

Enter the dimension of the square matrix : 4

Enter the entries the matrix rowwise: [1 1 0 3; 2 1 -1 1; 3 -1 -1 2; -1 2 3 -1]

Given matrix is:

| | | | |
|----|----|----|----|
| 1 | 1 | 0 | 3 |
| 2 | 1 | -1 | 1 |
| 3 | -1 | -1 | 2 |
| -1 | 2 | 3 | -1 |

Crout's LU decomposition of the given matrix is:

| | | | | | | | |
|---------|---------|--------|----------|--------|--------|--------|--------|
| 1.0000 | 0 | 0 | 0 | 1.0000 | 1.0000 | 0 | 3.0000 |
| 2.0000 | -1.0000 | 0 | 0 | 0 | 1.0000 | 1.0000 | 5.0000 |
| 3.0000 | -4.0000 | 3.0000 | 0 | 0 | 0 | 1.0000 | 4.3333 |
| -1.0000 | 3.0000 | 0 | -13.0000 | 0 | 0 | 0 | 1.0000 |

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