

Table 1: Tokens in Go (As specified by the "Lexical Elements" section in Go spec)

| Token                | Token Name    | Token Class      | Informal Description (regex)                                | Formal Description                                            | Example(s)            |
|----------------------|---------------|------------------|-------------------------------------------------------------|---------------------------------------------------------------|-----------------------|
| Identifier           | tok_id        | identifier       | at least one char, alphanumeric with .                      | $[_a-zA-Z][_a-zA-Z0-9]^*$                                     | i, myId, _abc, z_var1 |
| Package Identifier   | tok_pid       | identifier       | at least one char, alphanumeric, cannot be blank identifier | $[_a-zA-Z] \text{ OR } [_a-zA-Z][\_a-zA-Z0-9][\_a-zA-Z0-9]^*$ | main, _abc            |
| (                    | tok_lparen    | punctuation      | -                                                           | $[()]$                                                        | -                     |
| )                    | tok_rparen    | punctuation      | -                                                           | $[()]$                                                        | -                     |
| {                    | tok_lcurly    | punctuation      | -                                                           | $[{}]$                                                        | -                     |
| }                    | tok_rcurly    | punctuation      | -                                                           | $[{}]$                                                        | -                     |
| ;                    | tok_semicolon | punctuation      | -                                                           | $[\;]$                                                        | -                     |
| Main                 | tok_main      | reserved keyword | letters "m" "a" "i" "n"                                     | <code>main\$</code>                                           | -                     |
| Package Declaration  | tok_package   | reserved keyword | letters "p" "a" "c" "k" "a" "g" "e"                         | <code>package\$</code>                                        | -                     |
| Function Declaration | tok_func      | reserved keyword | letters "f" "u" "n" "c"                                     | <code>func\$</code>                                           | -                     |
| EOF                  | tok_eof       | reserved         | -                                                           | $[\Z]$                                                        | -                     |
| Import               | tok_imp       | reserved keyword | letters "i" "m" "p" "o" "r" "t"                             | <code>import\$</code>                                         | -                     |
| Variable declaration | tok_var       | reserved keyword | letters "v" "a" "r"                                         | <code>var\$</code>                                            | -                     |