

P&P 2):

to kenize (text) {

list = []

begin = 0

end = 0

current = 0

while (current < text.length) {

while (text[current+1] ∈ {a, -, z, A, -, z, 0, -, 9}) {

current++

}

end = current - 1

if (text[begin:current] is not in list)

list.add(text[begin:current])

begin = current + 1

current++

}

}

- eg. "O'kenedy, hasn't gone to S."

after
of complete
excution of
the outer loop

	begin	end	current	list
0	0	0	0	[]
1	2	0	2	[0]
2	10	8	10	[0, kenedy]
3	15	13	15	[0, kenedy, hash]
4	17	15	17	[0, kenedy, hash, t]
5	22	20	22	[0, kenedy, hash, t, gone]
6	25	23	25	[0, kenedy, hash, t, gone, to]
7	27	25	27	[0, kenedy, hash, t, gone, to, S]

$O(n)$: each element of the text will be checked of validity by using the index "current" for exact one time, that leads to the linear run time with respect to the number of the characters in text, namely the input length.