Step-1

$$A = \begin{bmatrix} 1 & 1 \\ 2 & 2 \end{bmatrix}$$

$$A^{T} = \begin{bmatrix} 1 & 2 \\ 1 & 2 \end{bmatrix}$$

 $\neq A$

Therefore A is an unsymmetrical matrix.

Step-2

