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| Test case ID | Description | Pre-condition | Test data | Expected result | Actual data | Pass/Fail |
| 1 | Get input from the file input.txt, convert the comma separated input structure in to 3X3 matrix | The values in the input file need to be properly structured with 9 entries only | 1,1,1  0,2,5  2,5,-1 | A list with 3 rows 3 columns | [[1.0, 1.0, 1.0],  [0.0, 2.0, 5.0],  [2.0, 5.0, -1.0]] | Pass |
| 2 | Use the parsed list to obtain corresponding minors of all the values in 0th row. | Requires a parsed 3X3 matrix as input. | [[1.0, 1.0, 1.0], [0.0, 2.0, 5.0], [2.0, 5.0, -1.0]] | A list with three 2X2 matrices. Each is the corresponding matrix of values in the 0th row. | [[[2.0, 5.0], [5.0, -1.0]],  [[0.0, 5.0], [2.0, -1.0]],  [[0.0, 2.0], [2.0, 5.0]]] | Pass |
| 3 | Calculate determinant based on the input by user and calculated minor matrices of each values in 0th row. | Requires a parsed 3X3 matrix and a list of 2X2 minor matrices of each values in 0th row | >Parameter input one:  [[1.0, 1.0, 1.0],  [0.0, 2.0, 5.0],  [2.0, 5.0, -1.0]]  >Parameter input two:  [[[2.0, 5.0], [5.0, -1.0]],  [[0.0, 5.0], [2.0, -1.0]],  [[0.0, 2.0], [2.0, 5.0]]] | A determinant value of the 3X3 matrix | -21.0 | Pass |
| 4 | Take a 2X2 matrix as input and return its determinant. Determinant can be calculated by ad – bc where:  [[a, b],  [c, d]] | Minor matrices are needed to be calculated before this function. | [[2.0, 5.0], [5.0, -1.0]] | A determinant of 2X2 matrix | -27.0 | Pass |
| 5 | Take calculated determinant and return Boolean value. Return True if value is 0 (singular) and False if value is non-zero (non-singular) | Requires a calculated determinant of a matrix | -21.0 | If the determinant is non-zero it should return False or else return True | False | Pass |