## Step-1

$$A = \begin{bmatrix} a_{11} & a_{12} & - & a_{1n} \\ a_{21} & - & - & a_{2n} \\ - & - & - & - \\ a_{n1} & a_{n2} & - & a_{nn} \end{bmatrix}$$

Suppose

The cofactor of each entry  $a_{ij}$  is  $A_{ij} = 0$ 

So, the determinant of A is  $(-1)^{1+1} a_{11} A_{11} + (-1)^{1+2} a_{12} A_{12} + ... + (-1)^{1+n} a_{1n} A_{1n}$ 

$$= \sum_{j=1}^{n} \left(-1\right)^{1+j} a_{1j}\left(0\right)$$

=0

## Step-2

Now, the inverse of A is given by  $A^{-1} = \frac{C^{T}}{|A|}$ 

$$= \frac{C^T}{0}$$
 does not exist.