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Lab07

How long did it take for you to complete this assignment?

It took me around 9 hours in reading, studying and thinking about how to solve it.

What was the hardest part of the assignment?

It was really hard to understand how to correctly create the loops to make it work. I was able to get the largest numbers and compare then, but when tring to swap the number with the pivot and repeat the same process the results were different and didn't produce the same result. My possible solution is to create another loop inside the main one that will correctly make the comparisons. Creating in pseudocode is a little harder because I cannot see correctly what the output will be so the solution is based on suppositions but not in real results.

I created many different possible solutions and this is the one I consider to be the one with more possibilities to succed after working on it.

Was there anything unclear about the instructions or how you were to complete this lab?

They are clear but I haven't been able to solve it correctly, since it seems there are a lack in my logic to make it work.

```
PROMPT for filename
GET filename

OPEN file
words_text <- READ file
word_json <- json.load(words_text)
words_list <- words_json['array']

minus <- -1
i_pivot <- words_list[minus]
i_largest <- 0

for i_check in words_list:
    if i_check > i_largest:
        i_largest <- i_check
        if i_largest > i_pivot:
            index1 <- words_list.index(i_largest)
```

```
            index2 <- words_list.index(i_pivot)
            index1, index2 <- index2, index1
        minus <- minus - 1

PUT words_list
```

It has an algorithm efficiency of $O(N^2)$ since you will be using 2 loops, one of them to check each element in the array and another loop to compare that element with every element in the array and perform the swap between numbers.

	i_pivot	i_largest	i_check	minus
for loop	/	/	/	-1
for loop	/	0	/	-1
for loop	26	0	52	-1
for loop	26	52	52	-1
for loop	39	26	26	-2
for loop	39	26	26	-3
for loop	15	26	26	-3
for loop	15	15	15	-4