INTERFACE SPECIFICATION

1. **Interface name:**

IPayment

2. **Interface description.**

This interface enables customers to communicate with VNPay boundary in order to make payments for placing orders or get refunds when cancel an order.

3. **Operation definition.**

- payOrder(amount double, orderInfo Order, client Client): allow customers to make payments for a corresponding order.
- refund(amount double, orderInfo Order, client Client): allows customers to get refund of a corresponding order.

4. **Operation description.**

4.1. payOrder(amount double, orderInfo Order, client Client): initiates payment and makes query requests to VNPay and displays information during transaction. payOrder takes in the amount transaction, the corresponding order and make requests. Then, it creates URLQuery to VNPay and handles URL responses and display to customers. It returns a TransactionInfo which includes the transaction status, amount of money transferred and other information.

4.2. refund(amount double, orderInfo Order, client Client): make requests to VNPay for handling refund and display information about refund process. It returns a transaction which includes the refund status and other related information.

5. **Interface Documentation.**

The IPayment interface defines the behavior required for integrating external payment processing services with the VNPay system. It specifies a set of operations for initiating, requesting, and refunding payment transactions. These operations enable seamless payment processing and error handling within the system. Developers integrating with this interface should adhere to the specified operation definitions and behavior guidelines to ensure consistent and reliable payment processing functionality.