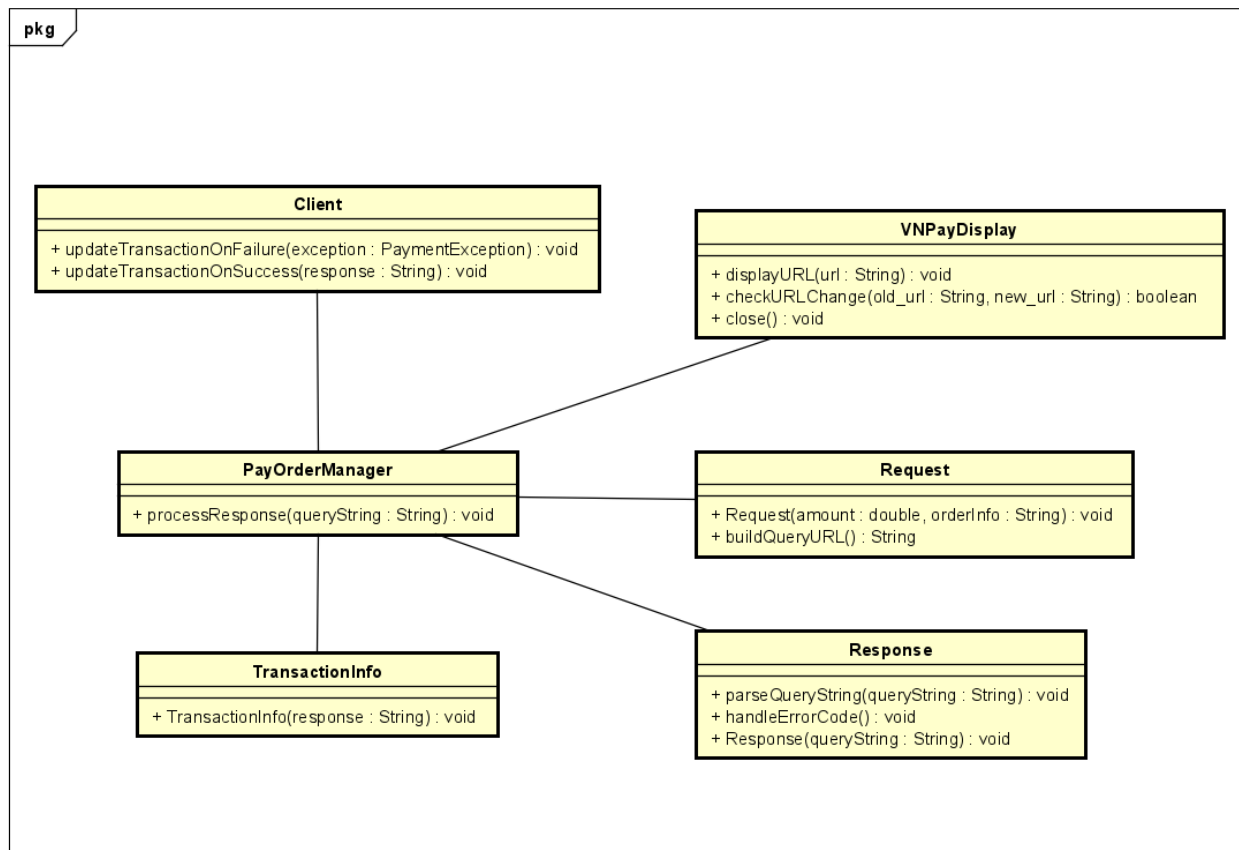


Class Specification



1. TransactionInfo

- Class name: TransactionInfo
- Class description: This class allows the system to store the transaction's info temporarily during the pay order process.
- Operation definition: TransactionInfo(response: String)
 - o @response (String): The response string from VNPay
- Operation description:
 - o TransactionInfo(response: String): Create an object from the response string, contains all the information about the client's transaction attempt.

2. Response

- Class name: Response
- Class description: This class is used to temporarily store information related to VNPay response to client's request to pay the order.
- Operation definition:
 - o parseQueryString(queryString: String)
 - @queryString (String): parse the querystring received from VNPay.

- @return: This extracts some information field from the query string.
- handleErrorCode()
 - @return: Handle the error code included in the query string
- Response(queryString: String)
 - @queryString: The query string returned from VNPay
- Operation description:
 - ParseQueryString(queryString: String) Read the content of the query string
 - handleErrorCode(): Handle the error code that was included in the query string
 - Response(queryString: String) create an instance of the Response class that contains information about VNPay response to the system.

3. Request

- Class name: Request
- Class description: This class is used to temporarily store information related to client's request to pay for the order.
- Operation's definition:
 - Request(amount: double, orderInfo: String)
 - @amount (double): The amount of money that the client has to pay for the order.
 - @orderInfo (String): The information of the order.
 - buildQueryURL()
 - @return a query URL that will be used to redirect the system to VNPay in order to execute a payment request.
- Operation's description:
 - Request(amount: double, orderInfo: String): This method will be used to create an instance of the Request class, that contains all the necessary information related to the client's request to pay for a specific order.
 - buildQueryURL(): This method will create a query message so that the system can redirect user to VNPay software in order to perform the transaction.

4. VNPayDisplay

- Class name: VNPay
- Class description: The class is used to provide a mean of communication between the system and VNPay software during the pay order process.
- Operation definition:
 - displayURL(url: String)
 - @url (String): the url that was previously created by the request class.
 - checkURLChange(old_url: String, new_url: String)
 - @old_url (String): The url string that was passed as a parameter.
 - @new_url (String): The url string that was returned by VNPay software.
- Operation description:
 - displayURL(url: String): Print the url that encodes the pay order request to the screen
 - checkURLChange(old_url: String, new_url: String): Compare the sent and received URL string.

- Close(): Terminate the communication between the system and VNPay software.

5. PayOrderManager

- Class name: PayOrderManager
- Class description: This class is used as a controller, that controls the whole pay order process
- Operation definition:
 - processResponse(queryString: String)
 - @queryString (String): The response string from VNPay software
- Operation description:
 - processResponse(queryString: String): The method will process the response from VNPay software.