Test Plan – SOAP ISBN10 Validation API

Created by Naman Sharma – Test Plan (SOAP Request)

Objective

The goal of this test plan is to ensure the quality, functionality, and reliability of the IsValidISBN13 SOAP API operation hosted at http://webservices.daehosting.com.

The service validates 13-digit ISBN numbers using checksum logic. This test plan outlines the approach to test the operation using Postman by sending SOAP 1.1 requests and evaluating the correctness of responses.

Scope

Scope of Test Plan for DataFlex Web Service – IsValidISBN13 SOAP API:

1. Functional Testing

2. Data Validation Testing

3. Error Handling Testing

4. Performance Testing

5. Compatibility Testing

6. Integration Testing

7. Regression Testing

8. Security Testing

9. Edge Case Testing

Inclusions

- Valid ISBN-13 number verification

- Invalid ISBN-13 input (wrong checksum)

- Input with invalid characters or length

- SOAP fault testing for malformed XML

- Manual testing via Postman

- Automation using Postman Collection Runner or Newman

Test Environments

QA Environment URL: http://webservices.daehosting.com/services/isbnservice.wso

Platforms:

- Windows 10 – Postman Desktop App (Chrome, Edge)

- macOS – Postman App or browser version

- Android/iOS (for Mobile Postman App)

Defect Reporting Procedure

- Tool: JIRA

- Defect Criteria: Any deviation from expected true/false response, incorrect handling of errors, invalid SOAP status code, or latency beyond threshold.

- Reporting: Tester logs the defect using a template with request/response XML and screenshots.

- Triaging: Based on severity and reproducibility.

Test Strategy

1. Test Design Techniques:

  - Boundary Value Analysis

  - Equivalence Class Partitioning

  - Error Guessing

2. Testing Stages:

  - Smoke Testing

  - Functional and Negative Testing

  - Regression and Exploratory Testing

3. Execution Approach:

- Manual execution in Postman

- Automation using Collection Runner

- Parallel test across environments

Test Schedule

Task	Duration
Test Plan Preparation	1 day
Test Case Creation	1 day
Test Execution	2 days
Report Preparation	1 day

Test Deliverables

- Test Plan Document

- Test Cases (Postman or Excel)

- Defect Reports

- Execution Report

- Final Summary Report

Entry and Exit Criteria

Entry Criteria:

- SOAP WSDL endpoint is stable and accessible

- Test data (ISBNs) is finalized

- Postman environment is configured

Exit Criteria:

- All test cases executed

- Critical bugs resolved or acknowledged

- Final test report submitted and reviewed

Test Execution

Entry Criteria:

- Functional test cases written and reviewed

- WSDL and endpoint confirmed accessible

Exit Criteria:

- All test cases executed and passed or defects logged

- Known defects reviewed and documented

Test Closure

Entry Criteria:

- Final execution and defect reports ready

Exit Criteria:

- Approval from stakeholders

- Test artifacts archived

Tools

- Test Management: Excel / Google Sheets

- Execution Tool: Postman

- Bug Tracking: JIRA

- Other Tools: Snipping Tool, Word, Newman CLI (optional)

Risks and Mitigations

Risk	Mitigation
Service Endpoint Unavailable	Perform retries, notify service owner
Inconsistent Response Format	Log defect, flag for resolution
Limited Testing Time	Prioritize high-value test cases
Postman Tool Limitation	Use SOAP UI or CURL if needed

Approvals

The following documents will be sent for review and approval:

- Test Plan

- Test Cases

- Execution Summary Report

Testing will proceed only after necessary approvals from project stakeholders.