

# First L<sup>A</sup>T<sub>E</sub>X Document

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## 1 Introduction

L<sup>A</sup>T<sub>E</sub>X is a very powerful tool to create documents or scientific papers. A good introduction tutorial can be found [here](#) — [Overleaf doc](#)

## 2 Once upon a time

Once upon a time, there were an Hello World...

## 3 Marvels incoming

Hello World...

## 4 Code time

Here is some typical Python code.

```
1  # Program to display the Fibonacci sequence up to n-th term
2
3  nterms = int(input("How many terms? "))
4
5  # first two terms
6  n1, n2 = 0, 1
7  count = 0
8
9  # check if the number of terms is valid
10 if nterms <= 0:
11     print("Please enter a positive integer")
12 elif nterms == 1:
13     print("Fibonacci sequence upto", nterms, ":")
14     print(n1)
15 else:
16     print("Fibonacci sequence:")
17     while count < nterms:
18         print(n1)
19         nth = n1 + n2
20         # update values
21         n1 = n2
22         n2 = nth
23         count += 1
24
```

Listing 1: Python example

```

1 (base) onyr@aezyr:~/Documents/code/python/python_intro$ python3
  fibonacci_sequence.py
2 How many terms? 10
3 Fibonacci sequence:
4 0
5 1
6 1
7 2
8 3
9 5
10 8
11 13
12 21
13 34
14

```

Listing 2: Python example output

And here is some from a file

```

1 #include <stdio.h>
2
3 int main() {
4     int year;
5     printf("Enter a year: ");
6     scanf("%d", &year);
7
8     // leap year if perfectly divisible by 400
9     if (year % 400 == 0) {
10        printf("%d is a leap year.\r\n", year);
11    }
12    // not a leap year if divisible by 100
13    // but not divisible by 400
14    else if (year % 100 == 0) {
15        printf("%d is not a leap year.\r\n", year);
16    }
17    // leap year if not divisible by 100
18    // but divisible by 4
19    else if (year % 4 == 0) {
20        printf("%d is a leap year.\r\n", year);
21    }
22    // all other years are not leap years
23    else {
24        printf("%d is not a leap year.\r\n", year);
25    }
26
27    return 0;
28 }

```

Listing 3: Python example output