

Define the problem

- We are going to classify **L-matrix** and **I-matrix**.
- We have two classes, one of them is for **L-matrix** and the other is for **I-matrix**.
- If we are given **L-matrix**, perceptron Algorithm have to return $output = \begin{bmatrix} 1 \\ 0 \end{bmatrix}$
- If we are given **I-matrix**, perceptron Algorithm have to return $output = \begin{bmatrix} 0 \\ 1 \end{bmatrix}$
- If none of them are given to us, perceptron Algorithm have to return $output = \begin{bmatrix} 0 \\ 0 \end{bmatrix}$

$$L - Matrix = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 0 \\ 1 & 1 & 1 \end{bmatrix}$$

$$I - Matrix = \begin{bmatrix} 0 & 1 & 0 \\ 0 & 1 & 0 \\ 0 & 1 & 0 \end{bmatrix}$$