

Table 1

Token Type	Matching Input (Token created for the longest match)	Data
TOKEN_IDENTIFIER	Regex: [a-zA-Z][a-zA-Z0-9_]*	Store identifier in the identifier field (maintain case).
TOKEN_INTEGER	Regex: (0 [1-9][0-9]*)	Store value as a 32-bit integer (overflowing as necessary) in the integer field.
TOKEN_CHARACTER	‘ escape/ch ‘ escape = '\n' '\t' '\0' '\"' '\\' ch = any printable ascii character (determined by isprint ())	Store the character in the character field.
TOKEN_STRING	“ escape/ch* “ escape = '\n' '\t' '\0' '\"' '\\' ch = any printable ascii character (determined by isprint ())	Store the string in the string field.
TOKEN_KW_INT	“int” (case insensitive)	None
TOKEN_KW_CHAR	“char” (case insensitive)	None
TOKEN_KW_CONST	“const” (case insensitive)	None
TOKEN_KW_STRUCT	“struct” (case insensitive)	None
TOKEN_KW_BOOL	“bool” (case insensitive)	None
TOKEN_KW_IF	“if” (case insensitive)	None
TOKEN_KW_ELSE	“else” (case insensitive)	None
TOKEN_KW_TRUE	“true” (case insensitive)	None

TOKEN_KW_FALSE	"false" (case insensitive)	None
TOKEN_KW_RETURN	"return" (case insensitive)	None
TOKEN_KW_FOR	"for" (case insensitive)	None
TOKEN_KW_CONTINUE	"continue" (case insensitive)	None
TOKEN_KW_BREAK	"break" (case insensitive)	None
TOKEN_KW_NULL	"null" (case insensitive)	None
TOKEN_SYM_PLUS	'+'	None
TOKEN_SYM_MINUS	'_'	None
TOKEN_SYM_TIMES	'*'	None
TOKEN_SYM_SLASH	'/'	None
TOKEN_SYM_PLUSPLUS	'++'	None
TOKEN_SYM_MINUSMINUS	'--'	None
TOKEN_EQUAL	'='	None
TOKEN_EQUALEQUAL	'=='	None
TOKEN_BANGEQUAL	'!='	None
TOKEN_GREATER,	'>'	None
TOKEN_GREATEREQUAL	'>='	None
TOKEN_LESS	'<'	None
TOKEN_LESSEQUAL	'<='	None
TOKEN_SYM_ANDAND	'&&'	None
TOKEN_SYM_OROR	' '	None
TOKEN_SYM_NOTNOT	'!'	None
TOKEN_SYM_AND	'&'	None
TOKEN_SYM_OR	' '	None
TOKEN_SYM_XOR	'^'	None
TOKEN_SYM_NOT	'~'	None

TOKEN_SYM_DOT	‘.’	None
TOKEN_SYM_ARROW	‘->’	None
TOKEN_SYM_OPENPREN	‘(‘	None
TOKEN_SYM_CLOSEPREN	‘)’	None
TOKEN_SYM_OPENBRACE	‘{‘	None
TOKEN_SYM_CLOSEBRACE	‘}’	None
TOKEN_SYM_COMMA	‘,’	None
TOKEN_SYM_SEMICOLON	‘;’	None
TOKEN_ERR	Any input not matching anything in the table and not discarded (see discarded tokens).	Stores the token contents in the error field.