Payment Processing SDK Documentation

Overview

The Payment Processing SDK is designed to simplify payment transactions in mobile applications. It provides a seamless integration with a mock payment provider, simulating real-world payment processing scenarios using mock data. This document outlines the steps to integrate the SDK into your Android application and demonstrates its use through a sample app.

Getting Started

Prerequisites
- Android Studio 2020.3.1 (Arctic Fox) or later
- Kotlin plugin
- Min Android SDK version 24

Integration

Add the SDK to Your Project: Assuming the SDK is packaged as a module or a library, include it in your project's settings.gradle file:

CODE:

```
include ':tabapaysdk'
project(':tabapaysdk').projectDir = new File('path/to/sdk')
Or
include(":tabapaysdk")
```

Add SDK as a Dependency: In your app's build.gradle file, add the SDK module as a dependency:

CODE:

```
dependencies {
    implementation project(':tabapaysdk')
}
```

Sync Your Project: After adding the dependency, sync your project with Gradle files to ensure the SDK is properly included.

Usage

Initialization

Before making any payment transactions, initialize the SDK in your application's onCreate method or before using the SDK features:

CODE:

MockPaymentService.init(context)

Processing Payments

To process a payment, create a PaymentTransaction object and call the processPayment method:

CODE:

```
val transaction = PaymentTransaction("transactionId", "userId", "name", amount, "currency", PaymentStatus.PENDING)
val paymentResult = MockPaymentService.processPayment(transaction)

when(paymentResult) {
    is PaymentResult.Success -> // Handle success
    is PaymentResult.Failure -> // Handle failure
}
```

Managing Payment Methods

Adding a Payment Method:

CODE:

```
val paymentMethod = PaymentMethod("id", "userId", "cardNumber", "expirationDate", "cvv")
MockPaymentService.addPaymentMethod(paymentMethod)
```

Removing a Payment Method:

CODE:

MockPaymentService.removePaymentMethod("paymentMethodId")

Listing All Payment Methods:

CODE:

val methods = MockPaymentService.getAllPaymentMethods()

Handling Transaction History

To retrieve a user's transaction history, use:

CODE:

val history = MockPaymentService.getTransactionHistory("userId")

Sample Mobile Application
The sample app demonstrates the SDK's integration, showcasing functionalities such as processing payments, managing payment methods, and viewing transaction history.

Key Features
- **Recipient List:** Displays a list of recipients to whom money can be sent.
- **Transaction History:** Shows the user's past transactions.
- **Payment Process:** Facilitates the payment process using the SDK.

Running the Sample App
1. Open the project in Android Studio.
2. Run the app on a compatible Android device or emulator.
3. Explore the functionalities provided by the sample app, including sending money, managing payment methods, and viewing transaction history.

Security Considerations
While the SDK and sample app use mock data and a simulated payment provider, ensure to implement proper security measures in a real-world application, including secure data storage, encryption of sensitive information, and secure network communication.