

Peter Julius M. Estacio  
Grouped with Nino de Mesa and Osh Ong  
ENGG 27.01  
November 18, 2025

### Screenshot of Project 3: Gauss Elimination Output

In accordance with the project specifications, the following test matrix was encoded in a file named 'matrix' and used to test the program's functionality. The basic test is specified below:

-2.8	-4.4	8.8	-1.7	2.0
-3.3	-9.2	-2.4	-8.6	1.5
-7.0	-6.7	-2.6	-9.3	1.7
0.2	-4.8	-9.7	-7.3	-6.9

The program does not require a file name extension for matrix files. The screenshot of the encoded matrix file is shown below:

```
Coding > Project 3 > ESTACIO, Peter > ≡ matrix
1  -2.8 -4.4 8.8 -1.7 2.0
2  -3.3 -9.2 -2.4 -8.6 1.5
3  -7.0 -6.7 -2.6 -9.3 1.7
4  0.2 -4.8 -9.7 -7.3 -6.9
```

The program was then ran, using the basic matrix test file as input. The screenshot of the program's output given by the 'matrix' file is shown below:

```
=====
Gauss Elimination Program
=====

Please input the name of your matrix file (defaults to 'matrix'):

Augmented Matrix read from 'matrix':
-2.8 | -4.4 | 8.8 | -1.7 | 2 |
-3.3 | -9.2 | -2.4 | -8.6 | 1.5 |
-7 | -6.7 | -2.6 | -9.3 | 1.7 |
0.2 | -4.8 | -9.7 | -7.3 | -6.9 |

Solution:
-3.15224383
-3.30749430
-1.46687960
4.98277479
```

Verifying the program's results with the given solution below, the program's functionality is as expected and is working as intended.

The solution should have these values:

-3.15224383
-3.3074943
-1.4668796
4.982774792