Database Table Editor

Test plan

Version <1.0>

04/08/2020

Document Control

Approval

The Guidance Team and the customer shall approve this document.

Document Change Control

|  |  |
| --- | --- |
| Initial Release: | 04/07/2020 |
| Current Release: | 04/07/2020 |
| Indicator of Last Page in Document: | \* |
| Date of Last Review: | 04/07/2020 |
| Date of Next Review: | 04/08/2020 |
| Target Date for Next Update: | 04/14/2020 |

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:

Steve Roach

Customer:

Software Team Members:

Stephanie Medina

Quentin L. Armstrong

Raquel B. Gonzalez

Jonathan Roman

Change Summary

The following table details changes made between versions of this document

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Modifier | Description |
| 0.1 | 04/06/2020 | Stephanie Medina | Initial information. Worked on all sections |
| 0.2 | 04/06/2020 | Stephanie Medina | Section 2 |
| 0.3 | 04/06/2020 | Stephanie Medina | Section 3 & 4 – Tests |
| 0.4 | 04/06/2020 | Stephanie Medina | Appendix – for test output |
| 0.5 | 04/07/2020 | Stephanie Medina | Formatting whole document |
| 0.6 | 04/07/2020 | Stephanie Medina | Add to section 4 |
| 0.7 | 04/08/2020 | Stephanie Medina | Formatting whole document, proofreading |
| 1.0 | 04/08/2020 | Stephanie Medina | First deliverable for team review |

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.

Table of Contents

[Document Control ii](#_Toc37254758)

[Approval ii](#_Toc37254759)

[Document Change Control ii](#_Toc37254760)

[Distribution List ii](#_Toc37254761)

[Change Summary ii](#_Toc37254762)

[1. Introduction 5](#_Toc37254763)

[1.1. Purpose 5](#_Toc37254764)

[1.2. Scope 5](#_Toc37254765)

[1.3. System Overview 5](#_Toc37254766)

[1.4. Suspension and Exit Criteria 5](#_Toc37254767)

[1.5. Document Overview 5](#_Toc37254768)

[1.6. References 5](#_Toc37254769)

[2. Test Items and Features 6](#_Toc37254770)

[2.1. Edit Menu 6](#_Toc37254771)

[2.1.1. Insert 6](#_Toc37254772)

[2.1.2. Delete 6](#_Toc37254773)

[2.1.3. Copy 6](#_Toc37254774)

[2.1.4. Paste 6](#_Toc37254775)

[2.1.5. Drag and Drop 6](#_Toc37254776)

[2.1.6. Undo 6](#_Toc37254777)

[2.1.7. Highlighting 6](#_Toc37254778)

[3. Testing Approach 7](#_Toc37254779)

[4. Test XX 8](#_Toc37254780)

[4.1. Test Case 1 8](#_Toc37254781)

[4.2. Test Case 2 9](#_Toc37254782)

[4.3. Test Plan 3 9](#_Toc37254783)

[4.4. Test Case 4 10](#_Toc37254784)

[4.5. Test Case 5 11](#_Toc37254785)

[4.6. Test Case 6 12](#_Toc37254786)

[4.7. Test Case 7 13](#_Toc37254787)

[4.8. Test Case 8 14](#_Toc37254788)

[5. User Interface Testing 14](#_Toc37254789)

[6. Test Schedule 15](#_Toc37254790)

[7. Other Sections 16](#_Toc37254791)

[8. Appendix 17](#_Toc37254792)

# Introduction

The project is a database editor that provides the user access to view and modify the data of the stored XML tables. However, the tool does not allow for any modification of the database schema. The testing strategy and the test plan for this editor tool will be broken down in this document. The initial test strategy is to target all the edit menu operations using Black Box testing.

## Purpose

The purpose of this document is to break down a test plan for the database table editor. The components of this tool have been broken down and assigned to 4 different groups and broken down into 13 teams. This particular test plan will focus on the edit menu operations.

## Scope

The target date for this test plan is April 21st, 2020. Each week starting April 8th, the team members are to upload their current versions of their test plan and provide feedback so that the following week all authors can provide the next updated version.

## System Overview

There are four main components of the system where the focus of this document will be on the edit menu operations.

## Suspension and Exit Criteria

The exit criteria for this test plan is if 60% of the test fail, the testing phase should terminate.

## Document Overview

1. *Introduction:* general information of what the document contains
2. *Test Items and Features:* describes the test items (e.g., components, classes, functions or methods) and the features to be tested
3. *Testing Approach:* describes the approach to be used to the test the system
4. *Test “x”:* information about what each test consists of such as materials, data, expected input and output, etc.
5. *User interface testing:* not applicable due to the focus being the edit menu operations
6. *Test Schedule:* this is where the schedule for testing activities are specified
7. *Other Sections:* not applicable for this scenario
8. Appendix: further details for expected output and/or visuals needed for the sections in this document

## References

CS5387. (2020, April 5). CS5387/testplangroup3-team4. Retrieved from <https://github.com/CS5387/testplangroup3-team4>

# Test Items and Features

## Edit Menu

This option allows the user to insert, delete, copy, paste, and undo. The edit option is one of the 4 options available in the menu for the tool. The specific section where this option is available is in the data table display. Since the data that is being displayed is editable, that is why this option appears here.

### Insert

This option from the edit menu is a row operation where all the rows are affected.

### Delete

This option from the edit menu is a row operation where all the rows are affected.

### Copy

This option from the edit menu will allow the user to copy any column or row they select in order to change the position of that column or row.

### Paste

This option from the edit menu will allow the user to paste whatever they copied beforehand to wherever they selected.

### Drag and Drop

An additional functionality where if the user does not want to copy and paste, they can drag and drop whatever they want.

### Undo

This option from the edit menu is any operation that affects the data. If a certain action affects the data, the user will be able to select undo in order to revert back.

### Highlighting

For this functionality, duplicate rows will be highlighted in yellow and any fields that are violating field constraints that were specified in the database description file will be highlighted in red.

# Testing Approach

The following tests are Black Box tests that focuses on the edit menu operations. This section’s purpose is to list all the test that are going to be performed. Table 1 will display the plan for testing. Each test listed will be categorized in criticality of High, Medium, or Low. The test cases will be based on what was described in section 2 and further explained in section 4.

Table 1: Test Plan

|  |  |  |
| --- | --- | --- |
| **TEST SUITE 1** | | |
| **Description of Test Suite** | **This test suite will test the principle functionalities of the Edit Menu options that are displayed in the database editor tool.** | |
| **Test Case Identifier** | **Objective** | **Criticality** |
| Test Case 1 | **Test the functionality of Insert and observe how it affects all rows and columns** | **High** |
| Test Case 2 | **Test the functionality of Delete and observe how it affects all rows and columns** | **High** |
| Test Case 3 | **Test if the copy and paste options to confirm that they work together** | **Low** |
| Test Case 4 | **Test the drag and drop functionality to make sure data is not affected** | **Low** |
| Test Case 5 | **Test a scenario where the column header is trying to be modified** | **Medium** |
| ~Test Case 6 | **Test a scenario where data is affected, and the Undo option reverts those changes** | **Medium** |
| ~Test Case 7 | **Test a scenario where data is duplicated and observe if it is highlighted yellow** | **Low** |
| Test Case 8 | **Test a scenario where field constraints are being violated and observe if is highlighted red** | **High** |

~ NOTE: This test case is recommended to test after either one of the following test cases:

Test Case 1

Test Case 2

Test Case 3

Test Case 4

~ NOTE: This test case is recommended to test after Test Case 3 due to the copy and paste function being able to assist with this.

# Test XX

The purpose of this section is to:

* document test input, specific test procedures, and outcomes.
* establish test methods,
* explain the nature and extent of each test

For each test case, complete the following:

## Test Case 1

**Objective:** Test the functionality of Insert and observe how it affects all rows and columns

**Notes:** Since the whole column and row is affected, we need to make sure that the data isn’t affected as well.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 1 | | | | Current Status: Pending | | |
| Test title: Test Insert | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2  3 | OPERATOR ACTION  Enter Edit Menu option.  Select the Insert option  Observe where the row was inserted and check if there were any changes to the data | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is the main function we are testing  Testing the functionality of the insert option | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  A new row shall be created where the user selected  A new row was created where the user selected, and no data was modified | COMMENTS  Look for insert for the next step  Usually you are to select where you want to insert so before selecting insert, select an empty spot  There are times when something is inserted and it deletes/modifies data or the insert doesn’t happen where one wanted it to |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

## Test Case 2

**Objective:** Test the functionality of Delete and observe how it affects all rows and columns

**Notes:** Since the whole column and row is affected, we need to make sure that the data isn’t affected as well.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 2 | | | | Current Status: Pending | | |
| Test title: Test Delete | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2  3 | OPERATOR ACTION  Enter Edit Menu option.  Select the Delete option  Observe where the row was deleted and check if there were any changes to the data | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is the main function we are testing  Testing the functionality of the delete option | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  The row that was selected will be deleted  The desired row that was selected was deleted without any changes to the other data | COMMENTS  Look for delete for the next step  Usually you are to select what you want to delete, so before selecting the option select a random row you want to delete  There are times when something is deleted and it either doesn’t delete it completely or it deletes the wrong thing |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

## Test Plan 3

**Objective:** Test if the copy and paste options to confirm that they work together

**Notes:** Since copy and paste go hand in hand, we need to test them together cause if we test individually, we won’t know for sure if they work.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 3 | | | | Current Status: Pending | | |
| Test title: Test Copy & Paste | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2  3 | OPERATOR ACTION  Enter Edit Menu option.  Select the Copy option  Select the Paste option | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is the main function we are testing  This is typically the next option to select after choosing to copy | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  The row that was selected will be copied to clipboard  The selected item that was copied is pasted without any changes to what was originally copied | COMMENTS  Look for copy for the next step  Usually you are to select what data you want to copy, so before selecting copy, choose a random row to copy  There are times where the data that was copied isn’t pasted or the item wasn’t copied in the first place resulting in either pasting the wrong thing or something blank |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

## Test Case 4

**Objective:** Test the drag and drop functionality to make sure data is not affected

**Notes:** Since the whole column and row is affected, we need to make sure that the data isn’t affected as well.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 4 | | | | Current Status: Pending | | |
| Test title: Test Drag & Drop | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2  3 | OPERATOR ACTION  Enter Edit Menu option.  Select a column to re-order  Drag and drop the selected column | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is the main function we are testing  Testing the functionality drag and drop | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  The system shall detect that you want to drag  The data of desired column that was dragged and dropped was not affected nor was the other data surrounding it. The columns were just rearranged and not replaced. | COMMENTS  Look for a column to re-order  There are times when the system doesn’t detect that you want to drag something and instead highlights the columns  There are times when something is dropped somewhere that already contains data and ends up deleting/replacing what was already there |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

## Test Case 5

**Objective:** Test a scenario where the column header is trying to be modified

**Notes:** The actual data inside the column cannot be modified. This is a specific constraint that was specified where the header cannot be edited

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 5 | | | | Current Status: Pending | | |
| Test title: Test Column Header | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2  3 | OPERATOR ACTION  Enter Edit Menu option.  Select a column header to edit  Attempt to modify the header name | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is to select what we want to modify  This is the main constraint we’re trying to test | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  Column header shall be visible  The system shall not allow for any modification. Either the system will not perform any action or prompt the user that it cannot be modified. | COMMENTS  Look for a column header for the next step  There’s an assumption that there could be a prompt indicating that one cannot modify this. If not, it would be assumed that no action is performed. |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

## Test Case 6

**Objective:** Test a scenario where data is affected, and the Undo option reverts those changes

**Notes:** There’s an assumption that this option reverts back to the step before any action has been performed. This test can be performed immediately after any other test case has been performed such as, Test Case 1-4.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 6 | | | | Current Status: Pending | | |
| Test title: Test Undo | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2  3 | OPERATOR ACTION  Enter Edit Menu option.  Select the Undo option  Analyze data | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is the main function we are testing  Make sure if original state was recovered | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  The system shall detect the last action that was performed and revert those changes  Changes were reverted correctly, and the table appears to be like how it was before performing an action | COMMENTS  Assuming that you are to perform this test after test case 1-4, you should already be in this section  There’s a possibility that the system doesn’t “save” the last state before performing an action |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

## Test Case 7

**Objective:** Test a scenario where data is duplicated and observe if it is highlighted yellow

**Notes:** The copy and paste functionality can assist with this test so it is recommended to this right after test case 3.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 7 | | | | Current Status: Pending | | |
| Test title: Test Duplicate | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2 | OPERATOR ACTION  Enter Edit Menu option.  Copy and Paste a column | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is to create a duplicate | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  The system shall detect that there’s a duplicate and highlight the duplicate yellow | COMMENTS  Assuming that you are to perform this test after test case 3, you should already be in this section  There’s a possibility that system won’t detect a duplicate and not highlight it |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

## Test Case 8

**Objective:** Test a scenario where field constraints are being violated and observe if is highlighted red

**Notes:** This test is assuming that one has access to see what field constraints were specified in the database description file

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No.: 8 | | | | Current Status: Pending | | |
| Test title: Test Drag & Drop | | | | | | |
| Testing approach: Black Box testing approach. The detailed code for function is unknown and therefore the tester shall follow the steps described in this table. No specific data is needed aside from the already given testing data in order to fill up the database. See appendix section for details. | | | | | | |
| STEP  1  2 | OPERATOR ACTION  Enter Edit Menu option.  Modify a field where it violates the constraints based on the database description file | PURPOSE  This is to make sure you are in the correct section we are trying to test  This is the main function we are testing | | | EXEPCTED RESULTS  After selecting options, the available functions shall appear  The system shall detect a violation and highlight that component red | COMMENTS  Begin login for the database description file as well  There’s a possibility that system won’t detect a violation and not highlight it |
| Concluding Remarks:  Pending | | | | | | |
| Testing Team:  Pending | | | Date Completed:  Pending | | | |

# User Interface Testing

This section focuses on the interaction between the user and the system. However, the goal for this test plan does not target the user interface so this section does not apply.

# Test Schedule

This section is where the schedule for testing activities is specified.

|  |  |  |
| --- | --- | --- |
| **Task and date** | **People** | **Description** |
| Task 1 – 04/08/2020 | Stephanie Medina | Generate a test plan for this specific section of the tool |
| Task 2 – 04/09/2020 ~ 04/14/2020 | Whole Team | Review and comment on each other’s test plan |
| Task 3 –  04/09/2020 ~ 04/21/2020 | Whole Team | Aside from review, attempt to perform all tests and determine if it was a good test or not |
| Task 4 – 04/14/2020 | Stephanie Medina | Review comments given by other team members and modify test plan |
| Task 5 – 04/21/2020 | Whole Team | Deliver final test plan |

# Other Sections

Other sections that may appear in a test plan (but not required for this course). Therefore, this section does not apply.

# Appendix

Please refer to GitHub Repository under references where there is already existing data to input for the tool. This is mainly to get the database populated. However, we are not specifically checking the data in this test plan, we are only focused on the functionalities of the operations in the Edit Menu as well as whether the data has been affected or not.

More data is to be determined for this section as the project moves along.