TEST PLAN FOR INTEGRATION POINTS AND LAYERS

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The Document will explain about Testing processes by taking example of both the Integrations points as Use case in the Given architecture.

UseCase1:

When data is transferred from Card payment, Customer details to Integration layer

1. Test Planning/Strategy
   - QA Roles and Responsibilities
     Understanding Requirements:
     • Understanding the requirements given by Business
     Preparing Test Cases
       • Test Scenarios to be prepared by QA and reviewed by BA

     Preparing test Data

     Executing Test Cases

     Retesting Defects and Regression Testing

   - Defect Life Cycle
     Below process must be followed, in case of any Defect found
     - Raise Defect if the expected criteria are not met
     - Assign Priority and Severity as Required
     - Assign the Bug to the Concern team/Developer and request for ETA
     - Now, Once the defect is fixed, retest it
     - Also retest the impacted functionality, If applicable
     - If worked fine, close the defect
   - Testing Types (Automation/Manual)
     i.   System Testing (API Testing)
     ii.   System Regression Testing (Rest API Testing through Rest Assured)

      iii.   System Integration Testing

      iv.   Regression Testing (Automation Testing)

2. Test Strategy:

API Contract is the important part of doing API testing as it contains all required information about the API, which is to be tested.

API test Actions:

1. Verify correct HTTP status code

2. Verify response payload

3. Verify response headers

4. Verify correct application state

5. Verify basic performance check on Case creation Volumes

Test scenario categories

- Basic positive tests (happy paths)
- Extended positive testing with other given parameters
- Negative testing with valid input
- Negative testing with invalid input
- Security, authorization tests
- UI Testing on Fraud Decisioning System

3. Test Scenarios:

      i.   Verify card payment is completed successfully if Customer is not minor and Amount is >$5000

      ii.   Verify that when payment gets declined by fraud decisioning system based on below rules

     Customer is minor and amount is >$5000

      iii.   Verify that payment is completed successfully when customer post code is correct and amount is >$10000

      iv.   Verify that when payment gets declined by fraud decisioning system based on below rules

     Customer post code is unknown and amount is >$10000

v. Verify that payment is successful if Customer details including DOB is correct

vi. Verify that when payment gets declined by fraud decisioning system based on below rules
   Customer DOB is unknown

vii. Verify that payment is successful Merchant code is correct and its within NSW.

viii. Verify that when payment gets declined by fraud decisioning system based on below rules
   Merchant code is wrong or its outside of NSW and amount is >$20000

4. Test Data
   <u>Below Test Data Required:</u>
   a. Valid Customer IDs (Both Individual and Organization types)
   b. Valid Transaction ID
   c. Valid Merchant ID
   d. Valid Customer Card IDs
   e. Merchant details (Post Code)
   f. Customer Details (Name, DOB, Post Code, Address, Contact, Organization Name)
   g. Customer ID with minor age
   h. Customer ID with Post code incorrect
   i. Customer ID with no Date of birth (DOB)
   j. Merchant code of outside NSW

5. Steps
   <u>Below Test Steps/Process to be followed:</u>
   <u>Iteration:</u>
   - Requirement Analysis
   - Estimation
   - Test Scenarios preparation
   - Test Data preparation
   - Send Test Scenarios and Test Data for Review
   - Once the deployment is done to Testing environment and Review is completed then Start Testing
   - Raise if any defect found

- Once Fixed, Test the Defect and close
- Complete the Testing once all critical defects are fixed and closed also Testing Scenario coverage is completed

6. **Test Summary Report:**
Project Name:
Fraud Detection on Cards

Testing Scope:
Card Payment, Customer Details Integration with Fraud Decisioning Engine through Integration Layer

Business Outcome:
Ability to detect fraud transactions on Card

Testing Artifacts:
All test evidences need to kept in a common place

Timelines:

Phases of Testing (Environment)	Planned Start Date	Planned End date	Actual Start date	Actual End Date	Comments
System Testing					
System Regression Testing					
System Integration Testing					
Regression Testing					

Execution Status:

Feature Tested	Total Test Cases	Total Test Cases Passed	Total Test Cases Failed	Total Defects	Comments

Pass % -

Fail % -

Outstanding Defects Table:

Defect ID	Defect Description	Defect Status	Assigned To	Comment

Risk and Issues:

S No	Risk Description	Impact (High, Low, Medium)	Mitigation