Code 8618 seems to work as intended. While testing against Test Plan 7423, the only differences in expected output were output that is not required in the assignment specifications that were under expected output on the test plan.

The following test plan 7423 was used to test the software:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Features to be tested** | **Tasks** | **Expected Output** |
| T1 | A table NXM | Give as an input a table (3X4) | Exit Program  Print message that a table has to be square NXN |
| T2 | A table NxN such as one i in T is = 0 | Give as an input the table [[1,0,2], [2,3,6], [8,9,7]] | Sort Table  Return True when the table is Sorted  [[0,1,2], [2,3,6], [7,8,9]] |
| T3 | A table NXN such that all i in T are the same numbers | Give as an input the table [[2,2,2], [2,2,2], [2,2,2]] | Return True since table is already sorted |
| T4 | A table NXN such as some i in T are negative numbers | Give as an input the table [[1,0,-2], [2,3,-6], [8,-9,7]] | Sort Table  Return True when the table is Sorted |
| T5 | An empty table | Give as an input an empty table | Exit Program |
| T6 | A table NXN such that i has more than one digit | Table: [[10,0,-20], [20,30,-600], [8000,-900,700]] | Sort Table  Return True when the table is Sorted |

T- Table

i – Integer in T

As mentioned above, the software passed the tests besides T5, but test T5’s expected output is incorrect since only exiting the program is not a requirement from the assignment specification.

Other tests were entered to see how the software would handle certain inputs not listed on test plan 7423. We tested other inputs not mentioned in test plan 7423 such as / and : (to check NaN or ascii values near 0-9), doubles as inputs, null space (“”) as an input, integer boundaries etc. and the program behaved as expected. These include the following inputs followed by the result after the “->” symbol:

1 / 2 3 -> error (ascii near 0-9)

1 : 2 3 -> error (ascii near 0-9)

1 2.1 3 4 -> error (double value)

1 “” 2 3 -> error (null value)

-2147483648 1 2 2147483647 -> true (integer BVA)

-2147483649 1 2 3 -> error (integer BVA)

1 2 3 2147483648 -> error (integer BVA)

1 -> true (1 integer matrix)

-3 -4 1 1 2 3 4 5 6 -> false (non sorted row)

-1 2 3 4 -2 5 6 7 8 -> false (non sorted col)

1 then sort-> true

All of those inputs again behaved as expected. So it can be concluded the software behaves as expected.