Row Space:- If A is mxn matrix then the subspace of R^n spanned by the Row vectors of A is called Row space of A.

Column Space:-

If A is mxn matrix then the subspace of R^n spanned by the column vectors of A is called the column space.

Null Space :-

The solution space of the homogenious system of equation $Ax = 0$ whish is subospace of R^n is called the null space.

Question: $A = \begin{bmatrix} 1 & 2 & 3 & 2 \\ 3 & 0 & 1 & 8 \\ 2 & -2 & -2 & 6 \end{bmatrix}$

$$Ax = 0$$

$$\begin{bmatrix} 1 & 2 & 3 & 2 \\ 3 & 0 & 1 & 8 \\ 2 & -2 & -2 & 6 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$