

Bonus Assignment

Task: Write a user driven program to determine the type of relation in a given matrix.

Input:

Program should take $n \times n$ matrix as input. Value n will be provided by the user.

Output:

Type(s) of relation the input matrix posses.

Sample IO:

Input:

$$\begin{bmatrix} 1 & 0 & 1 \\ 0 & 1 & 0 \\ 1 & 0 & 1 \end{bmatrix}$$

Output:

Reflexive: yes

Symmetric: yes

Anti-symmetric: no

Transitive: yes