REGULAR EXPRESSION

*Reserved Words*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| C | C++ | Proposed Language | Regular Expression | Token |
| main | main | !Start | (!)(S/s)(T/t)(A/a)(R/r)(T/t) | !Start |
| String | String | String | (S/s)(T/t)(R/r)(I/i)(N/n)(G/g) | String |
| Bool | Bool | Boolean | (B/b)(O/o)(O/o)(L/l)(E/e)(A/a)(N/n) | Boolean |
| int | int | Number | (N/n)(U/u)(M/m)(B/b)(E/e)(R/r) | Number |
| float | float | Decimal | (D/d)(E/e)(C/c)(I/i)(M/m)(A/a)(L/l) | Decimal |
| printf | cout | Write | (W/w)(R/r)(I/i)(T/t)(E/e) | Write |
| scanf | cin | Read | (R/r)(E/e)(A/a)(D/d) | Read |
| if | if | If | (I/i)(F/f) | If |
| else | else | Else | (E/e)(L/l)(S/s)(E/e) | Else |
| else if | else if | ElseIf | (E/e)(L/l)(S/s)(E/e)(I/i)(F/f) | ElseIf |
| switch | switch | Switch | (S/s)(W/w)(I/i)(T/t)(C/c)(H/h) | Switch |
| case | case | Choice | (C/c)(H/h)(O/o)(I/i)(C/c)(E/e) | Choice |
| default | default | Default | (D/d)(E/e)(F/f)(A/a)(U/u)(L/l)(T/t) | Default |
| break | break | Stop | (S/s)(T/t)(O/o)(P/p) | Stop |
| continue | continue | Jump | (J/j)(U/u)(M/m)(P/p) | Jump |
| for | for | For | (F/f)(O/o)(R/r) | For |
| do | do | Do | (D/d)(O/o) | Do |
| while | while | While | (W/w)(H/h)(I/i)(L/l)(E/e) | While |
| true | true | True | (T/t)(R/r)(U/u)(E/e) | True |
| false | false | False | (F/f)(A/a)(L/l)(S/s)(E/e) | False |
| - | - | Start | (S/s)(T/t)(A/a)(R/r)(T/t) | Start |
| - | - | End | (E/e)(N/n)(D/d) | End |
| - | - | End! | (E/e)(N/n)(D/d)(!) | End! |
| && | && | And | (A/a)(N/n)(D/d) | And |
| || | || | Or | (O/o)(R/r) | Or |
| - | - | Fixed | (F/f)(I/i)(X/x)(E/e)(D/d) | Fixed |
| \n | \n | Newline | (N/n)(E/e)(W/w)(L/l)(I/i)(N/n)(E/e) | Newline |
| \t | \t | Tab | (T/t)(A/a)(B/b) | Tab |

*Reserved Symbols*

|  |  |  |
| --- | --- | --- |
| Reserved Symbols | Regular Expression | Token |
| + | (+) | + |
| - | (-) | - |
| \* | (\*) | \* |
| / | (/) | / |
| % | (%) | % |
| ++ | (+)(+) | ++ |
| -- | (-)(-) | -- |
| == | (=)(=) | == |
| != | (!)(=) | != |
| > | (>) | > |
| < | (<) | < |
| >= | (>)(=) | >= |
| <= | (<)(=) | <= |
| ! | (!) | ! |
| = | (=) | = |
| += | (+)(=) | += |
| -= | (-)(=) | -= |
| \*= | (\*)(=) | \*= |
| /= | (/)(=) | /= |
| . | (.) | . |
| , | (,) | , |
| “” | (“)(”) | “” |
| () | (()()) | () |
| [] | ([)(]) | [] |
| @ | (@) | @ |

*Identifier*

|  |  |
| --- | --- |
| Regular Expression | Token |
| (lowercase) (lowercase/uppercase/numbers/9 | Id |

*Literals*

|  |  |
| --- | --- |
| Regular Expression | Token |
| (nonzero)(numbers/8 | Numberlit |
| (nonzero) (numbers/8(.)(numbers)( numbers/4 | Decimallit |
| (“)(ascii)(ascii\*(“) | Stringlit |
| (True/False) | Booleanlit |