Exercises — Fibo Iter

version **#7be580532266ed398481e31366afcc24b1950c2a**

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Contents

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File Tree

```
fibo_iter/
└── fibo_iter.c  (to submit)
```

Authorized headers : You are only allowed to use the functions defined in the following headers

- err.h
- errno.h
- assert.h
- stddef.h

Compilation : Your code must compile with the following flags

- -std=c99 -pedantic -Werror -Wall -Wextra -Wvla

Main function : None

1 Goal

Write the function that computes the *Fibonacci sequence*. But since the recursive implementation of this function is very slow, we want to have a more optimized version that uses loops and does not recompute every previous value every time.

Reminder: The Fibonacci sequence is defined by U_n as follow:

- $U_0 = 0$
- $U_1 = 1$
- $U_n = U_{n-1} + U_{n-2}$

```c
unsigned long fibo_iter(unsigned long n);
```

The way is lit. The path is clear. We require only the strength to follow it.