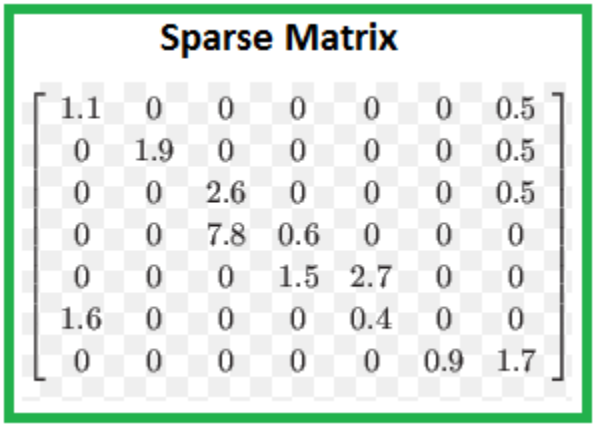
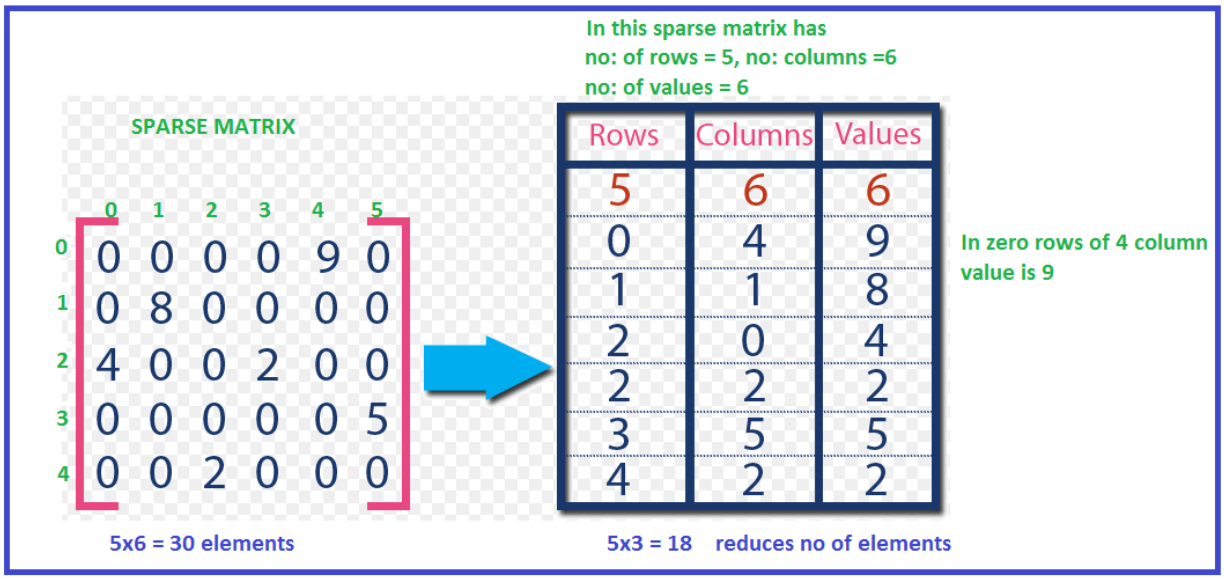
SPARSE MATRIX OR SPARSE ARRAY

It is 2D array matrix.

It has maximum number of zeros.

It has minimum number of non-zeros.





Q: Why we use Sparse Matrix?

Ans:

It reduces the scanning time/computing time.

It has less storage memory required, because there is lesser non zero element as compare to more zero element.

In memory we store only non zero elements.

WHAT IS THE MEANING OF SPARSITY

If a sparse matrix has only 1% non-zero entries, I ask this matrix has 1% Sparsity.

SPARSE DATA AND MISSING DATA

Sparse data means that many of the values are zero, but you know that they are zero.

Missing data means that you don't know what some or many of the values are.

SPARSE MATRIX AND DENSE MATRIX

Sparse matrices have lots of zero values. Dense matrices do not.