Elementary Matrices

An elementary matrix, E, is one that differs by I_n by one row operation
Note:

1. Every E is invertible
2. Every E is square

For example,
$\begin{bmatrix} 1 & 0 & 0 \\ 2 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$ is an elementary matrix as it differs from I_3 by one row operation ($R_2 = R_2 - 2R_1$)

What Do They Represent

Each elementary matrix represents a row operation.