Payment Gateway Integration for Android App

This section will guide you to integrate our Payment Gateway SDK seamlessly inside your android app.

Prerequisites

Below are the prerequisites to integrate with Payment Gateway:

1. Be an Approved Merchant: To use our payment gateway, you should be a registered and approved merchant by us. If not registered, please register to get started!
2. Obtain API Key: You should have received an API key from us on Approval.
3. API to receive Payment Response: You should have a self hosted web server to receive the response and verify the payment details post payment.
4. Min SDK Requirements: You should ensure that your Android App's SDK version should be greater than or equal to 21.

Downloads

1. payment gateway android integrations Link:

   https://pgandroidintegrations.docs.stoplight.io/

2. Our payment gateway android SDK can be downloaded here:

   Download AAR for SDK 19 to 27

   Download AAR for AndroidX

3. A sample Android App that illustrates the integration of any app with our SDK can be downloaded here:

   Download SampleAPP with AAR for SDK 19 to 27

   Download SampleAPP with AAR for AndroidX

Integration Steps

1. Download the Basispay_Paymentgateway_Android zip folder and unzip it.

Copy the PGSDKVR4 AAR file and save this in your Desktop.

Prerequisites

Your Android App’s SDK Version must be greater than or equal to 19.

Add the PGSDKVR4 AAR library to your app:

- Click File > New > New Module.
- Click Import .JAR/.AAR Package then click Next.
- Enter the location of the PGSDKVR4 AAR file then click Finish.

Make sure PGSDKVR4 library is listed at the top of your settings.gradle file, as shown below:

For SDK 19-27

```
include ':app', ':PGSDKVR4'
```

For AndroidX

```
include ':app', ':pgsdkv5ax'
```

Open your app module’s build.gradle file and add the below line to the dependencies block as shown in the following snippet:

For SDK 19-27

```
dependencies

{

   implementation project(":PGSDKVR4")

}
```

For AndroidX

```
dependencies

{

   implementation project(":pgsdkv5ax")

}
```

Click Sync Project with Gradle Files

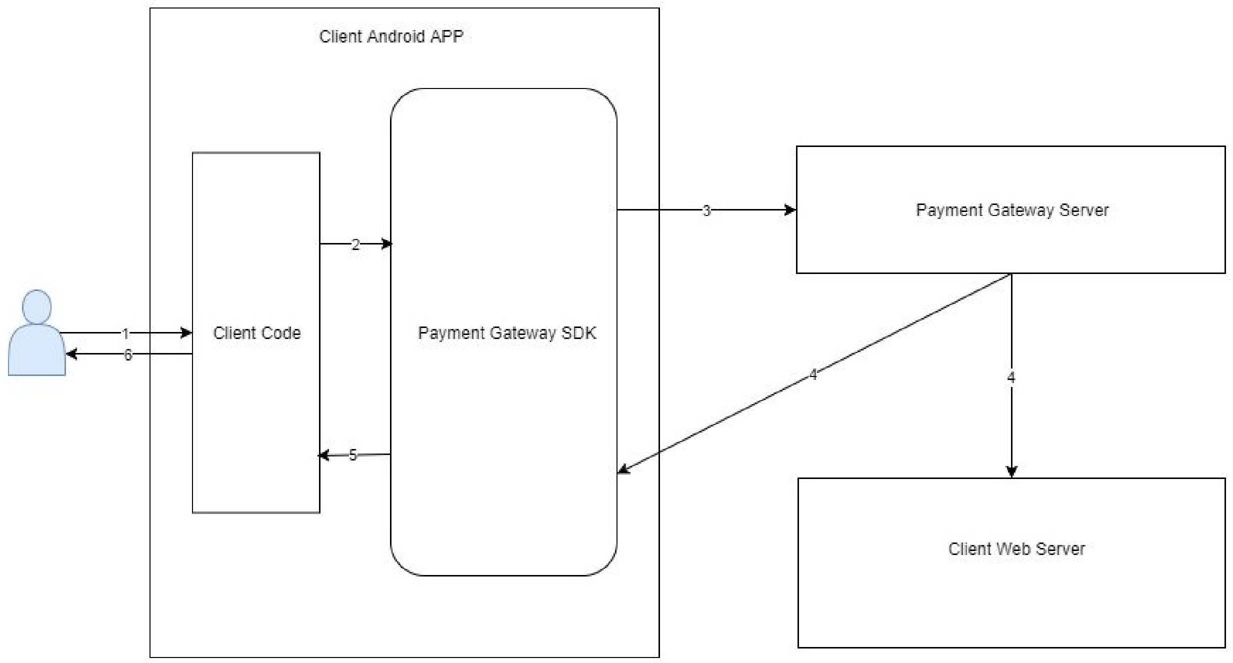
Make sure you have the below permissions in your manifest file:

```
<uses-permission android:name="android.permission.INTERNET" />

<uses-permission android:name="android.permission.ACCESS_WIFI_STATE" />
```

Code Explanation

Note

Your App must use the latest security standards to prevent your code being compromised.



1. User starts the payment in the client's app.
2. Client’s code then sets the payment parameters and initiates the payment process via the SDK.
3. The SDK in-turn interacts with the Payment Gateway server during the payment process.
4. After the payment, the Payment Gateway sends the payment response to the Client’s web server(Via the Return URL)and to the SDK.At this point, the client’s code in the Client’s web server code should re verify the hash in the payment response and store the response in the Database.
5. The SDK parses the payment response and converts into json and provides it to the Client’s code. At this point, the client should compare the amount and order id with their corresponding value DB in the web server.
6. If the values match,Client’s Code then displays the payment response to the User.

Initiate the “com.test.pg.secure.pgsdkv4.PaymentParams” CLASS to set the payment parameters:

Set the payment parameters

```
PaymentParams pgPaymentParams = new PaymentParams();
pgPaymentParams.setAPiKey(SampleAppConstants.PG_API_KEY);
pgPaymentParams.setAmount(SampleAppConstants.PG_AMOUNT);
pgPaymentParams.setEmail(SampleAppConstants.PG_EMAIL);
pgPaymentParams.setName(SampleAppConstants.PG_NAME);
pgPaymentParams.setPhone(SampleAppConstants.PG_PHONE);
pgPaymentParams.setOrderId(SampleAppConstants.PG_ORDER_ID);
pgPaymentParams.setCurrency(SampleAppConstants.PG_CURRENCY);
pgPaymentParams.setDescription(SampleAppConstants.PG_DESCRIPTION);
pgPaymentParams.setCity(SampleAppConstants.PG_CITY);
pgPaymentParams.setState(SampleAppConstants.PG_STATE);
pgPaymentParams.setAddressLine1(SampleAppConstants.PG_ADD_1);
pgPaymentParams.setAddressLine2(SampleAppConstants.PG_ADD_2);
pgPaymentParams.setZipCode(SampleAppConstants.PG_ZIPCODE);
pgPaymentParams.setCountry(SampleAppConstants.PG_COUNTRY);
pgPaymentParams.setReturnUrl(SampleAppConstants.PG_RETURN_URL);
pgPaymentParams.setMode(SampleAppConstants.PG_MODE);
pgPaymentParams.setUdf1(SampleAppConstants.PG_UDF1);
pgPaymentParams.setUdf2(SampleAppConstants.PG_UDF2);
pgPaymentParams.setUdf3(SampleAppConstants.PG_UDF3);
pgPaymentParams.setUdf4(SampleAppConstants.PG_UDF4);
pgPaymentParams.setUdf5(SampleAppConstants.PG_UDF5);
```

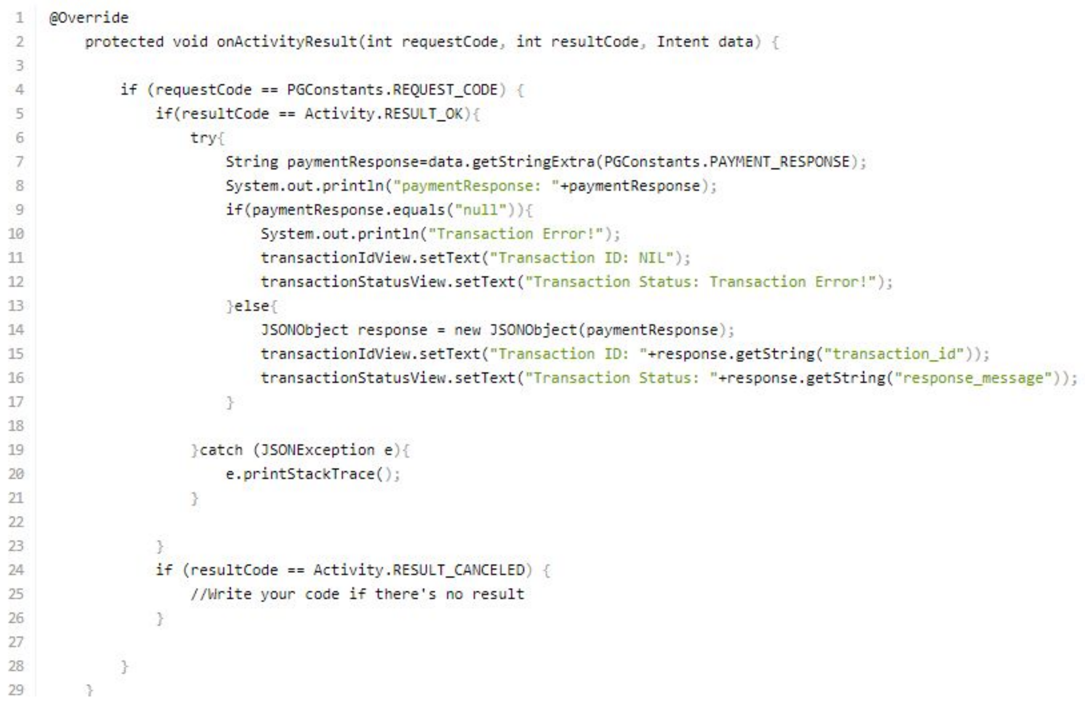
Initialize the com.test.pg.secure.pgsdkv4.PaymentGatewayPaymentInitializer class with payment parameters and initiate the payment:

Initiate the payment

```
PaymentGatewayPaymentInitializer pgPaymentInitialzer = new
PaymentGatewayPaymentInitializer(pgPaymentParams,MainActivity.this);
pgPaymentInitialzer.initiatePaymentProcess();
```

To receive the json response, override the onActivityResult() using the REQUEST_CODE and PAYMENT_RESPONSE variables from com.test.pg.secure.pgsdkv4.PaymentParams class

Payment Response Code

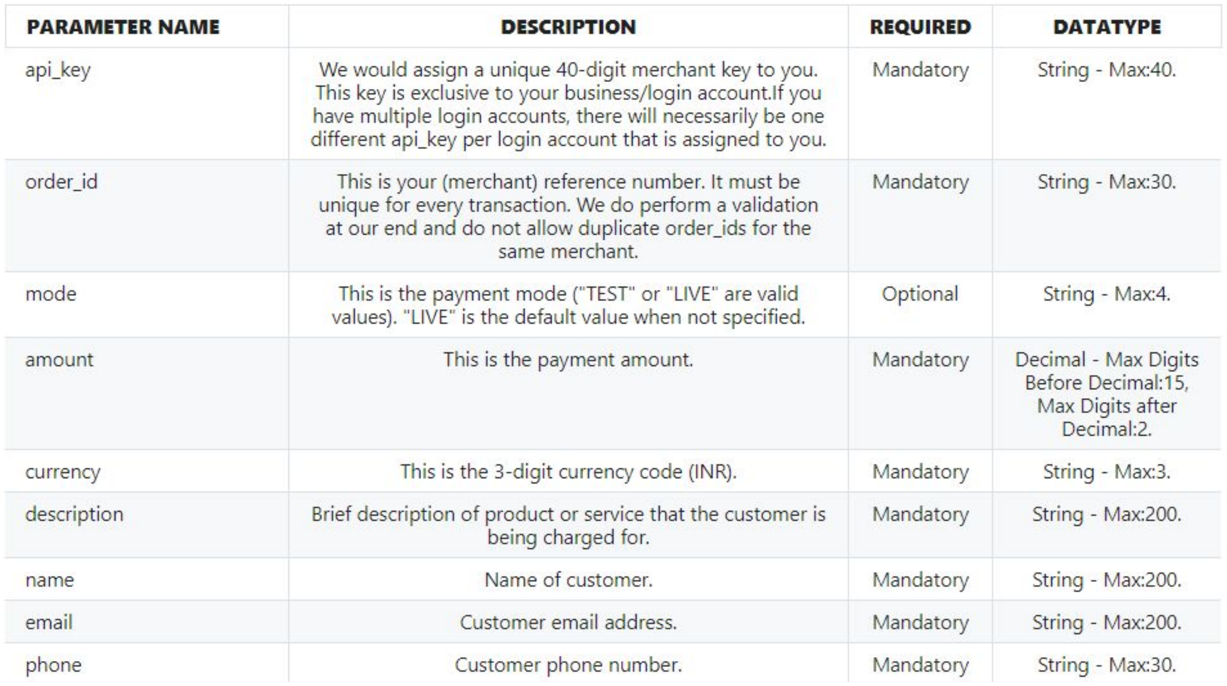
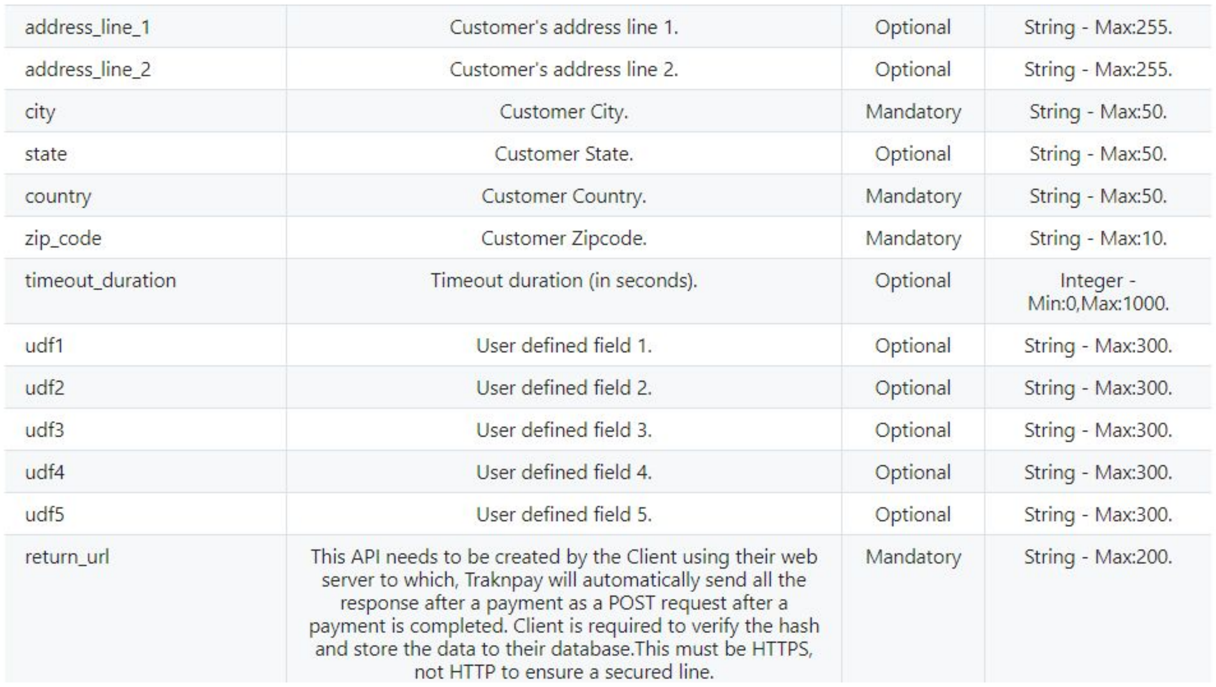


```java
@Override
    protected void onActivityResult(int requestCode, int resultCode, Intent data) {

        if (requestCode == PGConstants.REQUEST_CODE) {
            if(resultCode == Activity.RESULT_OK){
                try{
                    String paymentResponse=data.getStringExtra(PGConstants.PAYMENT_RESPONSE);
                    System.out.println("paymentResponse: "+paymentResponse);
                    if(paymentResponse.equals("null")){
                        System.out.println("Transaction Error!");
                        transactionIdView.setText("Transaction ID: NIL");
                        transactionStatusView.setText("Transaction Status: Transaction Error!");
                    }else{
                        JSONObject response = new JSONObject(paymentResponse);
                        transactionIdView.setText("Transaction ID: "+response.getString("transaction_id"));
                        transactionStatusView.setText("Transaction Status: "+response.getString("response_message"));
                    }

                }catch (JSONException e){
                    e.printStackTrace();
                }

            }
            if (resultCode == Activity.RESULT_CANCELED) {
                //Write your code if there's no result
            }

        }
    }
```

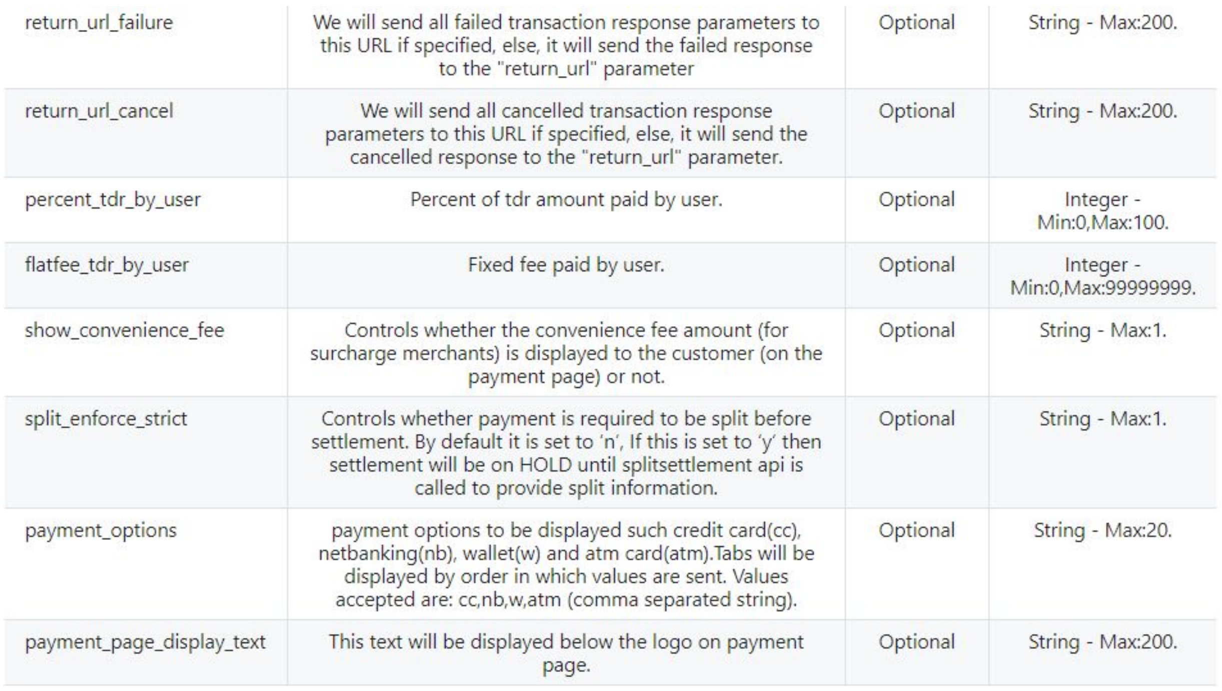
Note

Request parameters are the parameters that will be sent to our server API for payment initiation. Client should store the order id and the amount before payment initiation and compare it with the order id and amount in the response Json from our server post payment process to ensure no end user tampering on the requested parameters.

List of Request Parameters

PARAMETER NAME	DESCRIPTION	REQUIRED	DATATYPE
api_key	We would assign a unique 40-digit merchant key to you. This key is exclusive to your business/login account.If you have multiple login accounts, there will necessarily be one different api_key per login account that is assigned to you.	Mandatory	String - Max:40.
order_id	This is your (merchant) reference number. It must be unique for every transaction. We do perform a validation at our end and do not allow duplicate order_ids for the same merchant.	Mandatory	String - Max:30.
mode	This is the payment mode ("TEST" or "LIVE" are valid values). "LIVE" is the default value when not specified.	Optional	String - Max:4.
amount	This is the payment amount.	Mandatory	Decimal - Max Digits Before Decimal:15, Max Digits after Decimal:2.
currency	This is the 3-digit currency code (INR).	Mandatory	String - Max:3.
description	Brief description of product or service that the customer is being charged for.	Mandatory	String - Max:200.
name	Name of customer.	Mandatory	String - Max:200.
email	Customer email address.	Mandatory	String - Max:200.
phone	Customer phone number.	Mandatory	String - Max:30.
address_line_1	Customer's address line 1.	Optional	String - Max:255.
address_line_2	Customer's address line 2.	Optional	String - Max:255.
city	Customer City.	Mandatory	String - Max:50.
state	Customer State.	Optional	String - Max:50.
country	Customer Country.	Mandatory	String - Max:50.
zip_code	Customer Zipcode.	Mandatory	String - Max:10.
timeout_duration	Timeout duration (in seconds).	Optional	Integer - Min:0,Max:1000.
udf1	User defined field 1.	Optional	String - Max:300.
udf2	User defined field 2.	Optional	String - Max:300.
udf3	User defined field 3.	Optional	String - Max:300.
udf4	User defined field 4.	Optional	String - Max:300.
udf5	User defined field 5.	Optional	String - Max:300.
return_url	This API needs to be created by the Client using their web server to which, Traknpay will automatically send all the response after a payment as a POST request after a payment is completed. Client is required to verify the hash and store the data to their database.This must be HTTPS, not HTTP to ensure a secured line.	Mandatory	String - Max:200.

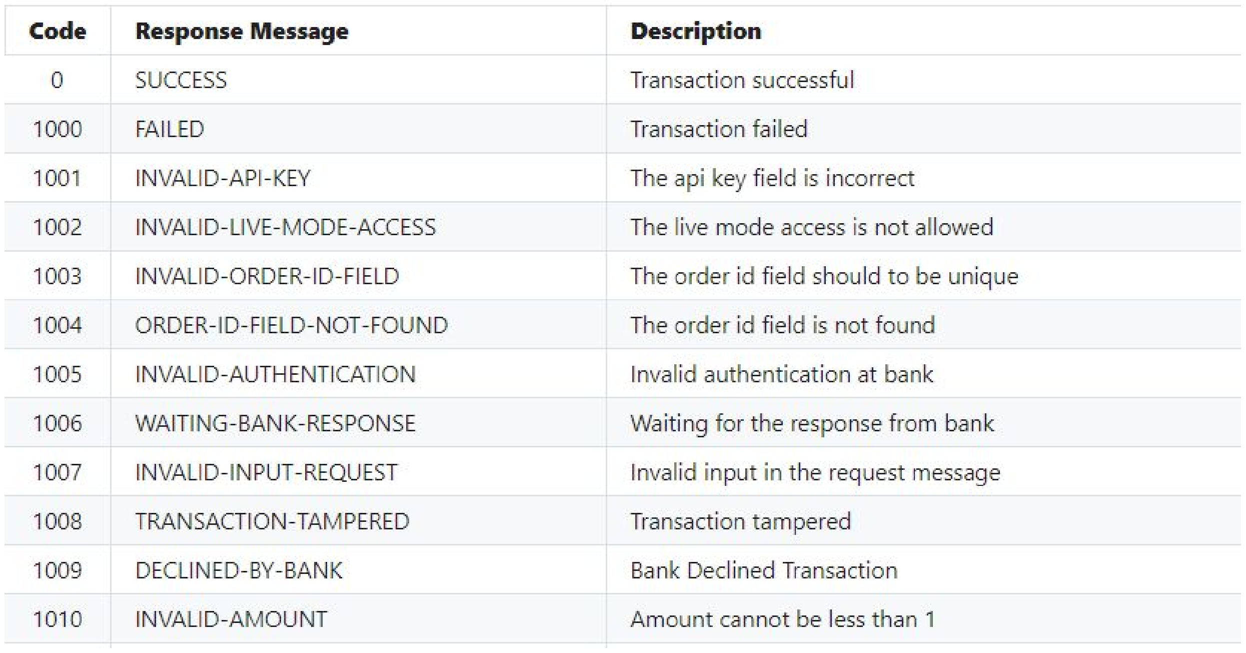


return_url_failure	We will send all failed transaction response parameters to this URL if specified, else, it will send the failed response to the "return_url" parameter	Optional	String - Max:200.
return_url_cancel	We will send all cancelled transaction response parameters to this URL if specified, else, it will send the cancelled response to the "return_url" parameter.	Optional	String - Max:200.
percent_tdr_by_user	Percent of tdr amount paid by user.	Optional	Integer - Min:0,Max:100.
flatfee_tdr_by_user	Fixed fee paid by user.	Optional	Integer - Min:0,Max:99999999.
show_convenience_fee	Controls whether the convenience fee amount (for surcharge merchants) is displayed to the customer (on the payment page) or not.	Optional	String - Max:1.
split_enforce_strict	Controls whether payment is required to be split before settlement. By default it is set to 'n', If this is set to 'y' then settlement will be on HOLD until splitsettlement api is called to provide split information.	Optional	String - Max:1.
payment_options	payment options to be displayed such credit card(cc), netbanking(nb), wallet(w) and atm card(atm).Tabs will be displayed by order in which values are sent. Values accepted are: cc,nb,w,atm (comma separated string).	Optional	String - Max:20.
payment_page_display_text	This text will be displayed below the logo on payment page.	Optional	String - Max:200.

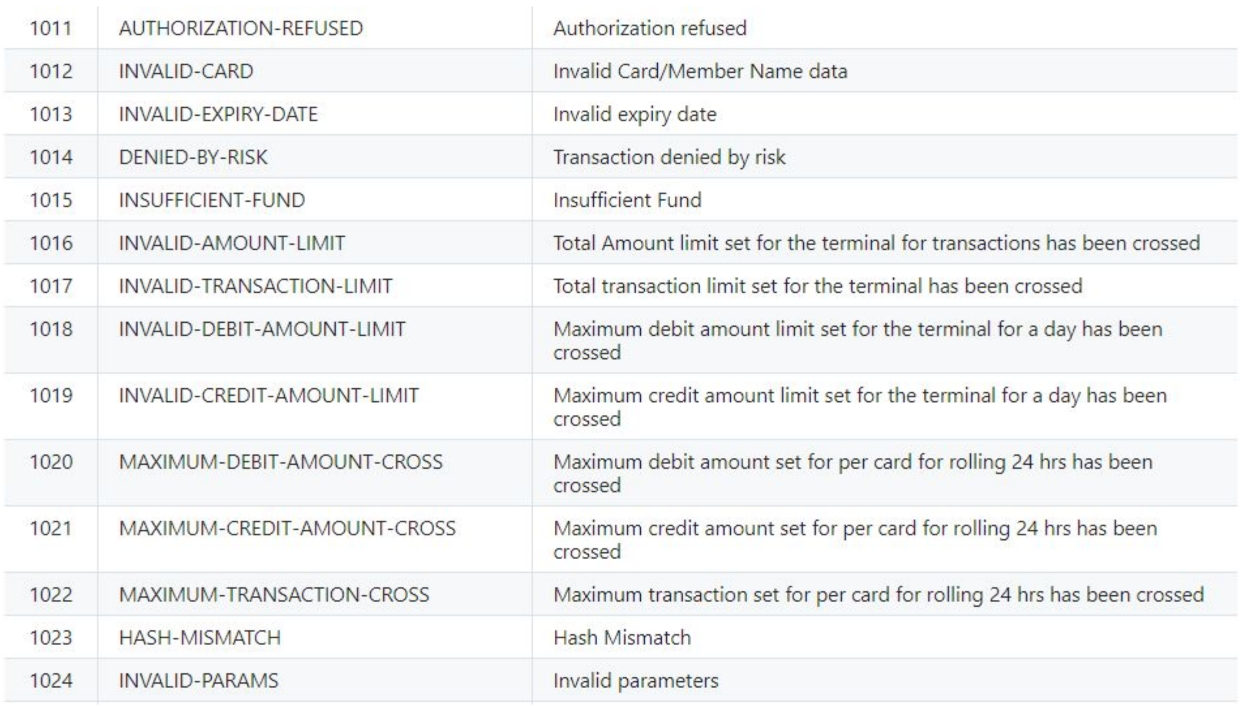
List of Response Codes

Note

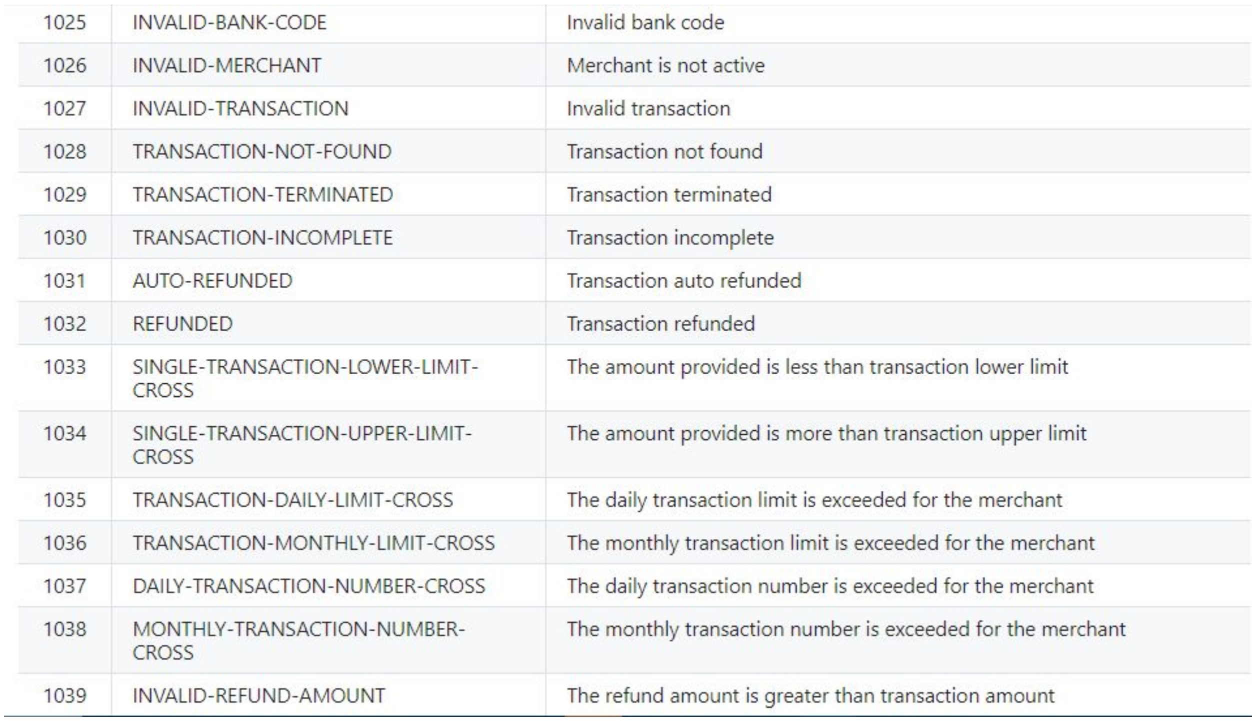
Below are the response codes that come in the payment response post payment from our server, that must be handled by the client.



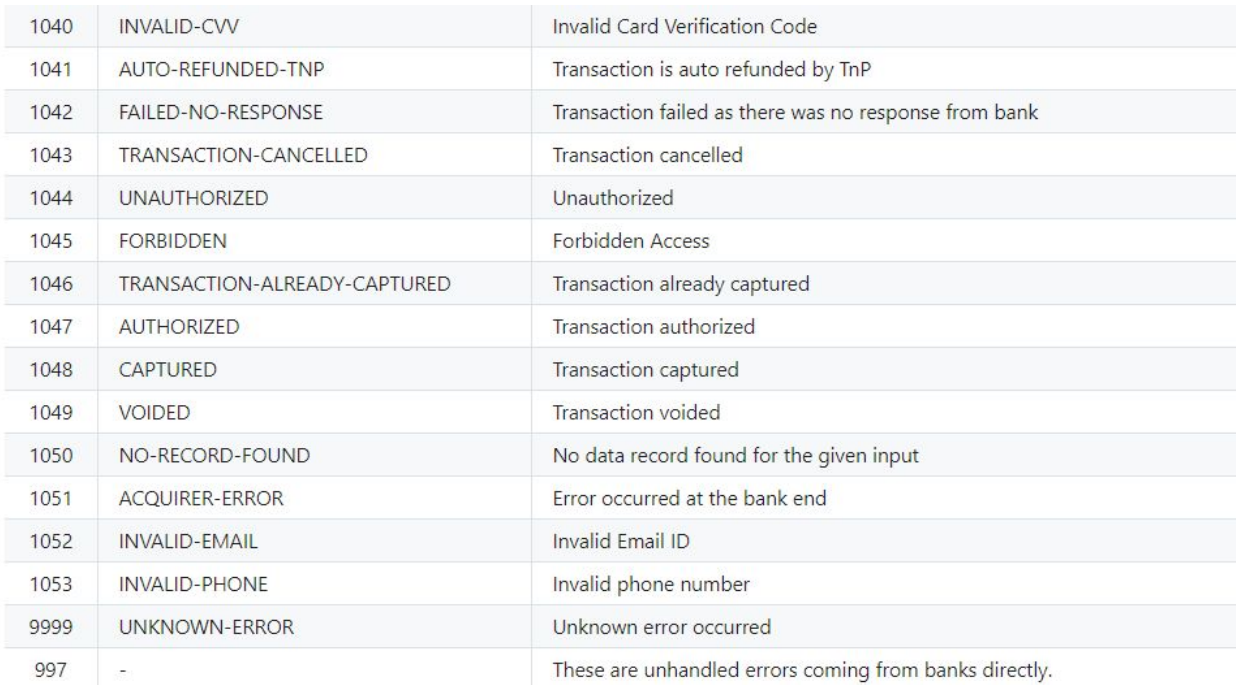
Code	Response Message	Description
0	SUCCESS	Transaction successful
1000	FAILED	Transaction failed
1001	INVALID-API-KEY	The api key field is incorrect
1002	INVALID-LIVE-MODE-ACCESS	The live mode access is not allowed
1003	INVALID-ORDER-ID-FIELD	The order id field should to be unique
1004	ORDER-ID-FIELD-NOT-FOUND	The order id field is not found
1005	INVALID-AUTHENTICATION	Invalid authentication at bank
1006	WAITING-BANK-RESPONSE	Waiting for the response from bank
1007	INVALID-INPUT-REQUEST	Invalid input in the request message
1008	TRANSACTION-TAMPERED	Transaction tampered
1009	DECLINED-BY-BANK	Bank Declined Transaction
1010	INVALID-AMOUNT	Amount cannot be less than 1



1011	AUTHORIZATION-REFUSED	Authorization refused
1012	INVALID-CARD	Invalid Card/Member Name data
1013	INVALID-EXPIRY-DATE	Invalid expiry date
1014	DENIED-BY-RISK	Transaction denied by risk
1015	INSUFFICIENT-FUND	Insufficient Fund
1016	INVALID-AMOUNT-LIMIT	Total Amount limit set for the terminal for transactions has been crossed
1017	INVALID-TRANSACTION-LIMIT	Total transaction limit set for the terminal has been crossed
1018	INVALID-DEBIT-AMOUNT-LIMIT	Maximum debit amount limit set for the terminal for a day has been crossed
1019	INVALID-CREDIT-AMOUNT-LIMIT	Maximum credit amount limit set for the terminal for a day has been crossed
1020	MAXIMUM-DEBIT-AMOUNT-CROSS	Maximum debit amount set for per card for rolling 24 hrs has been crossed
1021	MAXIMUM-CREDIT-AMOUNT-CROSS	Maximum credit amount set for per card for rolling 24 hrs has been crossed
1022	MAXIMUM-TRANSACTION-CROSS	Maximum transaction set for per card for rolling 24 hrs has been crossed
1023	HASH-MISMATCH	Hash Mismatch
1024	INVALID-PARAMS	Invalid parameters



1025	INVALID-BANK-CODE	Invalid bank code
1026	INVALID-MERCHANT	Merchant is not active
1027	INVALID-TRANSACTION	Invalid transaction
1028	TRANSACTION-NOT-FOUND	Transaction not found
1029	TRANSACTION-TERMINATED	Transaction terminated
1030	TRANSACTION-INCOMPLETE	Transaction incomplete
1031	AUTO-REFUNDED	Transaction auto refunded
1032	REFUNDED	Transaction refunded
1033	SINGLE-TRANSACTION-LOWER-LIMIT-CROSS	The amount provided is less than transaction lower limit
1034	SINGLE-TRANSACTION-UPPER-LIMIT-CROSS	The amount provided is more than transaction upper limit
1035	TRANSACTION-DAILY-LIMIT-CROSS	The daily transaction limit is exceeded for the merchant
1036	TRANSACTION-MONTHLY-LIMIT-CROSS	The monthly transaction limit is exceeded for the merchant
1037	DAILY-TRANSACTION-NUMBER-CROSS	The daily transaction number is exceeded for the merchant
1038	MONTHLY-TRANSACTION-NUMBER-CROSS	The monthly transaction number is exceeded for the merchant
1039	INVALID-REFUND-AMOUNT	The refund amount is greater than transaction amount



1040	INVALID-CVV	Invalid Card Verification Code
1041	AUTO-REFUNDED-TNP	Transaction is auto refunded by TnP
1042	FAILED-NO-RESPONSE	Transaction failed as there was no response from bank
1043	TRANSACTION-CANCELLED	Transaction cancelled
1044	UNAUTHORIZED	Unauthorized
1045	FORBIDDEN	Forbidden Access
1046	TRANSACTION-ALREADY-CAPTURED	Transaction already captured
1047	AUTHORIZED	Transaction authorized
1048	CAPTURED	Transaction captured
1049	VOIDED	Transaction voided
1050	NO-RECORD-FOUND	No data record found for the given input
1051	ACQUIRER-ERROR	Error occurred at the bank end
1052	INVALID-EMAIL	Invalid Email ID
1053	INVALID-PHONE	Invalid phone number
9999	UNKNOWN-ERROR	Unknown error occurred
997	-	These are unhandled errors coming from banks directly.

THANK YOU