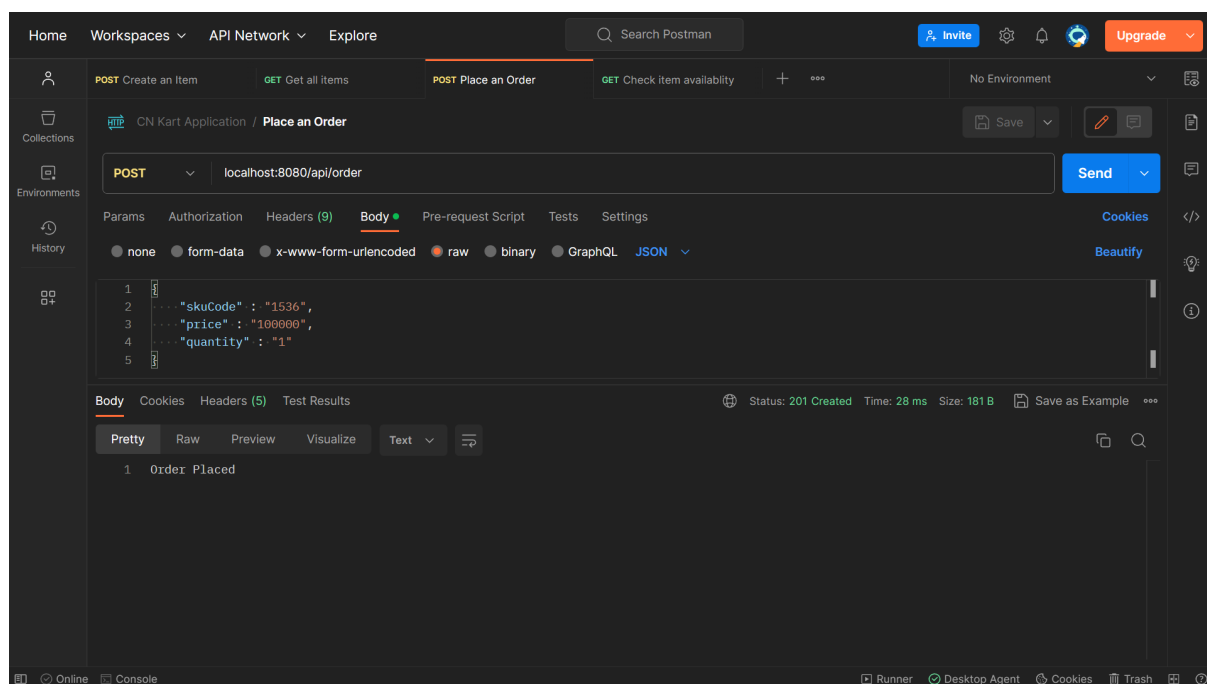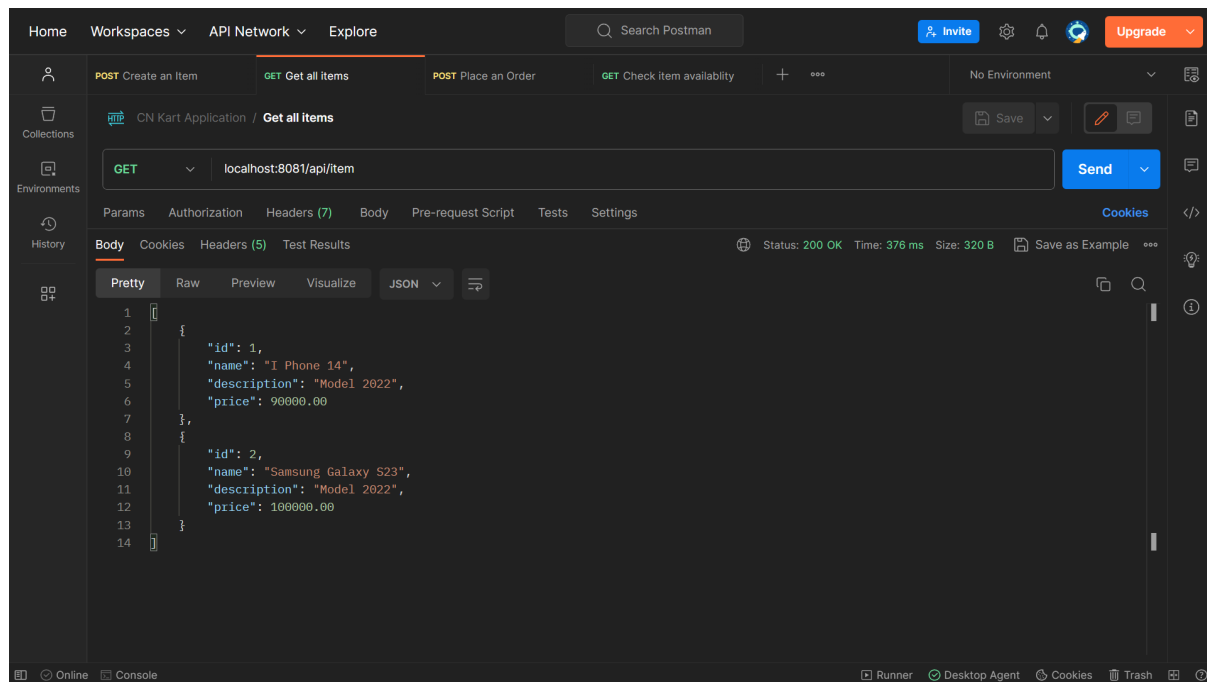
Steps to build the Application:

1. Create three separate Spring Boot projects for the Order Service, Item Service, and Inventory Service. Import the required dependencies.

2. Create Entity and repository classes and configure them to connect with the database.

3. You must use these entity classes for each of the microservices respectively with the given properties and their getters and setters:
   a. **Item Entity:**
      ● id (Long)
      ● name (String)
      ● description (String)
      ● price (BigDecimal)
   b. **Order Entity:**
      ● id (Long),
      ● skuCode (String)
      ● price (BigDecimal)
      ● quantity (Integer)
   c. **Inventory Entity:**
      ● id (Long),
      ● skuCode (String)
      ● quantity (Integer)

4. Create controllers for each of the Microservices with the APIs as described below:
   a. **Item Controller**:
      ● POST /api/item: to create an item
      ● Get /api/item: to get all items

   b. **Order Controller:**
      ● POST /api/order: to place an order.

   c. **Inventory Controller:**

- GET /api/inventory: to check if a particular item is in stock with a specific quantity.

5. Create the service layer for each of the Microservices and implement business logic.

6. Create Repository classes using the JPA repository for the entities.

7. Test the application using Postman.

Solution: [Link](#)