GENERIC MATRIX LIBRARY

Generic Programming Project

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Abstract

A matrix is a two-dimensional data structure made of m rows and n columns, therefore having a total of m*n elements.

Our goal is to create a matrix library which supports different data types like int, float, double, and on which basic operations like displaying the cardinality, degree of the matrix, no. of elements present in the matrix, transpose of the matrix etc. can be performed with ease.

The library will include different initializations of the container, iterators, singular operations, binary operations, operations with generic scalar variables and display functions.

The operations that the library supports:

- Transpose
- Addition, Multiplication, Subtraction
- Addition, Multiplication, Subtraction, Division with a scalar
- Resize
- Determinant
- Adjacent
- Cofactor
- Inverse
- Power of Matrix