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Assignment: Project - Milestone 2

Source Code:

https://github.com/aidilaqif/SKM3002---Mathematics-for-Multimedia-for-Computing/tree/main/src%20code/Project/Milestone%202

Sample Output for Linear System with Solution:

```
Welcome to the Linear Algebra Solver!
This program can solve a system of linear equations or find the inverse of a matrix.

Choose an option:
1. Solve a system of linear equations
2. Find the inverse of a matrix
Enter 1 or 2: 1

Enter the number of variables: 3

Enter the coefficient matrix A:
  Enter row 1 (space-separated numbers): 1 1 1
  Enter row 2 (space-separated numbers): 1 -1 2
  Enter row 3 (space-separated numbers): 2 0 3

Enter the constants vector b (space-separated numbers): 3 2 1

The system of linear equations has no solution.
```

Sample Output for Linear System with No Solution:

```
Welcome to the Linear Algebra Solver!
This program can solve a system of linear equations or find the inverse of a matrix.

Choose an option:
1. Solve a system of linear equations
2. Find the inverse of a matrix
Enter 1 or 2: 1

Enter the number of variables: 3

Enter the coefficient matrix A:
  Enter row 1 (space-separated numbers): 2 1 -1
  Enter row 2 (space-separated numbers): -3 -1 2
  Enter row 3 (space-separated numbers): -2 1 2

Enter the constants vector b (space-separated numbers): 8 -11 -3

Solution vector x is:

  2.0
  3.0
  -1.0
```

Sample Output for Inverse Matrix:

```
Welcome to the Linear Algebra Solver!
This program can solve a system of linear equations or find the inverse of a matrix.

Choose an option:
1. Solve a system of linear equations
2. Find the inverse of a matrix
Enter 1 or 2: 2

Enter the size of the matrix (n x n): 2

Enter the matrix A:
  Enter row 1 (space-separated numbers): 4 7
  Enter row 2 (space-separated numbers): 2 6

Inverse of matrix A is:

  [0.6, -0.7]
  [-0.2, 0.4]
```