MATRIX OPERATION

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PROJECT OVERVIEW

This Matrix Project is made by using Java-language. It is designed to perform various mathematical operations on matrices. Matrices are fundamental mathematical constructs used in numerous fields. I have made this project so that any one can solve matrix problem effeciently and instantly .This matrix project include operations like Addition,Subtraction,Multiplication,inverse etc. Basically in my point of view getting right solutions of matrices is not very easy,sometime there are kind of questions whose solutions are not available in platforms like google,youtube etc.and student stuck on that particular problem.This project help them in checking there answers and provide the correct answer.

1. Matrix class

- For all matrix operation one class has made.
- This class contain methods that perform different matrix operation.

2. Main class

- The main class handles user inputs and utilizes object of the matrix class to perform different operation.
- Has used switch statement which according to which needen operation executes

Conclusion

The code provided offers a versatile set of matrix operations, allowing you to perform common tasks such as addition, subtraction, multiplication, inversion, finding the adjoint, cofactor, skew-symmetric, and asymmetric matrices etc. These functionalities are essential in various fields, including linear algebra, physics, and engineering.

This code provides a useful tool for performing these matrix operations, enabling you to work with matrices effectively and efficiently. It can be extended to include additional matrix-related operations and functionalities as needed.

OUTPUT :-
Enter the number of rows and columns of matrix A: 2×3

Enter the elements of matrix :

4 2 5
1 3 -6
Enter the number of rows and columns of matrix B: 2×3

Enter the elements of matrix :

1 0 2
3 1 4
Choose an operation:

1. Matrix Addition
2. Matrix Subtraction
3. Matrix Multiplication
4. Matrix Inverse
5. Matrix Adjoint
6. Matrix Cofactor
7. Matrix SkewSymmetric
8. Matrix SkewAsymmetric
9. Matrix Transpose
10. Matrix Rank

Selected choice: 1

Matrix A + B:

5.0 2.0 7.0
4.0 4.0 -2.0