

Types of Matrix:

- Row Matrix (row vector) : A matrix having a single row is called a row matrix.

$$A = [a_{ij}]_{1 \times n} = [a_{11} \quad a_{12} \quad a_{13} \cdots a_{1n}]_{1 \times n}$$

Example: $B = [a \quad b \quad c]_{1 \times 3}$

- Column Matrix (column vector) : A matrix having a single column is called a column matrix.

Example: $B = \begin{bmatrix} a \\ b \\ c \\ d \end{bmatrix}_{4 \times 1}$

$$A = [a_{ij}]_{m \times 1} = \begin{bmatrix} a_{11} \\ a_{21} \\ \vdots \\ a_{m1} \end{bmatrix}_{m \times 1}$$

- Matrices consisting of one row or one column are called vectors.