

Garsha-Misam

Amir garsha Iravani | October 8, 2021

Matrix

```
# int colSize  
# int rowSize  
# vector<vector<double>> matrix
```

```
+ Matrix()  
+ explicit Matrix(const int n)  
+ Matrix(int r, int c);  
+ explicit Matrix(vector<double> values)  
+ Matrix(const Matrix &otherMatrix)  
+ void setValue(int r, int c, double val)  
+ double getValue(int r, int c) const  
+ void clear()  
+ ~Matrix()  
+ friend ostream& operator<<(ostream &os, const Matrix& obj)  
+ friend bool operator==(const Matrix& lhs, const Matrix& rhs)  
+ friend bool operator!=(const Matrix& lhs, const Matrix& rhs)  
+ Matrix& operator++()  
+ Matrix operator++(int)  
+ Matrix& operator--()  
+ Matrix operator--(int)  
+ friend void swapMatrix(Matrix& first, Matrix& second)  
+ Matrix& operator=( Matrix other)  
+ Matrix& operator+=(const Matrix& rhs)  
+ friend Matrix operator+(Matrix lhs, const Matrix& rhs)  
+ Matrix& operator-=(const Matrix& rhs)  
+ friend Matrix operator-(Matrix lhs, const Matrix& rhs)  
+ Matrix& operator*=(const Matrix& rhs)  
+ friend Matrix operator*(Matrix lhs, const Matrix& rhs)  
+ int getColSize() const  
+ int getRowSize() const
```