

## Tokens (Lexical Analysis)

The **tokens' regular expressions** are as follows. The capitalized names are the actual token types to be returned to the parser.

**Words:** **returned token type**

(vowel | vowel **n** | consonant vowel | consonant vowel **n** |  
consonant-pair vowel | consonant-pair vowel **n**)^+

if it ends in a vowel lower case

**WORD1**

if it ends in l | E

**WORD2**

**Where consonants are:**

b d g h j k m **n** p r s t w y z (note that d,j,w,y,z do not start consonant pairs)

**consonant pairs are:**

by

gy

hy

ky

my

**ny**

py

ry

**ch** (note that c is not listed as a consonant)

**sh**

**ts**

**and vowels are:**

a, i, u, e, o (but l and E uppercase are allowed)

**Punctuation:** **returned token type**

.

**PERIOD** (for end of a sentence)

<b>Sample words are:</b>	<b>showing the parts:</b>	
aoi	WORD1 i ending	(a-o-i)
okashii	WORD1 i ending	(o-ka-shi-i)
agE	WORD2 E ending	(a-gE)
tatakl	WORD2 l ending	(ta-ta-kl)
nyuuryoku	WORD1 u ending	(nyu-u-ryo-ku)
panda	WORD1 a ending	(pan-da)
hon	WORD1 n ending	(hon)

**Reserved words:** **returned token type**

(English translation are found below the words for your convenience)

These are a subset of Words.

Verb Markers:

masu  
masen  
mashita  
masendeshita  
desu  
deshita

VERB  
VERBNEG  
VERBPAST  
VERBPASTNEG  
IS  
WAS

Particles:

o  
wa  
ni

OBJECT  
SUBJECT  
DESTINATION

watashi, anata, kare, kanojo, sore  
(I/me) (you) (he/him) (she/her) (it)  
mata  
(Also)  
soshite  
(Then)  
shikashi  
(However)  
dakara  
(Therefore)

PRONOUN  
  
CONNECTOR  
  
CONNECTOR  
  
CONNECTOR  
  
CONNECTOR

eofm

EOFM (end of file marker)

### Assumptions:

You may assume that each token is preceded and followed by blanks.  
e.g. watashi wa gakkou ni ikl mashita .

You may assume that all words are in **lower case** except for I and E in some cases.

You may also assume that there is an **eofm marker** at the end of the input file.