

## Step-1

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

Suppose

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

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

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

$$= 0$$

## Step-2

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

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