Test Plan for SOAP API: ISBN Validation

# 1. Objective

To verify the functionality, reliability, and correctness of the `IsValidISBN10` SOAP API endpoint by testing various valid and invalid ISBN-10 values.

# 2. Scope

In Scope:  
- Functional testing of `IsValidISBN10` endpoint.  
- Positive and negative test cases with different ISBN-10 formats.

Out of Scope:  
- Performance testing, load testing, or API security testing.  
- Testing of other endpoints in the `isbnservice.wso`.

# 3. Test Items

Endpoint: POST /services/isbnservice.wso  
Host: webservices.daehosting.com  
SOAP Action: http://webservices.daehosting.com/ISBN/IsValidISBN10

Request XML Template:

<?xml version="1.0" encoding="utf-8"?>  
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">  
 <soap:Body>  
 <IsValidISBN10 xmlns="http://webservices.daehosting.com/ISBN">  
 <sISBN>string</sISBN>  
 </IsValidISBN10>  
 </soap:Body>  
</soap:Envelope>

# 4. Test Approach

- Functional Testing – Verifying if the service correctly identifies valid and invalid ISBN-10 numbers.  
- Boundary Testing – ISBN values with edge conditions (length, characters).  
- Negative Testing – Invalid formats, null values, empty string, and special characters.

# 5. Test Environment

Protocol: HTTP  
Tool(s): Postman / SOAP UI  
Headers:  
Content-Type: text/xml; charset=utf-8

# 6. Test Cases

## Positive Test Cases

|  |  |  |  |
| --- | --- | --- | --- |
| TC ID | Test Scenario | Input ISBN | Expected Result |
| TC001 | Valid ISBN-10 number | 0471958697 | Response: true |
| TC002 | Valid ISBN-10 with X checksum | 0306406152 | Response: true |

## Negative Test Cases

|  |  |  |  |
| --- | --- | --- | --- |
| TC ID | Test Scenario | Input ISBN | Expected Result |
| TC003 | Invalid ISBN-10 (wrong checksum) | 0471958698 | Response: false |
| TC004 | ISBN with length less than 10 | 12345 | Response: false |
| TC005 | ISBN with non-numeric characters | ABCD567890 | Response: false |
| TC006 | Empty ISBN field |  | Response: false |
| TC007 | Null value in ISBN field | null | SOAP Fault / false |

# 7. Exit Criteria

All test cases are executed.  
All critical defects are resolved or have acceptable workarounds.

# 8. Deliverables

Test Plan (this document)  
Test Cases (Excel/CSV)  
Test Results Report  
README.md file