

## Assignment:

Task: Implement Checkout in an E-commerce Website using Golang

Time Limit: 3 hours

### Instructions:

1. You are provided with an existing Golang project for an e-commerce website.
2. The project already has the necessary code structure, server setup, and basic entities.
3. Your task is to implement the checkout process in the project.
4. You can find a dummy payment gateway implementation inside ``payment_gateway.go``. You can directly use it to process payments in this assignment.
5. The request and response body structures for each API call are available inside ``requests.go`` and ``responses.go`` respectively.
6. You need to fill in the code snippets marked with ``//TODO`` in the following functions:
  - ``handleUpdateCart`` function: Implement the logic to update the cart based on the request data.
  - ``handleProcessPayment`` function: Implement the logic to process the payment using the payment gateway integration. You can use the provided dummy payment gateway implementation.
  - ``handleCreateOrder`` function: Implement the logic to create an order based on the cart and payment success.
7. Pay attention to error handling, edge cases, and security measures while implementing the payment gateway integration.
8. Use best practices, follow proper coding conventions, and document your code as necessary.
9. Test the payment integration thoroughly within the given time limit.

### Evaluation Criteria:

1. Correct implementation of the payment gateway integration.
2. Proper handling of cart updates, payment processing, and order creation.
3. Error handling and edge case scenarios.
4. Code quality, readability, and adherence to coding conventions.
5. Security considerations and best practices.
6. Approach and problem-solving ability.
7. Documentation of approach and assumptions made.

Good luck with your assignment!