Title: Shopping Cart Microservice

Description: Develop a simple RESTful API for a shopping cart using Java. The API will manage the cart items for an e-commerce platform and calculate the total price at checkout.

Requirements

1. API Functions:
   - /cart/items to add items to the cart.
   - /cart/items/{itemId} to remove items from the cart.
   - /cart/checkout to calculate and return the total price of items in the cart.
2. Item Structure:
   - Each item should have an id, name, price, and quantity.
3. Data Storage:
   - Use an in-memory data structure to store cart items; no need for a database.
4. Validation:
   - Ensure that item quantities and prices are always positive integers.
5. Error Handling:
   - Properly handle cases like deleting an item that doesn't exist.

Coding Practices

- Follow clean code principles.
- Use proper naming conventions and keep methods small and focused.
- Include comments where necessary to explain the intention of the code blocks.

Hosting and Submission

- Host the project on GitHub and share it within the specified time limit.

Time Limit

- The task should not take more than 2 hours to complete.

Evaluation Criteria

- Functionality: The API meets all the functional requirements.
- Code Quality: The code is clean, well-organized, and easy to read.
- Error Handling: The application gracefully handles and responds to error scenarios.

NOTE: Please refrain from using ChatGPT or similar AI tools to generate code for this assessment. We are looking to evaluate your own coding abilities and problem-solving skills. Submissions identified to have been generated by AI tools will lead to disqualification from the recruitment process.