Universidade Federal de Alagoas
Instituto de Computação
Ciência da Computação

Nova - Lexer v2

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Sumário

1 Outputs

1.1 Hello World

```
 1  [( Sequence: void, Token Category: 29, Position: (0, 0))
 2  , ( Sequence: main, Token Category: 31, Position: (0, 4))
 3  , ( Sequence: (, Token Category: 23, Position: (0, 8))
 4  , ( Sequence: ), Token Category: 24, Position: (0, 9))
 5  , ( Sequence: {, Token Category: 25, Position: (0, 10))
 6  , ( Sequence: printOut, Token Category: 30, Position: (1, 0))
 7  , ( Sequence: (, Token Category: 23, Position: (1, 8))
 8  , ( Sequence: "AloMundo!", Token Category: 4, Position: (1, 9))
 9  , ( Sequence: ), Token Category: 24, Position: (1, 20))
10  , ( Sequence: ;, Token Category: 22, Position: (1, 21))
11  , ( Sequence: }, Token Category: 26, Position: (2, 0))
12  , ( Sequence: ;, Token Category: 22, Position: (2, 1))
13  ]
```

1.2 Fibonacci

```
 1  [( Sequence: int, Token Category: 20, Position: (0, 0))
 2  , ( Sequence: fibonacci, Token Category: 1, Position: (0, 3))
 3  , ( Sequence: (, Token Category: 23, Position: (0, 12))
 4  , ( Sequence: int, Token Category: 20, Position: (0, 13))
 5  , ( Sequence: n, Token Category: 1, Position: (0, 16))
 6  , ( Sequence: ), Token Category: 24, Position: (0, 17))
 7  , ( Sequence: {, Token Category: 25, Position: (0, 18))
 8  , ( Sequence: int, Token Category: 20, Position: (1, 0))
 9  , ( Sequence: f1, Token Category: 1, Position: (1, 3))
10  , ( Sequence: =, Token Category: 5, Position: (1, 5))
11  , ( Sequence: 0, Token Category: 3, Position: (1, 6))
12  , ( Sequence: ;, Token Category: 22, Position: (1, 7))
13  , ( Sequence: int, Token Category: 20, Position: (2, 0))
14  , ( Sequence: f2, Token Category: 1, Position: (2, 3))
15  , ( Sequence: =, Token Category: 5, Position: (2, 5))
16  , ( Sequence: 1, Token Category: 3, Position: (2, 6))
17  , ( Sequence: ;, Token Category: 22, Position: (2, 7))
18  , ( Sequence: int, Token Category: 20, Position: (3, 0))
19  , ( Sequence: fi, Token Category: 1, Position: (3, 3))
20  , ( Sequence: =, Token Category: 5, Position: (3, 5))
```

21 , (Sequence: 0, Token Category: 3, Position: (3, 6))
22 , (Sequence: ;, Token Category: 22, Position: (3, 7))
23 , (Sequence: **if**, Token Category: 15, Position: (5, 0))
24 , (Sequence: (, Token Category: 23, Position: (5, 2))
25 , (Sequence: n, Token Category: 1, Position: (5, 3))
26 , (Sequence: ==, Token Category: 7, Position: (5, 4))
27 , (Sequence: 0, Token Category: 3, Position: (5, 6))
28 , (Sequence: or, Token Category: 13, Position: (5, 7))
29 , (Sequence: n, Token Category: 1, Position: (5, 9))
30 , (Sequence: ==, Token Category: 7, Position: (5, 10))
31 , (Sequence: 1, Token Category: 3, Position: (5, 12))
32 , (Sequence:), Token Category: 24, Position: (5, 13))
33 , (Sequence: {, Token Category: 25, Position: (5, 14))
34 , (Sequence: shoot, Token Category: 17, Position: (6, 0))
35 , (Sequence: 1, Token Category: 3, Position: (6, 5))
36 , (Sequence: ;, Token Category: 22, Position: (6, 6))
37 , (Sequence: }, Token Category: 26, Position: (7, 0))
38 , (Sequence: ;, Token Category: 22, Position: (7, 1))
39 , (Sequence: **while**, Token Category: 18, Position: (9, 0))
40 , (Sequence: (, Token Category: 23, Position: (9, 5))
41 , (Sequence: fi, Token Category: 1, Position: (9, 6))
42 , (Sequence: <, Token Category: 6, Position: (9, 8))
43 , (Sequence: n, Token Category: 1, Position: (9, 9))
44 , (Sequence:), Token Category: 24, Position: (9, 10))
45 , (Sequence: {, Token Category: 25, Position: (9, 11))
46 , (Sequence: fi, Token Category: 1, Position: (10, 0))
47 , (Sequence: =, Token Category: 5, Position: (10, 2))
48 , (Sequence: f1, Token Category: 1, Position: (10, 3))
49 , (Sequence: +, Token Category: 8, Position: (10, 5))
50 , (Sequence: f2, Token Category: 1, Position: (10, 6))
51 , (Sequence: ;, Token Category: 22, Position: (10, 8))
52 , (Sequence: f1, Token Category: 1, Position: (11, 0))
53 , (Sequence: =, Token Category: 5, Position: (11, 2))
54 , (Sequence: f2, Token Category: 1, Position: (11, 3))
55 , (Sequence: ;, Token Category: 22, Position: (11, 5))
56 , (Sequence: f2, Token Category: 1, Position: (12, 0))
57 , (Sequence: =, Token Category: 5, Position: (12, 2))
58 , (Sequence: fi, Token Category: 1, Position: (12, 3))
59 , (Sequence: ;, Token Category: 22, Position: (12, 5))
60 , (Sequence: }, Token Category: 26, Position: (13, 0))
61 , (Sequence: ;, Token Category: 22, Position: (13, 1))

```
62  , (Sequence: shoot, Token Category: 17, Position: (15, 0))
63  , (Sequence: fi, Token Category: 1, Position: (15, 5))
64  , (Sequence: ;, Token Category: 22, Position: (15, 7))
65  , (Sequence: }, Token Category: 26, Position: (16, 0))
66  , (Sequence: ;, Token Category: 22, Position: (16, 1))
67  , (Sequence: void, Token Category: 29, Position: (18, 0))
68  , (Sequence: main, Token Category: 31, Position: (18, 4))
69  , (Sequence: (, Token Category: 23, Position: (18, 8))
70  , (Sequence: ), Token Category: 24, Position: (18, 9))
71  , (Sequence: {, Token Category: 25, Position: (18, 10))
72  , (Sequence: int, Token Category: 20, Position: (19, 0))
73  , (Sequence: n, Token Category: 1, Position: (19, 3))
74  , (Sequence: ;, Token Category: 22, Position: (19, 4))
75  , (Sequence: readIn, Token Category: 30, Position: (20, 0))
76  , (Sequence: (, Token Category: 23, Position: (20, 6))
77  , (Sequence: n, Token Category: 1, Position: (20, 7))
78  , (Sequence: ), Token Category: 24, Position: (20, 8))
79  , (Sequence: ;, Token Category: 22, Position: (20, 9))
80  , (Sequence: int, Token Category: 20, Position: (22, 0))
81  , (Sequence: fib, Token Category: 1, Position: (22, 3))
82  , (Sequence: =, Token Category: 5, Position: (22, 6))
83  , (Sequence: fibonacci, Token Category: 1, Position: (22, 7))
84  , (Sequence: (, Token Category: 23, Position: (22, 16))
85  , (Sequence: n, Token Category: 1, Position: (22, 17))
86  , (Sequence: ), Token Category: 24, Position: (22, 18))
87  , (Sequence: ;, Token Category: 22, Position: (22, 19))
88  , (Sequence: #dosomethingwithfib, Token Category: 10, Position: (23, 0))
89  , (Sequence: }, Token Category: 26, Position: (24, 0))
90  , (Sequence: ;, Token Category: 22, Position: (24, 1))
91  ]
```

1.3   ShellSort

```
1  [(Sequence: void, Token Category: 29, Position: (0, 0))
2  , (Sequence: main, Token Category: 31, Position: (0, 4))
3  , (Sequence: (, Token Category: 23, Position: (0, 8))
4  , (Sequence: ), Token Category: 24, Position: (0, 9))
5  , (Sequence: {, Token Category: 25, Position: (0, 10))
6  , (Sequence: int, Token Category: 20, Position: (1, 0))
7  , (Sequence: size, Token Category: 1, Position: (1, 3))
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 8  , (Sequence: ;, Token Category: 22, Position: (1, 7))
 9  , (Sequence: readIn, Token Category: 30, Position: (2, 0))
10  , (Sequence: (, Token Category: 23, Position: (2, 6))
11  , (Sequence: size, Token Category: 1, Position: (2, 7))
12  , (Sequence: ), Token Category: 24, Position: (2, 11))
13  , (Sequence: ;, Token Category: 22, Position: (2, 12))
14  , (Sequence: int, Token Category: 20, Position: (4, 0))
15  , (Sequence: vet, Token Category: 1, Position: (4, 3))
16  , (Sequence: ::, Token Category: 11, Position: (4, 6))
17  , (Sequence: size, Token Category: 1, Position: (4, 8))
18  , (Sequence: ;, Token Category: 22, Position: (4, 12))
19  , (Sequence: for, Token Category: 19, Position: (6, 0))
20  , (Sequence: (, Token Category: 23, Position: (6, 3))
21  , (Sequence: int, Token Category: 20, Position: (6, 4))
22  , (Sequence: i, Token Category: 1, Position: (6, 7))
23  , (Sequence: =, Token Category: 5, Position: (6, 8))
24  , (Sequence: 0, Token Category: 3, Position: (6, 9))
25  , (Sequence: ;, Token Category: 22, Position: (6, 10))
26  , (Sequence: i, Token Category: 1, Position: (6, 11))
27  , (Sequence: <, Token Category: 6, Position: (6, 12))
28  , (Sequence: size, Token Category: 1, Position: (6, 13))
29  , (Sequence: ;, Token Category: 22, Position: (6, 17))
30  , (Sequence: i, Token Category: 1, Position: (6, 18))
31  , (Sequence: =, Token Category: 5, Position: (6, 19))
32  , (Sequence: i, Token Category: 1, Position: (6, 20))
33  , (Sequence: +, Token Category: 8, Position: (6, 21))
34  , (Sequence: 1, Token Category: 3, Position: (6, 22))
35  , (Sequence: ), Token Category: 24, Position: (6, 23))
36  , (Sequence: {, Token Category: 25, Position: (6, 24))
37  , (Sequence: int, Token Category: 20, Position: (7, 0))
38  , (Sequence: x, Token Category: 1, Position: (7, 3))
39  , (Sequence: ;, Token Category: 22, Position: (7, 4))
40  , (Sequence: readIn, Token Category: 30, Position: (8, 0))
41  , (Sequence: (, Token Category: 23, Position: (8, 6))
42  , (Sequence: x, Token Category: 1, Position: (8, 7))
43  , (Sequence: ), Token Category: 24, Position: (8, 8))
44  , (Sequence: ;, Token Category: 22, Position: (8, 9))
45  , (Sequence: add, Token Category: 1, Position: (9, 0))
46  , (Sequence: (, Token Category: 23, Position: (9, 3))
47  , (Sequence: vet, Token Category: 1, Position: (9, 4))
48  , (Sequence: ,, Token Category: 22, Position: (9, 7))
```

49 , (Sequence: x, Token Category: 1, Position: (9, 8))
50 , (Sequence:), Token Category: 24, Position: (9, 9))
51 , (Sequence: ;, Token Category: 22, Position: (9, 10))
52 , (Sequence: }, Token Category: 26, Position: (10, 0))
53 , (Sequence: ;, Token Category: 22, Position: (10, 1))
54 , (Sequence: **int**, Token Category: 20, Position: (12, 0))
55 , (Sequence: value, Token Category: 1, Position: (12, 3))
56 , (Sequence: ;, Token Category: 22, Position: (12, 8))
57 , (Sequence: **int**, Token Category: 20, Position: (13, 0))
58 , (Sequence: gap, Token Category: 1, Position: (13, 3))
59 , (Sequence: =, Token Category: 5, Position: (13, 6))
60 , (Sequence: 1, Token Category: 3, Position: (13, 7))
61 , (Sequence: ;, Token Category: 22, Position: (13, 8))
62 , (Sequence: **while**, Token Category: 18, Position: (14, 0))
63 , (Sequence: (, Token Category: 23, Position: (14, 5))
64 , (Sequence: gap, Token Category: 1, Position: (14, 6))
65 , (Sequence: <, Token Category: 6, Position: (14, 9))
66 , (Sequence: size, Token Category: 1, Position: (14, 10))
67 , (Sequence:), Token Category: 24, Position: (14, 14))
68 , (Sequence: {, Token Category: 25, Position: (14, 15))
69 , (Sequence: gap, Token Category: 1, Position: (15, 0))
70 , (Sequence: =, Token Category: 5, Position: (15, 3))
71 , (Sequence: 3, Token Category: 3, Position: (15, 4))
72 , (Sequence: *, Token Category: 9, Position: (15, 5))
73 , (Sequence: gap, Token Category: 1, Position: (15, 6))
74 , (Sequence: +, Token Category: 8, Position: (15, 9))
75 , (Sequence: 1, Token Category: 3, Position: (15, 10))
76 , (Sequence: ;, Token Category: 22, Position: (15, 11))
77 , (Sequence: }, Token Category: 26, Position: (16, 0))
78 , (Sequence: ;, Token Category: 22, Position: (16, 1))
79 , (Sequence: **while**, Token Category: 18, Position: (18, 0))
80 , (Sequence: (, Token Category: 23, Position: (18, 5))
81 , (Sequence: gap, Token Category: 1, Position: (18, 6))
82 , (Sequence: >, Token Category: 6, Position: (18, 9))
83 , (Sequence: 1, Token Category: 3, Position: (18, 10))
84 , (Sequence:), Token Category: 24, Position: (18, 11))
85 , (Sequence: {, Token Category: 25, Position: (18, 12))
86 , (Sequence: gap, Token Category: 1, Position: (19, 0))
87 , (Sequence: =, Token Category: 5, Position: (19, 3))
88 , (Sequence: gap, Token Category: 1, Position: (19, 4))
89 , (Sequence: /, Token Category: 9, Position: (19, 7))

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 90  ,  (Sequence:  3,  Token Category:  3,  Position:  (19,  8))
 91  ,  (Sequence:  ;,  Token Category:  22,  Position:  (19,  9))
 92  ,  (Sequence:  for,  Token Category:  19,  Position:  (20,  0))
 93  ,  (Sequence:  (,  Token Category:  23,  Position:  (20,  3))
 94  ,  (Sequence:  int,  Token Category:  20,  Position:  (20,  4))
 95  ,  (Sequence:  i,  Token Category:  1,  Position:  (20,  7))
 96  ,  (Sequence:  =,  Token Category:  5,  Position:  (20,  8))
 97  ,  (Sequence:  gap,  Token Category:  1,  Position:  (20,  9))
 98  ,  (Sequence:  ;,  Token Category:  22,  Position:  (20,  12))
 99  ,  (Sequence:  i,  Token Category:  1,  Position:  (20,  13))
100  ,  (Sequence:  <,  Token Category:  6,  Position:  (20,  14))
101  ,  (Sequence:  size,  Token Category:  1,  Position:  (20,  15))
102  ,  (Sequence:  ;,  Token Category:  22,  Position:  (20,  19))
103  ,  (Sequence:  i,  Token Category:  1,  Position:  (20,  20))
104  ,  (Sequence:  =,  Token Category:  5,  Position:  (20,  21))
105  ,  (Sequence:  i,  Token Category:  1,  Position:  (20,  22))
106  ,  (Sequence:  +,  Token Category:  8,  Position:  (20,  23))
107  ,  (Sequence:  1,  Token Category:  3,  Position:  (20,  24))
108  ,  (Sequence:  ),  Token Category:  24,  Position:  (20,  25))
109  ,  (Sequence:  {,  Token Category:  25,  Position:  (20,  26))
110  ,  (Sequence:  value,  Token Category:  1,  Position:  (21,  0))
111  ,  (Sequence:  =,  Token Category:  5,  Position:  (21,  5))
112  ,  (Sequence:  getValue,  Token Category:  1,  Position:  (21,  6))
113  ,  (Sequence:  (,  Token Category:  23,  Position:  (21,  14))
114  ,  (Sequence:  vet,  Token Category:  1,  Position:  (21,  15))
115  ,  (Sequence:  ,,  Token Category:  22,  Position:  (21,  18))
116  ,  (Sequence:  i,  Token Category:  1,  Position:  (21,  19))
117  ,  (Sequence:  ),  Token Category:  24,  Position:  (21,  20))
118  ,  (Sequence:  ;,  Token Category:  22,  Position:  (21,  21))
119  ,  (Sequence:  int,  Token Category:  20,  Position:  (22,  0))
120  ,  (Sequence:  j,  Token Category:  1,  Position:  (22,  3))
121  ,  (Sequence:  =,  Token Category:  5,  Position:  (22,  4))
122  ,  (Sequence:  i,  Token Category:  1,  Position:  (22,  5))
123  ,  (Sequence:  −,  Token Category:  8,  Position:  (22,  6))
124  ,  (Sequence:  gap,  Token Category:  1,  Position:  (22,  7))
125  ,  (Sequence:  ;,  Token Category:  22,  Position:  (22,  10))
126  ,  (Sequence:  while,  Token Category:  18,  Position:  (24,  0))
127  ,  (Sequence:  (,  Token Category:  23,  Position:  (24,  5))
128  ,  (Sequence:  j,  Token Category:  1,  Position:  (24,  6))
129  ,  (Sequence:  >=,  Token Category:  6,  Position:  (24,  7))
130  ,  (Sequence:  0,  Token Category:  3,  Position:  (24,  9))
```

131 , (Sequence: and, Token Category: 12, Position: (24, 10))
132 , (Sequence: value, Token Category: 1, Position: (24, 13))
133 , (Sequence: <, Token Category: 6, Position: (24, 18))
134 , (Sequence: getValue, Token Category: 1, Position: (24, 19))
135 , (Sequence: (, Token Category: 23, Position: (24, 27))
136 , (Sequence: vet, Token Category: 1, Position: (24, 28))
137 , (Sequence: ,, Token Category: 22, Position: (24, 31))
138 , (Sequence: j, Token Category: 1, Position: (24, 32))
139 , (Sequence:), Token Category: 24, Position: (24, 33))
140 , (Sequence:), Token Category: 24, Position: (24, 34))
141 , (Sequence: {, Token Category: 25, Position: (24, 35))
142 , (Sequence: **int**, Token Category: 20, Position: (25, 0))
143 , (Sequence: k, Token Category: 1, Position: (25, 3))
144 , (Sequence: =, Token Category: 5, Position: (25, 4))
145 , (Sequence: j, Token Category: 1, Position: (25, 5))
146 , (Sequence: +, Token Category: 8, Position: (25, 6))
147 , (Sequence: gap, Token Category: 1, Position: (25, 7))
148 , (Sequence: ;, Token Category: 22, Position: (25, 10))
149 , (Sequence: **int**, Token Category: 20, Position: (26, 0))
150 , (Sequence: l, Token Category: 1, Position: (26, 3))
151 , (Sequence: =, Token Category: 5, Position: (26, 4))
152 , (Sequence: getValue, Token Category: 1, Position: (26, 5))
153 , (Sequence: (, Token Category: 23, Position: (26, 13))
154 , (Sequence: vet, Token Category: 1, Position: (26, 14))
155 , (Sequence: ,, Token Category: 22, Position: (26, 17))
156 , (Sequence: j, Token Category: 1, Position: (26, 18))
157 , (Sequence:), Token Category: 24, Position: (26, 19))
158 , (Sequence: ;, Token Category: 22, Position: (26, 20))
159 , (Sequence: setValue, Token Category: 1, Position: (27, 0))
160 , (Sequence: (, Token Category: 23, Position: (27, 8))
161 , (Sequence: vet, Token Category: 1, Position: (27, 9))
162 , (Sequence: ,, Token Category: 22, Position: (27, 12))
163 , (Sequence: k, Token Category: 1, Position: (27, 13))
164 , (Sequence: ,, Token Category: 22, Position: (27, 14))
165 , (Sequence: l, Token Category: 1, Position: (27, 15))
166 , (Sequence:), Token Category: 24, Position: (27, 16))
167 , (Sequence: ;, Token Category: 22, Position: (27, 17))
168 , (Sequence: j, Token Category: 1, Position: (28, 0))
169 , (Sequence: =, Token Category: 5, Position: (28, 1))
170 , (Sequence: j, Token Category: 1, Position: (28, 2))
171 , (Sequence: −, Token Category: 8, Position: (28, 3))

```
172  , (Sequence: gap, Token Category: 1, Position: (28, 4))
173  , (Sequence: ;, Token Category: 22, Position: (28, 7))
174  , (Sequence: }, Token Category: 26, Position: (29, 0))
175  , (Sequence: ;, Token Category: 22, Position: (29, 1))
176  , (Sequence: k, Token Category: 1, Position: (31, 0))
177  , (Sequence: =, Token Category: 5, Position: (31, 1))
178  , (Sequence: j, Token Category: 1, Position: (31, 2))
179  , (Sequence: +, Token Category: 8, Position: (31, 3))
180  , (Sequence: gap, Token Category: 1, Position: (31, 4))
181  , (Sequence: ;, Token Category: 22, Position: (31, 7))
182  , (Sequence: setValue, Token Category: 1, Position: (32, 0))
183  , (Sequence: (, Token Category: 23, Position: (32, 8))
184  , (Sequence: vet, Token Category: 1, Position: (32, 9))
185  , (Sequence: ,, Token Category: 22, Position: (32, 12))
186  , (Sequence: k, Token Category: 1, Position: (32, 13))
187  , (Sequence: ,, Token Category: 22, Position: (32, 14))
188  , (Sequence: value, Token Category: 1, Position: (32, 15))
189  , (Sequence: ), Token Category: 24, Position: (32, 20))
190  , (Sequence: ;, Token Category: 22, Position: (32, 21))
191  , (Sequence: }, Token Category: 26, Position: (33, 0))
192  , (Sequence: ;, Token Category: 22, Position: (33, 1))
193  , (Sequence: }, Token Category: 26, Position: (34, 0))
194  , (Sequence: ;, Token Category: 22, Position: (34, 1))
195  , (Sequence: }, Token Category: 26, Position: (35, 0))
196  , (Sequence: ;, Token Category: 22, Position: (35, 1))
197  ]
```