

# Mathematics in Everyday Life

## \*Applications of matrix\*

**Name** : Harinatha Reddy P

**E-Mail** : harinatha.reddy@cmr.edu.in

**Presentation Topic** : Matrices

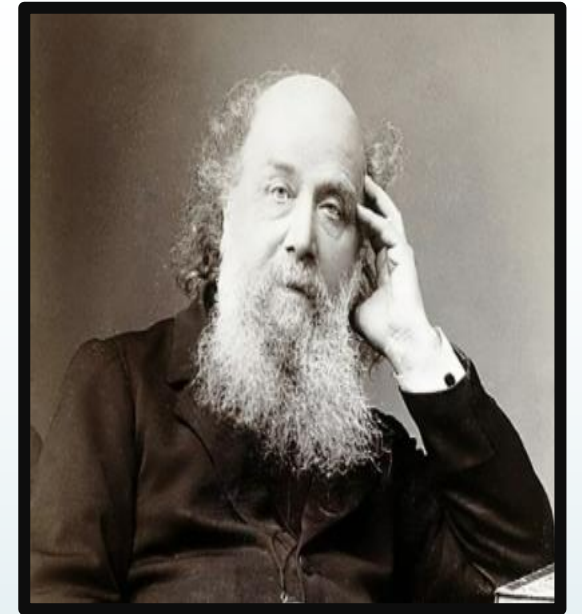
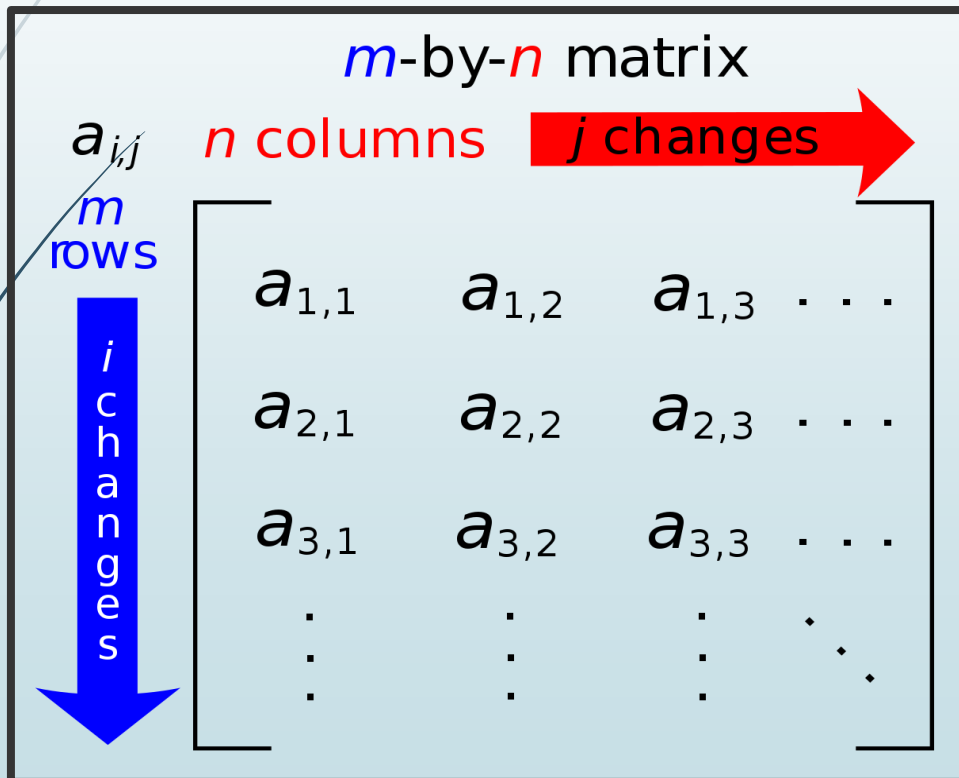




**M A T**  
**R I X**

# >Matrix

**Definition:** A Matrix is a rectangular array of numbers arranged in rows and columns



James Sylvester

> In 19th-century

# TYPES OF MATRIX

- 1) Row matrix
- 2) Column matrix
- 3) Null matrix
- 4) Square matrix
- 5) Diagonal matrix
- 6) Upper triangular matrix
- 7) Lower triangular matrix
- 8) Symmetric matrix
- 9) Skew -symmetric matrix
- 10) Horizontal matrix
- 11) Vertical matrix
- 12) Identity matrix

## Types of Matrices

Row Matrix  
 $(a \ b \ c)$

Column Matrix  
Vector Matrix  
 $\begin{pmatrix} a \\ b \\ c \end{pmatrix}$

Zero Matrix  
Null Matrix  
 $\begin{pmatrix} 0 & 0 \\ 0 & 0 \\ 0 & 0 \end{pmatrix}$

Diagonal Matrix  
 $\begin{pmatrix} a & 0 & 0 \\ 0 & b & 0 \\ 0 & 0 & c \end{pmatrix}$

Scalar Matrix  
 $\begin{pmatrix} a & 0 & 0 \\ 0 & a & 0 \\ 0 & 0 & a \end{pmatrix}$

Unit Matrix  
 $\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$

Upper Triangular Matrix  
 $\begin{pmatrix} a & b & c \\ 0 & d & e \\ 0 & 0 & f \end{pmatrix}$

Lower Triangular Matrix  
 $\begin{pmatrix} a & 0 & 0 \\ b & c & 0 \\ d & e & f \end{pmatrix}$

# APPLICATION OF MATRIX



## Animation





# References ;

➤ Google

➤ [Application of Matrices In Real Life - YouTube](#)

THANK YOU