Report assignment 1

https://github.com/HJ-HHuber

```
n = int(input('How many results would you like? '))
```
Request input from user: How many results would you like?
n is defined as integer variable
n represents the amount of calculated values in the function fibonacci_f

```
fibonacci = []
```
create an array with the name fibonacci
'[]' corresponds to an empty array

```
# start of definition fibonacci_f
def fibonacci_f(n):
    a=0
    b=1
```
define function fibonacci_f with the input variable (n)
set variable a to value 0
set variable b to value 1

```
        # start of the if, elif, else condition, because of the "special" cases (n==0), (n==1)
    if n==0:
      fibonacci.append('null')
    elif n==1:
        fibonacci.append(a)
    else:
        fibonacci.append(a)
        fibonacci.append(b)
```
if zero values are requested by input (n==0)
add null to the fibonacci array, which represents an empty array
elif one value is requested by input (n==1)
add value of a to the fibonacci array
else all other cases where (n>1)
add value of a to the fibonacci array
add value of b to the fibonacci array

```
        for i in range(n-2):
```
for loop of variable i in range of (n-2), because a and b are already in array

```
            c = a + b
            a = b
            b = c
            fibonacci.append(c)
```
set third variable c to a + b which gives the following value
set variable a to b
set variable b to c
add value of c to the fibonacci array
end of the if, elif, else condition

```
fibonacci_f(n)
```
end of definition fibonacci_f

```
# start of if, elif condition to consider two special cases and else for the 'normal' case
if n==0:                                                    # if zero values are requested by input (n==0)
 print('No index request possible!')                        # output of: No index request possible!
# index request makes no sense in this case because the fibonacci array is empty, respectively contains the element null
 print(fibonacci)                                           #print fibonacci array which corresponds to null
elif n==1:                                                  # elif one value is requested by input (n==1)
 print('set index = 1, otherwise: n<i')                     # output of: set index = 1, otherwise: n<i
# index request makes no sense in this case because the fibonacci array has only one element, therefore this element is given without index request
 print(fibonacci)                                           #print fibonacci array which corresponds to the first value, which is 0
else:                                                       # else all other cases where (n>1)
 i1 = int(input('First index:'))                            #request the first index i1 from user and define as int
 i2= input(('Second index:'))                               #request the second index i2 from user and define as int
 # start of another if clause within the else to exclude a case where n<i1 or n<i2. This means the user requests a higher index than elements are in the array.
 if n<i1 or n<i2:                                           # start if clause with n<i1 or n<i2
   print('Are you kidding me? ! n<i ! ->ERROR')             # output of: Are you kidding me? ! n<i ! ->ERROR
 else:                                                      # start else for all cases where both indexes <n
   print('value 1:', fibonacci[i1-1])                       # output of: value 1: requested value with index i1-1 from fibonacci
   print('value 2:', fibonacci[i2-1])                       # output of: value 2: requested value with index i1-1 from fibonacci
                                                            # end of if, else clause
                                                            # end of if, elif, else condition
```