Database Editor

Test plan

Version 3.0

04/23/2020

Document Control

Approval

The Guidance Team and the customer shall approve this document.

Document Change Control

|  |  |
| --- | --- |
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Distribution List

This following list of people shall receive a copy of this document every time a new version of this document becomes available:

Guidance Team Members: Carlos Vargas, Valeria Macias, Bianca Alvarez

Customer: Dr. Steven Roach

Software Team Members: Dr. Steven Roach

Change Summary

The following table details changes made between versions of this document

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Modifier | Description |
| 1.0 | 04/05/2020 | Carlos Vargas | Test plan first release |
| 2.0 | 04/17/2020 | Carlos Vargas | Improve test plan by applying suggested changes by reviewers.  Separate tests in different test suites. |
| 3.0 | 04/22/2020 | Carlos Vargas | Redacted again some portions of test plan, address comments. |

Note: The template presented in this document was taken from:

Donaldson, S., and S. Siegel, *Successful Software Development*. Upper Saddle River, NJ: Prentice Hall, 2001, pp. 321-323.

Note: The template presented in this document was taken from: Donaldson, S., and S. Siegel, *Successful Software Development*. Upper Saddle River, NJ: Prentice Hall, 2001, pp. 321-323 and modified by Humberto Mendoza and Steve Roach.

Supplementary information is from:

Pfleeger, S. *Software Engineering, Theory and Practice*. Upper Saddle River, NJ: Prentice Hall, 1998, p. 365.

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# Introduction

This test plan is intended to cover functionality a basic table editor application. The functionalities to be tested are “compare different versions” and “check duplicate rows” This plan contains detailed steps that must be followed in order to test the given application.

## Purpose

This test plan would ensure that the given application works properly or if it has to be modified in case some errors are found. The purpose of this document is to test 2 features specifically: compare different versions and check duplicate rows. By running the specified tests, bugs could be identified for future fixes.

## Scope

This test plan aims to test the latest version of the database table editor on Github repository released by Dr. Steven Roach. The main use of this software is to modify .xml tables.

## System Overview

This is a database table editor. It contains some basic functionality. It modifies the content in an XML file by saving the file, and it creates a file for the previous version of the table. Rows and columns can be duplicated, removed, inserted.

## Suspension and Exit Criteria

All test must be performed before stopping. However, there is different levels of priority or criticality. The rating goes from 1-3. The rating goes from lowest to highest criticality. These levels reflect the importance of the test. However, all tests must be performed.

## Document Overview

The document contains the test suits with the tests to be performed. Each test reflects a different operation in the system.

## References

Assignment:

<https://piazza.com/class_profile/get_resource/k55rbh37ri6be/k8hjj7sn7hu7n0>

Pull Request:

https://github.com/CS5387/testplangroup4-team2

# Test Items and Features

This test plan covers the following features of the database editor (Marked with a X):

|  |  |
| --- | --- |
| Open |  |
| Save |  |
| Print |  |
| And Filter |  |
| Or Filter |  |
| Help |  |
| Search |  |
| Edit |  |
| Options |  |
| Check for Duplicate Rows | X |
| Compare Table to Another Version | X |

# Testing Approach

For performing tests, the application must be launched before. It also has to load a database with tables. The setup instructions are provided in next section.

|  |  |
| --- | --- |
| **Level** | **Criticality** |
| 1 | Low |
| 2 | Medium |
| 3 | High |

Table 1: Test Plan Suite A

|  |  |  |
| --- | --- | --- |
| **TEST SUITE A** | | |
| **Description of Test Suite** | Tests focus: Comparison of table versions. | |
| **Test Case Identifier** | **Objective** | **Criticality** |
| 1 | In this test the same table is compared with the exact same version of table 1. | **1** |
| 2 | In this test, the comparison is between 2 different tables. | **3** |
| 3 | In this test, a change in table is compared with the same table with no changes to get a mismatch. | **2** |
| 4 | This test uses the column selection feature to disable a column and change the content of this column to compare the same table. | **1** |

Table 2: Test Plan Suite B

|  |  |  |
| --- | --- | --- |
| **TEST SUITE B** | | |
| **Description of Test Suite** | Tests focus: Check for duplicate rows. | |
| **Test Case Identifier** | **Objective** | **Criticality** |
| 5 | This test checks for duplicate rows by using the feature and finds matches. | **3** |
| 6 | This test verifies that duplicate rows are highlighted in yellow. | **1** |
| 7 | This test checks for duplicate rows by using the feature and does not find matches. | **3** |
| 8 | This test checks for duplicate rows by using the feature and it also uses the column selection feature. | **1** |

# Test Suite A

## Initial Set Up

1. Launch dbEdit.jar file. This is the initial view of the application:

![Una captura de pantalla de una computadora

Descripción generada automáticamente]()

1. Click on the upper-left menu “File”, select “Open” and finally choose the main DB file named “Test\_DB.xml”

![Captura de pantalla de un celular con letras

Descripción generada automáticamente]()



1. The next menu illustrates the three available tables. Select any of those three.

![Imagen que contiene captura de pantalla

Descripción generada automáticamente]()

1. Tables are represented as shown in image below.

![Captura de pantalla de un celular con letras

Descripción generada automáticamente]()

## Test 1

**Objective:** Compare table CONSTRAINT\_TABLE with exact same table.

**Notes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 1 | | | | Current Status: Pending | | |
| Test title: Compare table to exact same table. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to be compared with itself. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened | COMMENTS |
| 2 | In the table editor window, Click on the File menu item. And then “Compare table to another version” | Opening folder with databases files. | | | Opening the file system with current directory. |  |
| 3 | Select the CONSTRAINT\_TABLE (XML file) to be compared with table 1 (opened table). | Compare the same table. | | | 0 mismatches: |  |
| Concluding Remarks: Test is successful if there are no mismatches. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

## Test 2

**Objective:** In this test, the comparison is between 2 different tables.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 2 | | | | Current Status: Pending | | |
| Test title: Compare CONSTRAINT\_TABLE to a different table. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to be compared with TYPE\_TABLE. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened | COMMENTS |
| 2 | Click on the File menu item. And then “Compare table to another version” | Opening folder with databases files. | | | Opening the file system with current directory. |  |
| 3 | Select the TYPE TABLE (XML file) to be compared with table 1 (opened table). | Compare the same table. | | | None columns found in other table: |  |
| Concluding Remarks:  Test successful if the error pops up. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

**Notes:** N/A

## Test 3

**Objective:** Compare table 1 with exact same table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 3 | | | | Current Status: Pending | | |
| Test title: A change in table is compared with the same table with no changes to get a mismatch. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to be compared with itself. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened | COMMENTS |
| 2 | Modify first cell of first column, place ‘1’. | The comparison has to identify this change | | | A cell is modified |  |
| 3 | Click on the File menu item. And then “Compare table to another version” | Opening folder with databases files | | | Opening the file system with current directory |  |
| 4 | Select the CONSTRAINT\_TABLE (XML file) to be compared with table 1 (opened table) | Compare the same table | | | 1 mismatch: |  |
| Concluding Remarks: Test should be considered successful if different changes are tested. Test should be performed with more than 1 mismatch. This feature does not work with many changes. It should be identified the “max amount” of mismatches that this application can find. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

**Notes:** N/A

## Test 4

**Objective:** Compare table CONSTRAINT\_TABLE with itself.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.:4 | | | | Current Status: Pending | | |
| Test title: This test uses the column selection feature to disable a column and change the content of this column to compare the same table. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to be compared with itself. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened | COMMENTS |
| 2 | Modify first cell in column “DESCRIPTION”. Remove 1 and insert 2. | The cell should not be counted in the comparison. | | | Cell is modified. |  |
| 3 | Disable column “DESCRIPTION” by clicking on the options menu time -> Column selection. Then disable the description checkbox. | Disable one column for comparison. | | | The column is disabled. |  |
| 4 | Click on the File menu item. And then “Compare table to another version” | Opening folder with databases files. | | | Opening the file system with current directory |  |
| 5 | Select the CONSTRAINT\_TABLE (XML file) to be compared with table 1 (opened table). | Compare the same table. | | | 0 mismatches:  Captura de pantalla de un celular  Descripción generada automáticamente |  |
| Concluding Remarks:  Even though the change is made, the comparison did not include the disabled column. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

**Notes:**

# Test Suite B

## Test 5

**Objective:** This test checks for duplicate rows by using the feature and finds matches.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 5 | | | | Current Status: Pending | | |
| Test title: Check for duplicate rows by using the feature and finds matches. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to search for duplicate rows. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened. | COMMENTS |
| 2 | Click on the File menu item and then select the option “Check For Duplicate Rows”. | Check for rows. | | | 3 Duplicate rows: | 3 duplicate rows are found. There are 3 rows with same information on the bottom and 2 with the same information on the top. This is why we get 3 duplicates |
| Concluding Remarks:  Test successfully passes if 3 is the result for duplicate rows. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

**Notes:**

## Test 6

**Objective:** This test verifies that duplicate rows are highlighted in yellow.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 6 | | | | Current Status: Pending | | |
| Test title: Verifies highlighted rows. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to search for duplicate rows. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened. | COMMENTS |
| 2 | Verify visually if 3 rows are highlighted with yellow. | Check for rows. | | | 5 highlighted rows: | 3 duplicate rows are found. There are 3 rows with same information on the bottom and 2 with the same information on the top. This is why we get 5 highlighted rows. |
| Concluding Remarks:  There are 3 rows with same information on the bottom and 2 with the same information on the top. This is why we get 5 highlighted rows. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

**Notes**

## Test 7

**Objective:** Check duplicate rows in CONSTRAINT\_TABLE.

**Notes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 7 | | | | Current Status: Pending | | |
| Test title: Check for duplicate rows by using the feature and does not finds matches. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to search for duplicate rows in a table with no duplicates. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened. | COMMENTS |
| 2 | Modify cells like the following example. Note that table does not have duplicate rows. | To expect 0 as the final result. | | | Every row is different: |  |
| 3 | Click on the File menu item and then select the option “Check For Duplicate Rows”. | Check for rows. | | | 0 Duplicate rows: |  |
| Concluding Remarks:  Test successfully passes if 0 is the result for duplicate rows. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

## Test 8

**Objective:** Compare table 1 with exact same table.

**Notes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 8 | | | | Current Status: Pending | | |
| Test title: Check for duplicate rows by using the feature and finds matches. Use feature “Column selection” to get more matches. | | | | | | |
| Testing approach: Select CONSTRAINT\_TABLE to search for duplicate rows. | | | | | | |
| STEP  1 | OPERATOR ACTION  Open CONSTRAINT\_TABLE from main menu after loading TEST\_DB.xml | PURPOSE  Selecting table to compare | | | EXPECTED RESULTS  The table should be opened. | COMMENTS |
| 2 | Disable column “RESTRINCTION\_TYPE” by clicking on the options menu time -> Column selection. Then disable the description checkbox. | Remove a column, to find more duplicates in | | | Captura de pantalla de un celular  Descripción generada automáticamente |  |
| 3 | Click on the File menu item and then select the option “Check For Duplicate Rows”. | Check for rows. | | | 4 Duplicate rows: | 4 duplicate rows are found. There are 4 rows with same information on the bottom and 3 with the same information on the top (after removing one of the columns). This is why we get 3 duplicates. |
| Concluding Remarks:  Test successfully passes if 4 is the result for duplicate rows. | | | | | | |
| Testing Team:  N/A | | | Date Completed: | | | |

# User Interface Testing

|  |  |
| --- | --- |
| Tests | Pass/Fail |
| The feature “Check for duplicate rows” is visible under the File menu in a table view. |  |
| The feature “Compare table to another version” is visible under the File menu in a table view. |  |
| A correct pop up window appears when using correctly “Compare table to another version” |  |
| A correct pop up window appears when using correctly “Compare table to another version” |  |
| A pop up window with proper error appears when compare two different tables. |  |

# Test Schedule

The test schedule has not been defined yet. Dates will be defined at a later date.

|  |  |  |
| --- | --- | --- |
| **Task and date** | **People** | **Description** |
|  |  |  |
|  |  |  |
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##