

**CS 1632 Software Quality Assurance**

**Exercise 1**

Member 1 Name:

Member 2 Name:

1. **Traceability Matrix**

FUN-ARGS-NUMBER:

FUN-ARGS-INVALID: INVALID\_NUMBER\_OF\_THREADS\_LARGER\_THAN\_JAVA\_MAXINT, MAXIMUM\_INTEGER\_FOR\_NUM\_THREADS

FUN-DISPLAY-RESULTS:

FUN-DISPLAY-ITERATIONS:

FUN-SMALL-NUM: Test\_Case\_3, Test\_Case\_4

1. **Test Cases**

IDENTIFIER: INVALID\_NUMBER\_OF\_THREADS\_LARGER\_THAN\_JAVA\_MAXINT

TEST CASE: Entering an integer larger than the maximum integer allowed for Java in the number of threads, while other inputs are valid.

PRECONDITIONS: Running on a windows computer, in the command line with java version 1.8.0\_221.

EXECUTION STEPS: Enter an integer larger than the maximum java integer for the number of threads along with valid inputs for the rest of the inputs.

POSTCONDITIONS: System should display the reason that it cannot run and shut down. No java exception or stack trace should be displayed to the user directly.

IDENTIFIER: MAXIMUM\_INTEGER\_FOR\_NUM\_THREADS

TEST CASE: Entering an integer that is the maximum integer allowed for Java in the number of threads, while other inputs are valid.

PRECONDITIONS: Running on a windows computer, in the command line with java version 1.8.0\_221.

EXECUTION STEPS: Enter an integer that is the maximum java integer for the number of threads along with valid inputs for the rest of the inputs.

POSTCONDITIONS: System should display the reason that it cannot run and shut down. No java exception or stack trace should be displayed to the user directly.

IDENTIFIER: SIGKILL\_DURING\_WARNING\_FOR\_LESS\_THAN\_100\_NUM\_OF\_TIMES

TEST CASE: Entering an integer that is the maximum integer allowed for Java in the number of threads, while other inputs are valid.

PRECONDITIONS: Running on a windows computer, in the command line with java version 1.8.0\_221.

EXECUTION STEPS: Enter an integer that is the maximum java integer for the number of threads along with valid inputs for the rest of the inputs.

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PRECONDITIONS: Running on a windows computer, in the command line with java version 1.8.0\_221.

EXECUTION STEPS: Enter an integer that is the maximum java integer for the number of threads along with valid inputs for the rest of the inputs.

POSTCONDITIONS: System should display the reason that it cannot run and shut down. No java exception or stack trace should be displayed to the user directly.

IDENTIFIER: SPACE\_IN\_INPUT\_DURING\_WARNING

TEST CASE: Entering an integer that is the maximum integer allowed for Java in the number of threads, while other inputs are valid.

PRECONDITIONS: Running on a windows computer, in the command line with java version 1.8.0\_221.

EXECUTION STEPS: Enter an integer that is the maximum java integer for the number of threads along with valid inputs for the rest of the inputs.

POSTCONDITIONS: System should display the reason that it cannot run and shut down. No java exception or stack trace should be displayed to the user directly.

1. **Defects**

IDENTIFIER:

SUMMARY:

DESCRIPTION:

REPRODUCTION STEPS:

EXPECTED BEHAVIOR:

OBSERVED BEHAVIOR: