Information Retrieval systems have:

1. A set of basic representative key words called as ***Index Terms***.
2. Index terms mainly as noun or all the distinct words (after disregarding the stop words).
3. *Search engines* assumes all the words as index terms*.*
4. Properties of index terms:
   1. Useful
   2. Less Useful

*Since all the terms are not equally useful for representing the document contents.*

1. The importance of the index terms is represented by the weights associated to them.

If,

* ki represents an index term
* dj represents a document.
* t represents total no. of indices.
* K = (k1, k2, k3, k4, …, kt)
* ***Wij >= 0***is a weight associated with (ki,dj) and is described as the function of ki beingpresent in dj.
* ***Wij* = 0** denotes that the term did not appear in/belong to the document.

Below parameters are used (mostly) in vector model,

* ***vec(dj) =* (*W1j, W2j, ……, Wtj*)** is the weighted vector associated with document **dj.**
* ***gi(vec(dj)) = Wij*** , is a function which returns the weight associated with the pair (ki,dj)