# Word net:

WordNet is a lexical database for the English language

It groups English words into sets of synonyms called synsets, provides short definitions and usage examples, and records the various semantic relations between these synonym sets.

WordNet is often used for tasks such as text classification, semantic parsing, and word sense disambiguation, as well as for creating new word-sense disambiguation algorithms.

Synset, not the word, is the fundamental unit of WordNet.

## Part

MultiWordNet for differernt language

**Synonymy** : synonyms words

**Hypernymy** : refers to the relationship between a general term (a hypernym) and a specific instance of that term (a hyponym)

**Hpernym** is a more general category,

**Hyponym** is a specific member of any category.

• Hypernym: Vehicle

• Hyponyms: Car, motorcycle, truck, boat

**Holonym** is a word that describes a whole object or concept.

e.g : "body" is a holonym of "arm"

Holonyms can be obtained using the member\_holonyms() or part\_holonyms() or substance\_holonyms() methods

# WUP

Wu-Palmer Similarity (WUP Similarity) is a measure of semantic similarity between two synsets (sets of synonyms) in WordNet.

The similarity score is calculated as the depth of the least common hypernym (lch) divided by the sum of the depths of the individual synsets.

WUP Similarity(synset1, synset2) = 2 \* depth(lch(synset1, synset2)) / (depth(synset1) + depth(synset2))

* synset1 and synset2 are the two synsets being compared
* lch(synset1, synset2) is the least common hypernym of synset1 and synset2
* depth(synset) is the depth of synset in the WordNet hierarchy, where the root node (the most general term) has depth 0 and all other nodes have depth n+1 where n is the depth of the parent node

Its range 0 to 1.

 Senseval corpus