

MES College of Engineering Pune-01
Department of Computer Engineering

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| Name of Student: | Class: |
| Semester/Year: | Roll No: |
| Date of Performance: | Date of Submission: |
| Examined By: | Subject: LPVI (E-V NLP) |

Assignment No. 5

Aim: Morphology is the study of the way words are built up from smaller meaning bearing units. Study and understand the concepts of morphology by the use of add delete table.

Theory:

What is Morphology?

- Morphology is the study of the way words are built up from smaller meaning bearing units, morphemes. A morpheme is often defined as the minimal meaning-bearing unit in a language. So for example the word fox consists of a single morpheme (the morpheme fox) while the word cats consists of two: the morpheme cat and the morpheme -s.
- The morpheme is meaningful linguistic unit consisting of a words (such as dog) or a word element (such as the -s at the end of dogs) that can't be divided into smaller meaningful parts. Adjective: morphemic.
- The word is a speech sound or a combination of sounds, or its representation in writing, that symbolizes and communicates a meaning and may consist of a single morpheme or a combination of morphemes.
- In linguistics, morphology is the identification, analysis and description of the structure of a given language's morphemes and other linguistic units, such as root words, affixes, parts of speech, intonation/stress, or implied context (words in a lexicon are the subject matter of lexicology).
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Types of morphemes:-

Free morphemes, like town and dog, can appear with other lexemes (as in town hall or dog house) or they can stand alone, i.e., "free".

Bound morphemes like "un-" appear only together with other morphemes to form a lexeme. Bound morphemes in general tend to be prefixes and suffixes. **Derivational morphemes** can be added to a word to create derive) another word: the addition of "-ness" to "happy," for(example, to give "happiness." They carry semantic information.

Inflectional morphemes modify a word's tense, number aspect, and so on, without deriving a new word or a word in a new grammatical category (as in the "dog" morpheme if written with the plural marker morpheme "-s" becomes "dogs").They carry grammatical information.

Zero Morphemes A zero morpheme is a morpheme that is realized by a phonologically null affix (an empty string of phonological segments). In simpler terms, a zero invisible affix. It is also called a null morpheme, the process of morpheme is an adding a null morpheme is called zero affixation, null derivation or zero derivation.

Inflectional and Derivational :-all affixes are bound and they are of two types: derivational morphemes and inflectional morphemes. Morphology “is concerned with two quite different phenomena: derivation and inflection.

Derivation has to do with the way morphemes get attached as affixes to existing lexical forms or stems in the process of word formation”.

Inflectional morphology “does not create new words but adapts existing words so that they operate effectively in sentences. It is not a process of lexical innovation but of grammatical function.

The differences between them are many, yet the most important ones are as follows:

- Many natural languages mainly uses prefixes and suffixes to express inflectional and derivational morphology.

- English has a relatively simple inflectional system: only nouns, verbs, and sometimes adjectives can be inflected,

- English Inflectional morphology is relatively simple and includes suffixes like (-s, -ed and –ing).(•Arabic inflectional and derivational morphology are very Complexes.

A prefix is a letter or a group of letters attached to the beginning of a word that partly indicates its meaning. For example, the word prefix itself begins with a prefix—pre-, which generally means "before" Understanding the meanings of the common prefixes can help us deduce the meanings of new words that we encounter.

| Prefix | Suffix |
|--------|----------------|
| Co | Copilot |
| Dis | Disappear |
| Macro | Macroeconomics |
| Un | Unfinished |
| Uni | Unicorn |
| Tri | Tricycle |

A suffix is a letter or a group of letters attached to the end of a word to form a new word or to alter the grammatical function of the original word. For example, the verb read can be made into the noun reader by adding the suffix - er; read can be made into the adjective readable by adding the suffix –able Understanding the meanings of the common suffixes can help us deduce the meanings of new words that we encounter.

| Suffix | Example |
|--------|-----------------|
| Al | Refusal |
| Dom | Freedom,kingdom |

Objective:-

The Objective of the experiment is understanding the morphology of a word by the use of Add-Delete table.

Procedure:-

STEP 1: Select a word root.

STEP 2: Fill the add-delete table and submit.

STEP 3: If wrong, see the correct answer or repeat STEP1.

Questions:

1. What is morphological analysis of words?
2. What is a word in morphology?
3. How many morphemes are in a word?
4. What is the difference between a word and a morpheme?
5. Are morphemes phonemes?

