

Mobile SDK Specifications for Android  
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## 1. Prerequisite

Please provide below information to verify merchant identity from MOLPay Server in order for merchant's app to use the payment channel:

- merchant ID
- verify key
- appname
- username
- password

All the values above are in one word without whitespace.

The information should be submitted to MOLPay support team and the email address is [support@molpay.com](mailto:support@molpay.com)

## 2. System Requirements

- Minimum required android OS version: 2.3
- Internet Connection is essential for the MOLPay SDK to successfully connected with the MOLPay API

## 3. MOLPay Android Payment Library

This section explains details about the library API, and it explains the instructions and example to be follow to develop an Android apps that using mobile payment channel.

The information should be submitted to MOLPay support team and the email address is [support@molpay.com](mailto:support@molpay.com)

### 3.1 How the Library Works

The flow of the library is as below:

1. Library is in JAR format;
2. Initiate the library;
3. Merchant app to pass buyer's information to the SDK library and will be sent to MOLPay server;
4. After payment is completed, MOLPay will return the result for transaction id and payment status;
5. Library will return the result back to application.

### 3.2 Declaring Permissions and Activity in AndroidManifest.xml

To use the payment channel, Internet Permission is required for the application to avoid any error during payment make.

#### 3.2.1 Declaring Permission

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

#### 3.2.1 Declaring Activity

```
<activity  
    android:name="com.molpay.molpaylib.MOLPayActivity"  
    android:configChanges="keyboardHidden|orientation|screenSize">  
</activity>
```

### 3.3 Adding the Library, Files and Importing Classes

Assuming that user is using the eclipse as development tools for the android application, the steps will be as follow :

1. Create folder name's libs and copy the molpay.jar into the folder.
2. Right click on your project and select "Properties"
3. Select "Java Build Path"
4. Select the "Libraries" tab
5. Select the "Add External Jars..." button
6. Choose the "molpay.jar", "gson.jar", "universal-image-loader-1.9.2.jar" and / or "android-support-v13" files from MOLPay SDK folder and click "open"
7. Select "Order and Export" and tick all newly add jars and click "ok"
8. Copy res folder and paste in the project res folder
9. Copy all layout in the layout folder and paste in the project layout folder

\*Please be careful when does copy and paste steps so that your project files not be replaced by MOLPay sdk files.

\*If any errors occur, try clean the project.

You are required to import appropriate classes into your application classes as example show below:

```
import com.molpay.molpaylib.MOLPayActivity;  
import com.molpay.molpaylib.settings.MerchantInfo;
```

### 3.4 Listing Payment Channels

There are 2 ways for buyer to select the payment channel. First is to list out all available channels in this SDK. Second is to pass a specific channel to the SDK.

### 3.4.1 Listing all the channels

```
bundle.putString("Channel", "multi"); Type: String
```

### 3.4.2 Specific channel

```
bundle.putString("Channel", "MB2u"); Type: String
```

\* **Note:** Please refer to last page of this document for the full lists of “Channel” value.

## 3.5 Initiate the Payment Activity

*MOLPayActivity* is to start payment activity. For example:

```
public static final int REQUEST_CODE=1; //Any number

Intent intent = new Intent(this, MOLPayActivity.class);
startActivityForResult(intent, REQUEST_CODE);
```

To pass the payment information to the activity, please refer to following example:

```
Intent intent = new Intent(this, MOLPayActivity.class);
Bundle bundle = new Bundle();

//Merchant Info
bundle.putString("MerchantId", merchantId) Type: String
bundle.putString("AppName", appName); Type: String
bundle.putString("VerifyKey", verifykey); Type: String
bundle.putString("Username", username); Type: String
bundle.putString("Password", password); Type: String

//Buyer Info
bundle.putString("OrderId", orderid ); Type: String
bundle.putString("BillName", bill_Name); Type: String
bundle.putString("BillDesc", bill_Desc); Type: String
bundle.putString("BillMobile", bill_Mobile); Type: String
bundle.putString("BillEmail", bill_Email); Type: String
bundle.putString("Channel", Channel); Type: String
bundle.putString("Currency", Currency); Type: String
bundle.putString("Country", Country); Type: String
bundle.putFloat("Amount", Amount); Type: Float
bundle.putBoolean("debug", false); Type: Boolean //Make this true to
enable debugging
bundle.putBoolean("editable", false); Type: Boolean //Make this true to
make the sdk fields editable
intent.putExtras(bundle);
startActivityForResult(intent, REQUEST_CODE);
```

\* **Note:** Please refer to MOLPay API for the full lists of “Channel” value.

To Start the MOLPay SDK as the example below:

```
Intent intent = new Intent(this, MOLPayActivity.class);
Bundle bundle = new Bundle();
```

```
intent.putExtras(bundle);
startActivityForResult(intent, REQUEST_CODE);
```

- **Note:** Hitting the back button while MOLPay SDK is running will cause the payment page to exit after a warning dialog box

### 3.6 Payment Result (Auto-return Payment Status)

You can either implement auto-return payment result or manual request for the payment result.

To receive the result automatically from library, you need to call `onActivityResult`.

```
public class MainActivity extends FragmentActivity implements
@Override
protected void onActivityResult(int requestCode, int resultCode, Intent
data) {
    if (resultCode == RESULT_OK && requestCode == REQUEST_CODE) {
        Bundle bundle = data.getExtras().getBundle("bundle"); String
amount = bundle.getString(MerchantInfo.PAY_AMOUNT); String
transaction_id = bundle.getString(MerchantInfo.TXN_ID);
String transaction_status = bundle.getString(MerchantInfo.STATUS_CODE);
String error_desc = bundle.getString(MerchantInfo.ERR_DESC);
String bill_name = bundle.getString(MerchantInfo.BILL_NAME);
String bill_email = bundle.getString(MerchantInfo.BILL_EMAIL);
String bill_mobile = bundle.getString(MerchantInfo.BILL_MOBILE);
String bill_desc = bundle.getString(MerchantInfo.BILL_DESC);

//transaction_status = 00 (SUCCESS), 11(FAIL) & 22(PENDING)
    }
```

### 3.7 Payment Result (Manual Payment Status Request)

To use manual approach, developer needs to pass the request status information to the fragment, please refer to following example:

```
String merchant_id = MerchandId (String);
String txn_id = TransactionId (String);
float amount = Amount (float);
String verifyKey = VerifyKey (String);

String [] request = {merchant_id, txn_id, ""+amount, verifyKey};
new RequestResult().execute(request);

private class RequestResult extends AsyncTask<String, Void, Boolean> {

    String HTMLResult;

    @Override
    protected Boolean doInBackground(String... param) {
        String merchant_id = ""+param[0];
        String txn_id = ""+param[1];
        float amount = Float.parseFloat(param[2]);
        String verifyKey = ""+param[3];

        HTMLResult = JSONnString.requestResult(merchant_id, txn_id, amount,
        verifyKey);
    }
}
```



```

return true;
}

@Override
protected void onPostExecute(Boolean result) {
    super.onPostExecute(result);
    if (result)
    {
        try {
            JSONObject jsonObj = new JSONObject(HTMLResult);
            String transactionID = jsonObj.getString("txn_ID");
            String amount = jsonObj.getString("amount");
            String status_code = jsonObj.getString("status_code");
            String app_code = jsonObj.getString("app_code");
        }
        catch (JSONException e) {
            e.printStackTrace();
        }
    }
}
}
}

```

If multiple or duplicated order ID found in MOLPay system, the latest transaction status will be returned.

### 3.8 Transaction Details Using OrderId (Manual Payment Status Request)

The SDK allows grabbing the transaction details using the orderId after the transaction already created, please refer to following example:

```

String merchant_id = MerchandId (String);
String order_id = OrderId (String);
float amount = Amount (float);
String verifyKey = VerifyKey (String);

```

```

String [] request = {merchant_id, order_id, String.valueOf (amount),
verifyKey};
new RequestResult().execute(request);

```

```

private class RequestResult extends AsyncTask<String, Void, Boolean> {

    String HTMLResult;

    @Override
    protected Boolean doInBackground(String... param) {

        String merchant_id = ""+param[0];
        String order_id = ""+param[1];
        float amount = Float.parseFloat(param[2]);
        String verifyKey = ""+param[3];

        HTMLResult = JSONNString.GetTxnIdManually(merchant_id, order_id,
amount, verifyKey);
    }
}

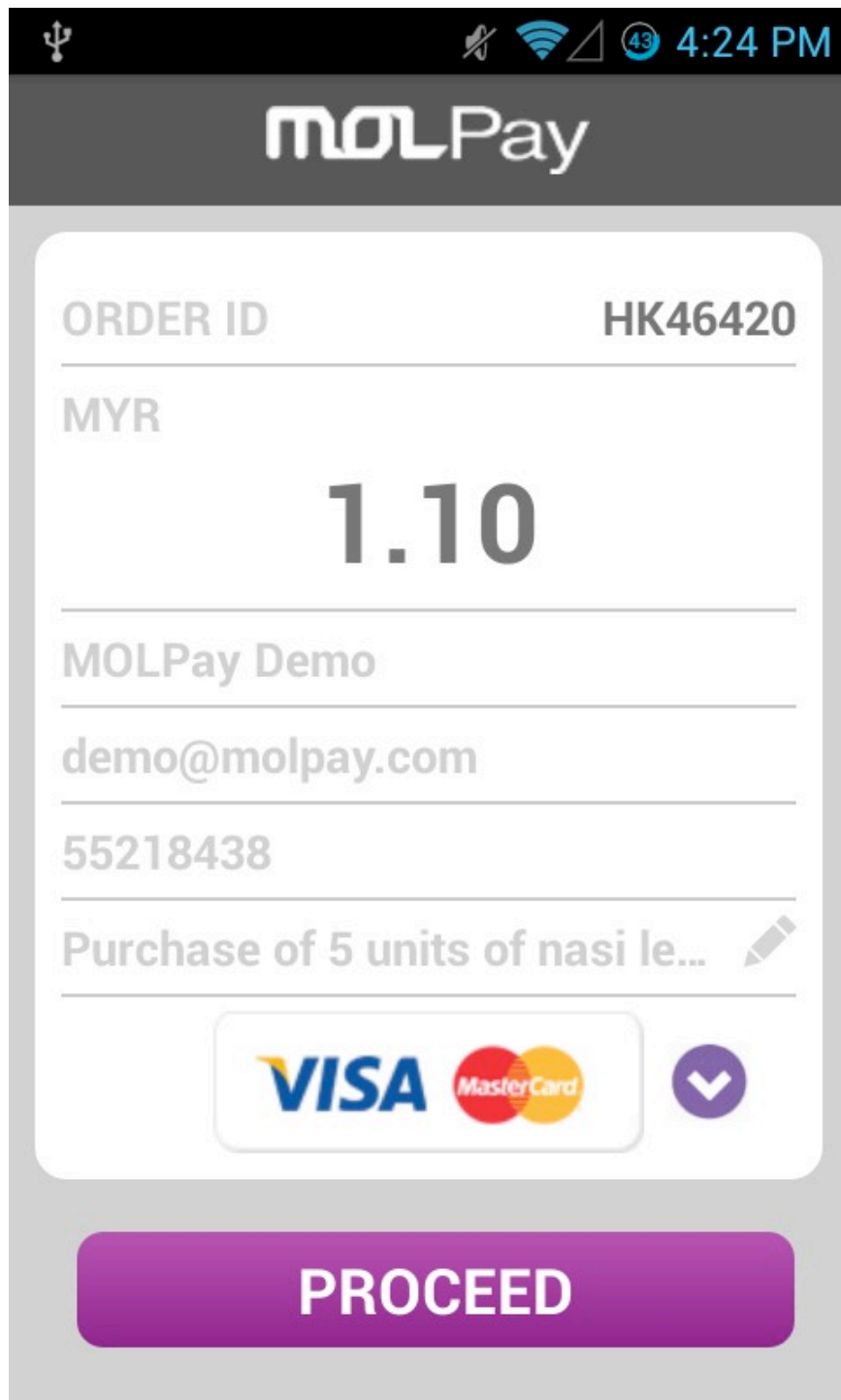
```

```
return true;
}

@Override
protected void onPostExecute(Boolean result) {
    super.onPostExecute(result);
    if (result)
    {
        try {
            JSONObject jsonObj = new JSONObject(HTMLResult);
            String transactionID = jsonObj.getString("txn_ID");
            String amount = jsonObj.getString("amount");
            String status_code = jsonObj.getString("status_code");
            String app_code = jsonObj.getString("app_code");
        }
        catch (JSONException e) {
            e.printStackTrace();
        }
    }
}
```

### 3.9 MOLPay SDK Screenshots

#### Order details



A screenshot of the MOLPay SDK interface on a mobile device. The status bar at the top shows a USB icon, signal strength, Wi-Fi, and the time 4:24 PM. The app header is a dark grey bar with the MOLPay logo. The main content area is a white card with rounded corners. It displays the ORDER ID HK46420, the currency MYR, and the amount 1.10. Below this, it shows the merchant name MOLPay Demo, the email demo@molpay.com, and the card number 55218438. The item description is 'Purchase of 5 units of nasi le...' with a pencil icon for editing. At the bottom of the card are the VISA and MasterCard logos and a dropdown arrow. A large purple button labeled 'PROCEED' is at the bottom of the screen.

ORDER ID HK46420

MYR

1.10

MOLPay Demo

demo@molpay.com

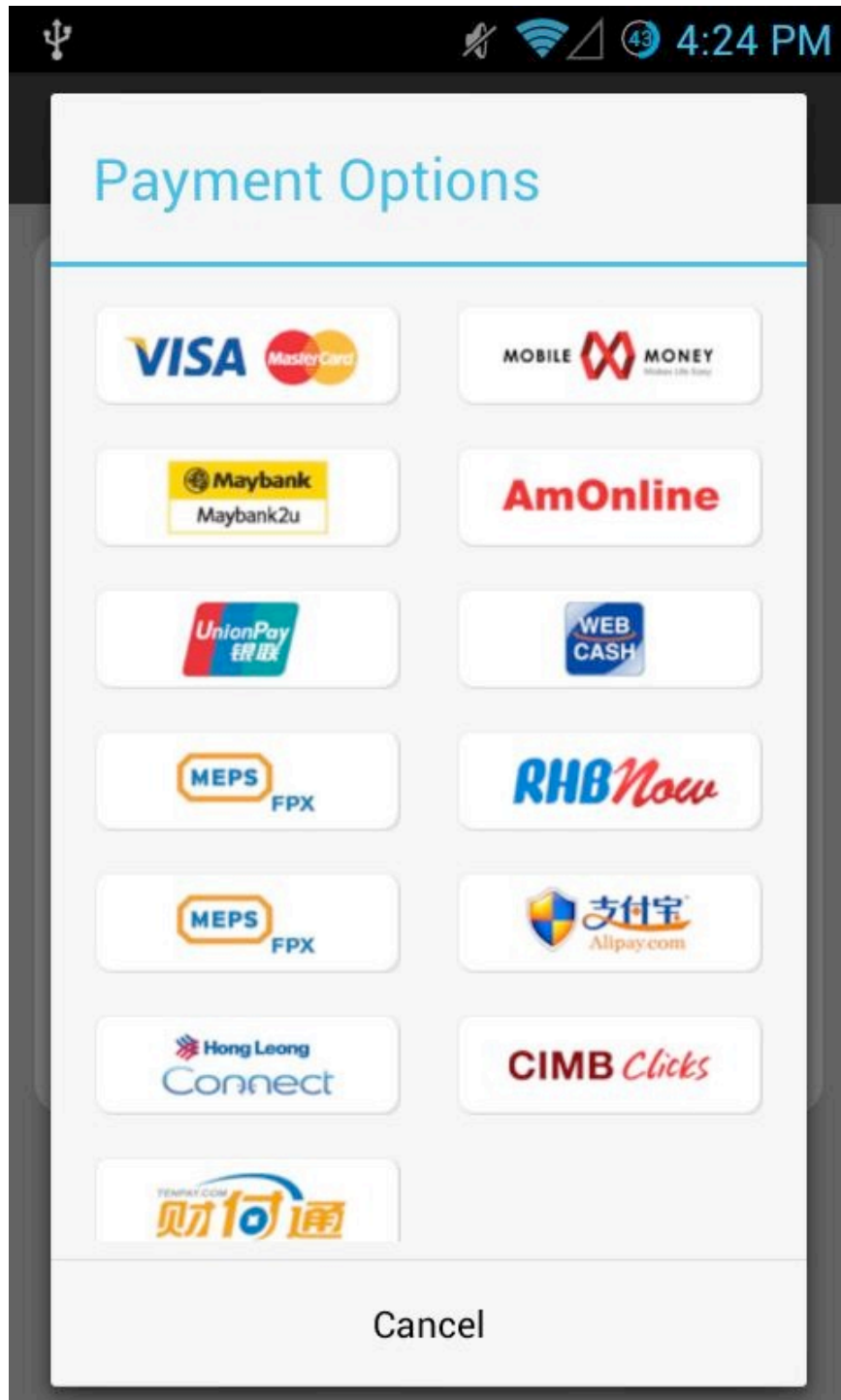
55218438

Purchase of 5 units of nasi le...

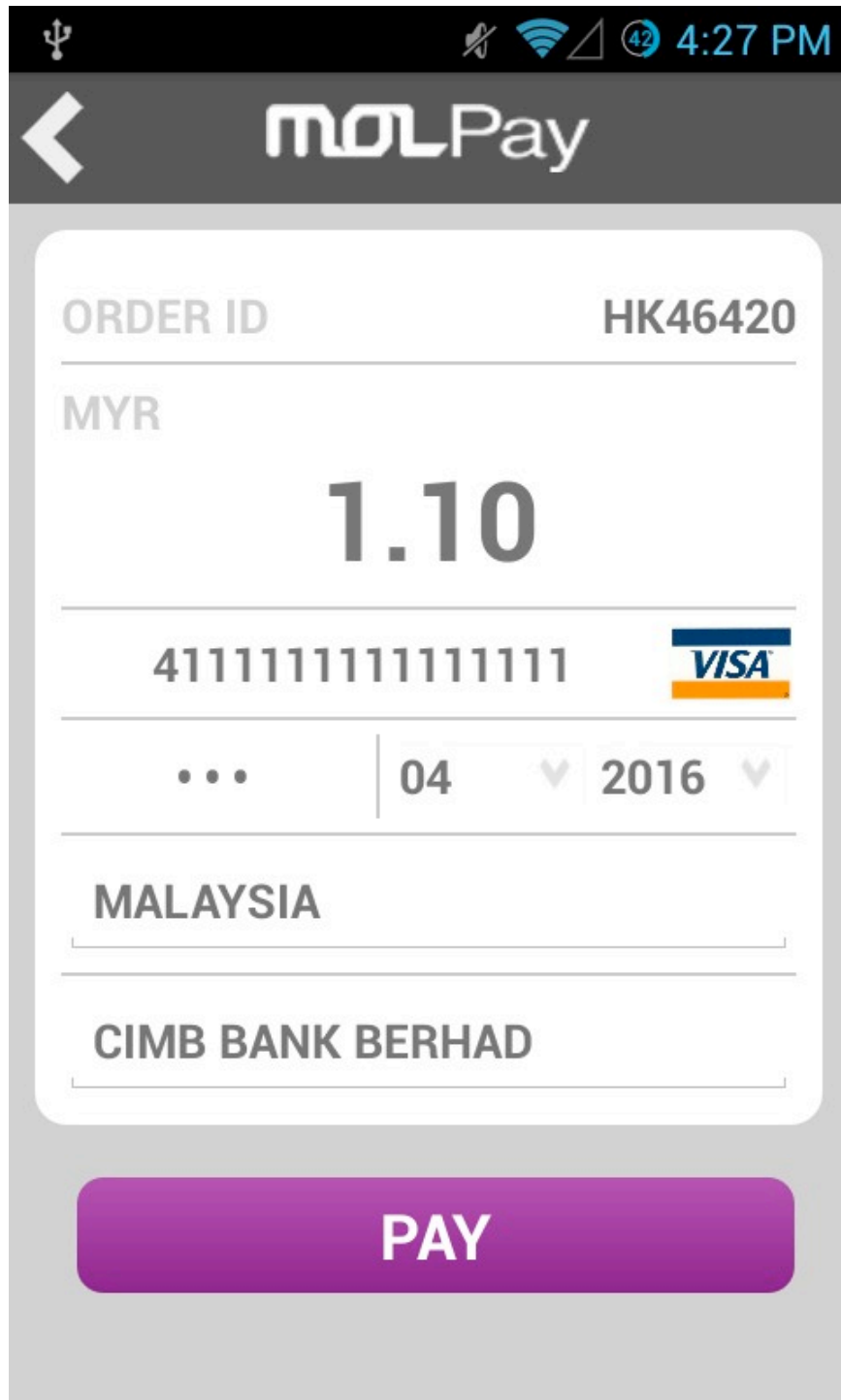
VISA MasterCard

PROCEED

## List of Channels



**Credit / Debit Card**



The image shows a mobile app interface for MOLPay. At the top, there's a status bar with icons for USB, signal, Wi-Fi, and battery, along with the time 4:27 PM. Below this is a dark header with a back arrow and the MOLPay logo. The main content area is a white card with a light gray border. It contains the following information: ORDER ID HK46420, MYR currency, a large amount of 1.10, a card number 4111111111111111, a VISA logo, an expiration date of 04/2016, the country MALAYSIA, and the bank name CIMB BANK BERHAD. At the bottom of the card is a large purple button with the word PAY in white.

ORDER ID HK46420

MYR

1.10

4111111111111111 VISA

... 04 2016

MALAYSIA

CIMB BANK BERHAD

**PAY**

## Payment Page

## List of Channels Code and Supported Currency Code

| No  | Channel Code | Channel Name         | Currency Code   |
|-----|--------------|----------------------|---|
| 1.  | credit       | Visa / Mastercard    | MYR   |
| 2.  | mobilemoney  | Mobile Money         | MYR   |
| 3.  | maybank2u    | Maybank2u            | MYR   |
| 4.  | amb          | AmOnline             | MYR   |
| 5.  | alb          | Aliance Online       | MYR   |
| 6.  | rhb          | RHB Now              | MYR   |
| 7.  | paymentasia  | China Online Banking | MYR, RM, RMB and CNY  |
| 8.  | webcash      | WEBCASH              | MYR   |
| 9.  | paypal       | PayPal               | USD, AUD, GBP, CAD, CZK, DKK, EUR, HKD, HUF, ILS, JPY, MYR, MXN, NZD, NOK, PHP, PLN, SGD, SEK, CHF, TWD and THB |
| 10. | alipay       | Alipay               | MYR, RM, USD, TWD and RMB   |
| 11. | hlb          | Hong Leong Online    | MYR   |
| 12. | cimb         | CIMB Clicks          | MYR   |
| 13. | fpx          | MEPS FPX             | MYR   |
| 14. | dragonpay    | DragonPay            | USD and PHP   |
| 15. | enetsD       | eNets Debit          | SGD   |
| 16. | polipayement | Poli Payment         | MYR, RM and AUD   |
| 17. | tenpay       | Tenpay               | MYR, RM and USD   |
| 18. | fuiou        | Fuiou                | MYR, RM and USD   |
| 19. | cash         | 7-Eleven Cash Retail | MYR   |
| 20. | esapay       | Esapay Cash Retail   | MYR   |
| 21. | senheng      | Senheng Cash Retail  | MYR   |
| 22. | singpost     | SingPost             | SGD   |