Pass condition 1- table is sorted in ascending order in row and column

Pass condition 2- no change

Fail condition 1- table is incorrectly sorted

Fail condition 2- no change

**All tests are to be done with a perfect square matrix, unless otherwise instructed**

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| --- | --- | --- |
| **TEST SUITE <Sortable>** | | |
| **Description of Test Suite** | **Is to test where the sortable will fail, and to have a log of it, main purpose is to sort the table as required** | |
| **Test Case Identifier** | **Objective** | **Result** |
| 1. | **Test with all positive numbers, both row and column are unsorted** | **Pass: Pass condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 2. | **Test with a mixture of positive and negative numbers with columns not sorted, but the rows are** | **Pass: Pass Condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 3. | **Test with a mixture of positive and negative numbers with columns sorted, but the rows are not** | **Pass: Pass condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 4. | **Test with positive numbers only, columns are sorted, rows are not** | **Pass: Pass condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 5. | **Test with positive numbers only, rows are sorted, columns are not** | **Pass: Pass condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 6. | **Test with positive numbers only, rows and columns are partially sorted** | **Pass: Pass condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 7. | **Test will positive numbers only all numbers are sorted in ascending order in rows and column** | **Pass: Pass condition 1**  **Pass: Pass condition 2**  **Fail: Fail condition 1** |
| 8. | **Test will negative numbers only, rows and columns unsorted** | **Pass: Pass Condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 9. | **Test with the same number only** | **Pass: Pass condition 1**  **Pass: Pass condition 2**  **Fail: Fail condition 1** |
| 10. | **Test will a 2d table of [MaxInt][MaxInt], and is populated with randomly generated numbers ranging from -MaxInt to MaxInt** | **Pass: Pass Condition 1**  **Fail: Fail condition 1**  **Or**  **Fail condition 2** |
| 11. | **Test will a 2d table of [MaxInt +1][MaxInt+1], and is populated with randomly generated numbers ranging from -MaxInt -1 to MaxInt+1** | **Should Fail array out of bounds** |
| 12. | **Test with integers that have decimals** | **should fail due to number formatting** |
| 13. | **Test with string chars** | **Should fail due to not being integers** |
| 14. | **Test with special characters** | **Should fail due to not being integers** |
| 15. | **Test with integers that do not make a perfect square matrix, example [5][4] matrix** | **Should fail due to not being a square matrix** |
| 16. | **Test with a matrix and having integers having an operation in it. Ex. 5 4**  **4 (5+2)** | **Should fail due to table not being able to comprehend special chars** |
| 17. | **Test with fractions that make a whole integer** | **Should fail due to table not being able to comprehend special chars** |
| 18. | **Test with a null table** | **Should fail due to not having a table** |
| 19. | **Test with empty table** | **Should fail due to not having a table** |