

# Exact Dictionary

The Exact Dictionary class is one of the base ways to examine and determine the meaning of words in the Ling Pipe NLP Processor. It compares words against a set of words and only if the word(s) match 100% it will report a match.

## Constants

Chunk Score – A double variable that is required by the exact dictionary chunker, the only valid entry is 1.00.

## Class Variables

Dictionary Type – A String for the name for the dictionary. This variable is what tag will be for the word(s) that are matched to the dictionary

Dictionary – The variable type that is created by this class and what is used by the chunker to perform the comparison operations

## Constructors

### Primary

The only constructor that this class contains, it requires the class variable Map Dictionary and the file name that contains a [Enter] delimited list of words that will be part of the dictionary. In the file each line contains one match, a match can contain 1 to infinite words. The constructor initializes the Dictionary variable, sets the Dictionary Type variable and calls the create dictionary method

# Private Methods

## Create Dictionary

Creates an array list of words from the file passed to the constructor, uses the array items to create dictionary entries then adds them to the class dictionary. Prints the number of entries and title of dictionary to the system console for de-bugging purposes.

## Read File

Reads the file passed in the constructor and creates an array list of strings, each string containing one line of the file. This file must reside in the Resources folder and should have exactly 1 entry per line.

# Public Methods

## Get Dictionary

Returns the created dictionary

# Integration Information

## Listen Class

The listen class calls this class to create many exact dictionaries it uses to tag words.

# Listen

## Class Variables

Dictionaries – The exact dictionaries used for per word / phrase tagging populated during constructor call.

Ner Model Chunker – the Natural Entity Recognition portion of the natural language set. In a future implementation it will be its own class like the Exact Dictionary.

Speak – The Speak class of parent gale, while unused It has the potential to be used.

## Constructors

### Primary

Runs the Fills dictionaries method, populates the NER chunker, assigns the speak. The only argument is the speak class.

## Private Methods

### Fill Dictionaries

Takes no arguments, adds the exact dictionaries by calling the [exact dictionary constructor](#_Primary) needed for this current implementation, which are Allergy, Family, Illness, Immunization, and answer.

### Populate ner Chunker

Creates the Natural Entity Recognition file used for later processing. For now, the implementation simply reads a file and creates the Chunker but I plan for it to more elaborate and less error prone.

### Tag Sentence

For each word in the sentence it runs the [tag word](#_Tag_Word) method. It also calls the [tag phrases](#_Tag_Phrases) method.

### Tag Word

### Tag Phrases

### Tag Words Exact Dictionary

### Tag Phrase Exact Dictionary

### Tag Phrase First Best Named Entity

### Get Words in String

## Public Methods

### Convert String to Sentence

## Integration Information

### Sentence

# Word

## Class Variables

Word

Tags

Parts Of Speech

## Constructors

### Primary

## Public Methods

### Mentions

### Get word

### Set word

### Get tags

### Add tag

### Set tags

### Get parts of speech

### Set parts of speech

## Integration Information

Sentence

# Phrase

## Class Variables

Words in Phrase

Tag

## Constructors

### Primary

## Public Methods

### Get words in phrase

### Get tag

## Integration Information

### Sentence

# Sentence

## Class Variables

Words

Full Sentence

phrases

## Constructors

### Primary

## Private Methods

### Break String into Words

## Public Methods

### Mentions

### Get Full Sentence

### Add Phrase

### Get words