Test Plan

Project: Validation of Social Security Number

Version: 1.1

Revision History

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| --- | --- | --- | --- |
| Version | Authors | Description | Date |
| 1.0 | Nathalie Elias | Creation of document | May 15 2022 |

# 1 Introduction

## Scope

## The purpose of this document is to provide the information and framework required to plan and develop the activities of the social security number validation algorithm testing process.

## Context of Tests

## Test Items

## The following items will be tested:

## - Module: Social Security Number Validation.

## Scope of the Test

## The system composed of the modules mentioned in section 2.2

## Non-functional quality factors such as performance, IT security, and usability will not be tested in this test project.

## Assumptions and Restrictions

## Assumptions:

## - The test environment will be a clone of the production environment so that new social security numbers can be calculated based on real cases.



# Test Strategy

## Testing processes

Testing for the Social Security Number Validation System will include the following test threads:

● End-to-end tests

● Unit tests (white box)

## Test Deliverables

For each test process, the following documentation must be generated:

● Specification of Test Cases

● Test Process Completion Report.

## Test Design Techniques

This section will identify the techniques that will be used for the design of the tests.

● Test cases

## Completion Criteria and Test

Testing must achieve 90% coverage of requirements and all test procedures must run without Severity 1 (high) failures.

## Metrics

The following metrics will be collected during test execution:

● Number of test cases executed.

● Number of incidents by category.

● Number of resolved incidents by category.

## Test environment requirements

### Testing environment

|  |  |
| --- | --- |
| Operating systems | Windows |

### Testing Tools

|  |  |
| --- | --- |
| Tool | Function |
| Unit test project (.NET framework) | Execution and Report of automated tests |

## 

## Suspension and resumption criteria

Suspension criteria

● One of the major features contains a bug that prevents critical areas of the system from being tested.

● The testing environment is not stable and/or does not return reliable results.

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# Activities and test estimates

The tests will be divided into the following main activities:

1. Detailed specification of test cases.

2. First test execution cycle.

3. Test completion report.

Test Cases

| **Test Case ID** | **Test Case Description** | **Test Steps** | **Test Data** | **Expected Result** |
| --- | --- | --- | --- | --- |
| T01 | Insert zeros in program input | 1. Run the program. 2. Enter “000-00-0000” in console. 3. Hit Enter | input = 000-00-0000 | False |
| T02 | Insert 666 in the first part of the SSN in program input | 1. Run the program. 2. Enter “666” in console. 3. Hit Enter | input = 666-23-9283 | False |
| T03 | Insert “990” in the first par of the SSN in program input | 1. Run the program. 2. Enter “990” in console. 3. Hit Enter | input = 990-23-9283 | False |
| T04 | Insert 2 digits in the last part of the SSN in program input | 1. Run the program. 2. Enter “321-23-82 in console. 3. Hit Enter | input = 321-23-82 | False |
| T05 | Insert 4 digits in the middle part of the SSN in the program input | 1. Run the program. 2. Enter “321-2893-4321 in console. 3. Hit Enter | input = 321-2893-4321 | False |
| TU06 | Insert a valid SSN number in the program input | 1. Run the program. 2. Write “219-28-8392” 3. Hit Enter | input = 219-28-8392 | True |
| TU07 | Insert letters in the program input | 1. Run the program. 2. Write “n49-0e-98er” 3. Hit Enter | input = n49-0e-98er | False |
| TU08 | Insert a valid SSN number in the program input | 1. Run the program. 2. Write “456-983-1294” in console 3. Hit Enter | input = 456-98-1294 | True |

**Test Completion Report**

The automated tests were executed successfully. Yield was 99% and tests were reliable