**Interface Specification: IPayment**

**Interface Description:**

**The IPayment interface outlines the protocol for managing payments within the system. It defines the essential methods for initializing, authorizing, and finalizing payment transactions. Serving as a bridge, this interface facilitates secure exchanges between the system and external payment service providers, accommodating various payment methods seamlessly.**

**Operation Definition:**

**payOrder(amount: double, orderInfo: String, client: Client)**

**@param amount (double): The total amount due for the order.**

**@param orderInfo (String): Supplementary information regarding the order.**

**@param client (Client): Represents the initiating customer.**

**@return: Indicates the outcome of the transaction (success or failure).**

**updateTransactionResult(response: String)**

**Operation Description:**

**payOrder(amount: double, orderInfo: String, client: Client): Initiates a payment transaction for a specified order, incorporating the amount, order details, and client information. Upon invocation, this operation orchestrates payment processing, encompassing interactions with payment gateways, order status updates, and issuance of payment confirmations.**

**Interface Documentation:**

**The IPayment interface furnishes a suite of operations essential for payment processing. Implementers must conform to this interface to ensure uniform handling of payments across the system. The payOrder operation orchestrates payment processing for designated orders, accepting parameters such as payment amount, order particulars, and client details. Its implementation encompasses all steps necessary to complete the transaction securely and efficiently. The return value of payOrder signifies the transaction's success or failure, empowering calling code to manage exceptions or provide user feedback effectively. By adhering to IPayment, different payment implementations can seamlessly integrate into the system, fostering flexibility and scalability without compromising functionality.**