Test Scenarios:

Smoke Testing:

Verify basic connectivity and availability of all APIs.

Ensure appropriate status codes (e.g., 200 OK) for simple requests.

Functional Testing:

Purchase API:

Verify valid purchase request is processed successfully.

Validate correct amount deduction after a successful purchase.

Test edge cases for purchase amounts (zero, negative).

Refund API:

Test valid refund request and verify refunded amount.

Ensure refunds for different transactions don't interfere.

Reversal API:

Test valid reversal request for unsettled transaction.

Ensure rejection of reversal for settled transaction.

Dispute API:

Test raising a dispute for a transaction with valid details.

Verify rejection of invalid dispute requests.

Test Cases:

Smoke Testing:

Verify accessibility of all APIs and valid status codes.

Confirm response time within acceptable range.

Functional Testing:

Purchase API:

Verify successful response for valid purchase request.

Test different payment methods.

Check error message for invalid purchase.

Refund API:

Test refund request for successful transaction and amount.

Ensure no excessive refunding allowed.

Verify rejection of refund for non-existent transaction.

Reversal API:

Test reversal request for unsettled and settled transactions.

Confirm rejection of reversal for settled transaction.

Dispute API:

Test dispute request and verify dispute status.

Ensure rejection of dispute for non-existing transaction.

Verify response for invalid or missing data.

SmokeTestingTest.java:

import org.testng.annotations.Test;

public class SmokeTestingTest {

@Test

public void testApiAccessibility() {

// Implement code to verify API accessibility and status codes

}

@Test

public void testResponseTime() {

// Implement code to confirm response time within acceptable range

}}

FunctionalTestingTest.java:

import org.testng.annotations.Test;

public class FunctionalTestingTest {

@Test

public void testPurchaseApi() {

// Implement code to test the Purchase API

}

@Test

public void testRefundApi() {

// Implement code to test the Refund API

}

@Test

public void testReversalApi() {

// Implement code to test the Reversal API }

@Test

public void testDisputeApi() {

// Implement code to test the Dispute API

}}

RegressionTestingTest.java:

import org.testng.annotations.Test;

public class RegressionTestingTest {

@Test

public void testRegression() {

// Implement code to perform regression testing

}}