# Test Plan 7751 Evaluation

## Section 1.

The section was well written and conveys the purpose and overview of the document very well. However, in 1.4 critical tests are mentioned, but never mentioned again in later sections. Leaving the reader to speculate what are the critical tests? The document also says all test cases will be executed due to the number of tests provided. There is no explanation behind this reasoning.

## Section 2.

The test items and explanations for them are a bit ambiguous. The explanation for the features is written well for their purpose and descriptions. The formatting is a bit difficult to read because of the spacing.

## Section 3.

Good description of how it is going to be approached. The objective, test case identifier, and criticality are missing in this section. I believe they can still be adjusted to accommodate the test plans in section 4. How the tests are going to be conducted and how to conduct them is very clear and informative towards the reader.

## Section 4.

The formatting is a bit confusing however once the formatting is understood it becomes clear what the test should be. I believe the formatting is [values] (test being conducted) : expected output. However, this means the expected output for sortable is not provided. T specification of values is good. Document makes it clear what range of values should be tested. I believe that a few different test cases involving negative values are missing. Like a how table of negative values with a 2x2 size or greater, mixing negative and positive values, and sorted/unsorted negative values. sorTable output was unspecified. I will assume that they mean that the Table is “sorted”.

## Section 5.

Formatting is difficult to understand, specifically the formatting of the bullets. To fix the issue the indentation should be fixed with different bullet types at different levels. I don’t believe this section is needed for this assignment. The actual specifications for how to handle them are high level and I believe that is good.

## Section 6.

Test Schedule is clear. I don’t know if all the testing should be done in one session. The time specification is good; however, the testing environment is ambiguous and not defined.

Conclusion.

The test plan was written well. It was a bit ambiguous at times towards what should be the output or what the semantics of a topic was, other then that everything was specified well.

# Functionality According to Test Plan

Testing for methods isSorted & sorTable:

## Test case: (empty table of size 0, the file is completely blank)

Input:

“”

Output:

Exception in thread "main" java.lang.NumberFormatException: For input string: ""

at java.lang.NumberFormatException.forInputString(NumberFormatException.java:65)

at java.lang.Integer.parseInt(Integer.java:592)

at java.lang.Integer.parseInt(Integer.java:615)

at Table.GetTable(Table.java:85)

at Table.GetTable(Table.java:67)

at Runner.main(Runner.java:9)

Summary:

Test case failed. Test output was supposed to return true, however an error occurred during runtime.

## Test case: [0](table with a single element)

Input:

“0”

Output:

[[I@1540e19d]

0

true

The count is 1

0

True

Summary:

Test Case Passed is sorted returned true and the sortable test also returned true as according to the expected return value.

## Test case: [-1] (table with negative element)

Input:

“-1”

Output:

[[I@1540e19d]

-1

true

The count is 1

-1

true

Summary:

Test Case Passed is sorted returned true and the sortable test also returned true.

## Test case: [Integer.MAX\_VALUE] (table with single biggest element)

Input:

“2147483647”

Output:

[[I@1540e19d]

2147483647

true

The count is 1

2147483647

true

Summary:

Test Case Passed is sorted returned true and the sortable test also returned true as according to the expected return value.

## Test case: [Integer.MAX\_VALUE+1] (table with single biggest element)

Input:

“2147483648”

Output:

Exception in thread "main" java.lang.NumberFormatException: For input string: "2147483648"

at java.lang.NumberFormatException.forInputString(NumberFormatException.java:65)

at java.lang.Integer.parseInt(Integer.java:587)

at java.lang.Integer.parseInt(Integer.java:615)

at Table.GetTable(Table.java:85)

at Table.GetTable(Table.java:67)

at Runner.main(Runner.java:9)

Summary:

Test Case Passed because an error was expected for this test case. The error was caused by Table.getTable

## Test case: [1,2,3,4] (sorted table with normal set of values 2x2)

Input:

“1 2

3 4”

Output:

[[I@1540e19d]

1 2

3 4

true

The count is 2

1 2

3 4

Summary:

Test Case Passed because table was sorted and the issortable method returned true as according to the expected return value.

## Test case: [4,3,2,1] (unsorted table with normal set of values 2x2)

Input:

“4 3

2 1”

Output:

[[I@1540e19d]

4 3

2 1

The count is 110

false

The count is 2

1 2

3 4

True

Summary:

Test Case Passed because table was sorted and the issortable method returned false as according to the expected return value.

## Test Plan Results

According to the test plan it is not specified whether the tests are critical or what is non-critical. It did pass more than 80% of the tests, if the tests were not critical then the software is ready to be exported. The test plan was easy to execute and easy to evaluate the results for.