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	J. T:-4

Lista de Listagens

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1 Tabelas

tipo	bits	minmax	precisao
char	8	0127	2
signed char	8	-128127	2
unsigned char	8	0255	2
short	16	-32.768 32.767	4
unsigned short	16	0 65.535	4
int	32	-2x10**9 2 x 10**9	9
unsigned int	32	0 4x10**9	9
$\mathrm{int}64_{-}\mathrm{t}$	64	-9 x 10**18 9 x 10**18	18
$uint64_t$	64	0 18 x 10**18	19

Tabela 1: Limites de representação de dados

2 Codigos

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <math.h>

#include <inttypes.h>
#include <ctype.h>

#include <algorithm>
#include <utility>
#include <iostream>
```

```
0! = 1
 1! = 1
```

2! = 2

3! = 64! = 24

5! = 120

6! = 7207! = 5.040

8! = 40.320

9! = 362.880 10! = 3.628.800

11! = 39.916.800

12! = 479.001.600 [limite do (unsigned) int]

13! = 6.227.020.80014! = 87.178.291.200

15! = 1.307.674.368.000

16! = 20.922.789.888.000

17! = 355.687.428.096.00018! = 6.402.373.705.728.000

19! = 121.645.100.408.832.000

20! = 2.432.902.008.176.640.000 [limite do (u)int64_t]

Tabela 2: Fatorial

```
Tipe %
char c
int d
float e, E, f, g, G
int (octal) o
int (hexa) x, X
uint u
char* s
```

Tabela 3: scanf() - %[*][width][modifiers]type

 $\begin{array}{lll} modifiers & tipo \\ h & short int (d, i, n), or unsigned short int (o, u, x) \\ l & long int (d, i, n), or unsigned long int (o, u, x), or double (e, f, g) \\ L & long double (e, f, g) \\ \end{array}$

Tabela 4: scanf() %[*][width][modifiers]type

```
13 #include <map>
                                                                                         printf ("Preceding with blanks: %10d \n", 1977);
  #include <set>
                                                                                         printf ("Preceding with zeros: %010d \n", 1977);
  #include <vector>
                                                                                         printf ("Some different radixes: %d %x %o %#x %#o \n", 100, 100, 100,
                                                                                   10
  #include <sstream>
                                                                                             100. 100):
                                                                                         printf ("floats: %4.2f %+.0e %E \n", 3.1416, 3.1416, 3.1416);
17
                                                                                  11
                                                                                         printf ("Width trick: %*d \n", 5, 10);
   using namespace std;
                                                                                   12
                                                                                         printf ("%s \n", "A string");
                                                                                   13
   #define abs(a) ((a) > 0 ? (a) : -(a))
                                                                                         return 0;
20
                                                                                   14
                                                                                   15
21
   int main()
                                                                                      /* output
^{22}
                                                                                   16
                                                                                      Characters: a A
23
                                                                                   17
                                                                                      Decimals: 1977 650000
      int n;
24
                                                                                      Preceding with blanks:
                                                                                                                     1977
^{25}
       cin >> n;
                                                                                      Preceding with zeros: 0000001977
26
                                                                                      Some different radixes: 100 64 144 0x64 0144
27
      for (int i = 0; i < n; i++)
                                                                                      floats: 3.14 +3e+000 3.141600E+000
28
                                                                                      Width trick:
                                                                                                      10
29
                                                                                  24
                                                                                      A string
                                                                                   25
31
32
                                                                                                                       Código 4: printf
      while (cin >> n)
33
34
35
                                                                                      #include <stdio.h>
36
                                                                                      #include <stdlib.h>
      return 0;
37
                                                                                      #include <string.h>
                                                                                      #include <math.h>
                                   Código 1: Modelo
                                                                                      #include <inttypes.h>
                                                                                      #include <ctype.h>
   const double EPS = 1e-10;
                                                                                      #include <algorithm>
      -1 se x < y
                                                                                      #include <utility>
      0 \ se \ x = y
                                                                                      #include <iostream>
                                                                                   11
      1 se x > y
                                                                                      #include <map>
   inline int cmp (double x, double y = 0, double tol = EPS)
                                                                                      #include <set>
                                                                                      #include <vector>
      return (x \le y + tol) ? (x + tol < y) ? -1 : 0 : 1;
                                                                                      #include <sstream>
10
                                                                                   17
                                                                                      using namespace std;
                                                                                  18
                         Código 2: comparcao de ponto flutuante
                                                                                   19
                                                                                      #define abs(a) ((a) > 0 ? (a) : -(a))
                                                                                   20
                                                                                  21
   set ai noet ts=4 sw=4 bs=2
                                                                                      int main()
                                                                                  22
                                                                                  23
  mat Keyword "\<foreach\>"
                                                                                         int n;
                                                                                   24
                       Código 3: .vimrc para a configuração do vim
                                                                                   25
                                                                                         cin >> n;
                                                                                  26
                                                                                   27
   /* printf example */
                                                                                         for (int i = 0; i < n; i++)
                                                                                   28
2 #include <stdio.h>
                                                                                   29
                                                                                   30
  int main()
                                                                                  31
                                                                                  32
       printf ("Characters: %c %c \n", 'a', 65);
                                                                                         while (cin \gg n)
                                                                                  33
       printf ("Decimals: %d %ld\n", 1977, 650000L);
```

```
35
36 }
37 return 0;
38 }
```

Código 5: modelo