

matrix.cpp / matrix.hpp

protected:

vector<vector<double>> myVector;
static constexpr double TOLERANCE = 0.01;

public:

matrix();
matrix(int n);
matrix(int r, int c);
matrix(double arr[], int arraySize);
void set_value(int r, int c, double val);
double get_value(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++ (); //prefix
matrix operator++ (int x); //postfix
matrix& operator=(matrix rhs);
friend void mySwap(matrix& first, matrix& second);
friend matrix operator+(matrix lhs, const matrix& rhs);
friend matrix operator-(matrix lhs, const matrix& rhs);
matrix& operator+=(const matrix& rhs);
matrix& operator-=(const matrix& rhs);
friend matrix operator*(matrix lhs, const matrix& rhs);
matrix& operator*=(const matrix& rhs);
int getCol();
int getRow();
vector<vector<double>> getVector();

is a

GooglePageRank.cpp / GooglePageRank.hpp

private:

double p{0.85};
vector<vector<double>> S; //importance matrix

public:

matrix importanceMatrix(matrix m);
double getSumCol(int x, matrix m);
matrix teleportationMatrix(matrix m);
matrix transitionMatrix(matrix m1, matrix m2);
matrix markov(matrix m);
void print(matrix m);

Driver Class

main.cpp

int main();

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