

Back to all evaluation sheets

Points earned

O

### push\_swap

You should evaluate 1 student in this team

### Introduction

Please follow the rules below:

Remain polite, courteous, respectful and constructive throughout the evaluation process. The well-being of the community depends on it. Identify with the student or group whose work is evaluated the possible dysfunctions in their project. Take the time to discuss and debate the problems that may have been identified.

You must consider that there might be some differences in how your peers might have understood the project's instructions and the scope of its functionalities. Always keep an open mind and grade them as honestly as possible. The pedagogy is useful only and only if the peer-evaluation is done seriously.

### **Guidelines**

Please follow the guidelines below:

Only grade the work that was turned in the Git repository of the evaluated student or group.

Double-check that the Git repository belongs to the student(s). Ensure that the

project is the one expected. Also, check that 'git clone' is used in an empty folder.s

Check carefully that no malicious aliases was used to evaluate something that is not the content of the office

To avoid any surprises and if applicable, review toge facilitate the grading (scripts for testing or automatio

## Points earned



If you have not completed the assignment you are going to evaluate, you have to read the entire subject prior to starting the evaluation process.

Use the available flags to report an empty repository, a non-functioning program, a Norm error, cheating, and so forth.

In these cases, the evaluation process ends and the final grade is 0, or -42 in case of cheating. However, except for cheating, student are strongly encouraged to review together the work that was turned in, in order to identify any mistakes that shouldn't be repeated in the future.

You must also verify the absence of memory leaks. Any memory allocated on the heap must be properly freed before the end of execution.

You are allowed to use any of the different tools available on the computer, such as leaks, valgrind, or e\_fence. In case of memory leaks, tick the appropriate flag.

### **Attachments**

Please download the attachments below:

subject.pdf

@ checker\_Mac

checker\_linux

### **Mandatory Part**

### **Memory leaks**

Reminder: Remember that for the duration of the other unexpected, premature, uncontrolled or une program, else the final grade is 0. Use the appropriactive thoughout the whole defence.

# Points earned

Throughout the defence, pay attention to the amount of memory used by push\_swap (using the command top for example) in order to detect any anomalies and ensure that allocated memory is properly freed. If there is one memory leak (or more), the final grade is 0.

Yes No

### **Error management**

In this section, we'll evaluate the push\_swap's error management. If at least one fails, no points will be awarded for this section. Move to the next one.

Run push\_swap with non numeric parameters. The program must display "Error".

Run push\_swap with a duplicate numeric parameter. The program must display "Error".

Run push\_swap with only numeric parameters including one greater than MAXINT. The program must display "Error".

Run push\_swap without any parameters. The program must not display anything and give the prompt back.

Yes No

#### Push\_swap - Identity test

# Points earned

In this section, we'll evaluate push\_swap's behavior has already been sorted. Execute the following 3 to the next one.

Run the following command "\$>./push\_swap 42". The program should display nothing (0 instruction).

Run the following command "\$>./push\_swap 2 3". The program should display nothing (0 instruction).

Run the following command "\$>./push\_swap 0 1 2 3". The program should display nothing (0 instruction).

Run the following command "\$>./push\_swap 0 1 2 3 4 5 6 7 8 9". The program should display nothing (0 instruction).

Run the following command "\$>./push\_swap 'Between 0 and 9 randomly sorted values chosen>'. The program should display nothing (0 instruction).

Yes No

### Push\_swap - Simple version

If the following tests fails, no points will be awarded for this section. Move to the next one. Use the checker binary given on the attachments.

Run "\$>ARG="2 1 0"; ./push\_swap \$ARG | ./checker\_OS \$ARG".

Check that the checker program displays "OK" and that the size of the list of instructions from push\_swap is 2 OR 3. Otherwise the test fails.

Run "\$>ARG="'Between 0 and 3 randomly values chosen'"; ./push\_swap

\$ARG | ./checker\_OS \$ARG". Check that the checker program displays "OK" and that the size of the list of instructions from push\_swap is between 0 AND 3. Otherwise the test fails.

Yes No Points earned O

### **Another simple version**

Execute the following 2 tests. If at least one fails, no points will be awarded for this section. Move to the next one. Use the checker binary given on the attachments.

Run "\$>ARG="1 5 2 4 3"; ./push\_swap \$ARG | ./checker\_OS \$ARG".

Check that the checker program displays "OK" and that the size of the list of instructions from push\_swap isn't more than 12. Kudos if the size of the list of instructions is 8.

Run "\$>ARG="<5 random values>"; ./push\_swap \$ARG | ./checker\_OS \$ARG" and replace the placeholder by 5 random valid values.

Check that the checker program displays "OK" and that the size of the list of instructions from push\_swap isn't more than 12. Otherwise this test fails. You'll have to specifically check that the program wasn't developed to only answer correctly on the test included in this scale. You should repeat this test couple of times with several permutations before you validate it.

Yes No

### Push\_swap - Middle version

If the following test fails, no points will be awarded for this section. Move to the next one. Move to the next one. Use the checker binary given on the attachments.

**Points earned** 

Run "\$>ARG="<100 random values>"; ./push\_swap \$ARG | ./checker\_OS \$ARG" and replace the placeholder by 100 random valid values. Check that the checker program displays "OK" and that the sir instructions. Give points in accordance:

less than 700: 5

less than 900: 4

less than 1100: 3

less than 1300: 2

less than 1500: 1

You'll have to specifically check that the program wasn't developed to only answer correctly on the test included in this scale. You should repeat this test couple of times with several permutations before you validate it.

Rate it from 0 (failed) through 5 (excellent)

0

1

2

3

4

5

### Push\_swap - Advanced version

If the following test fails, no points will be awarded for this section. Move to the next one. Move to the next one. Use the checker binary given on the attachments.

Run "\$>ARG="<500 random values>"; ./push\_swap \$ARG | ./checker\_OS \$ARG" and replace the placeholder by 500 random valid values (One is not called John/Jane Script for nothing). Check that the checker program displays "OK" and that the size of the list of instructions

less than 5500: 5

less than 7000: 4

less than 8500: 3

less than 10000: 2

less than 11500: 1

You'll have to specifically check that the program answer correctly on the test included in this scale. test couple of times with several permutations bef

# Points earned

Rate it from 0 (failed) through 5 (excellent)



#### **Bonus Part**

### **Checker program - Error management**

In this section, we'll evaluate the checker's error management. If at least one fails, no points will be awarded for this section. Move to the next one.

Run checker with non numeric parameters. The program must display "Error".

Run checker with a duplicate numeric parameter. The program must display "Error".

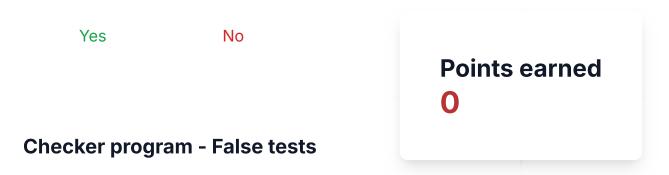
Run checker with only numeric parameters including one greater than MAXINT. The program must display "Error".

Run checker without any parameters. The program must not display anything and give the prompt back.

Run checker with valid parameters, and write an action that doesn't exist during the instruction phase. The program must display "Error".

Run checker with valid parameters, and write an action with one or several spaces before and/or after the action during the instruction phase. The

program must display "Error".



In this section, we'll evaluate the checker's ability to manage a list of instructions that doesn't sort the list. Execute the following 2 tests. If at least one fails, no points will be awarded for this section. Move to the next one. Don't forget to press CTRL+D to stop reading during the intruction phase.

Run checker with the following command "\$>./checker 0 9 1 8 2 7 3 6 4 5" then write the following valid action list "[sa, pb, rrr]". Checker should display "KO".

Run checker with a valid list as parameter of your choice then write a valid instruction list that doesn't order the integers. Checker should display "KO". You'll have to specifically check that the program wasn't developed to only answer correctly on the test included in this scale. You should repeat this test couple of times with several permutations before you validate it.



### **Checker program - Right tests**

In this section, we'll evaluate the checker's ability to manage a list of instructions that sort the list. Execute the following 2 tests. If at least one fails, no points will be awarded for this section. Move to the next one. Don't forget to press CTRL+D to stop reading during the instruction phase.

Run checker with the following command "\$>./checker 0 1 2" then press CTRL+D without writing any instruction. The program should display "OK".

Run checker with the following command "\$>./checker 0 9 1 8 2" then write the following valid action list "[pb, ra, pb, ra, sa, ra, pa, pa]". The program

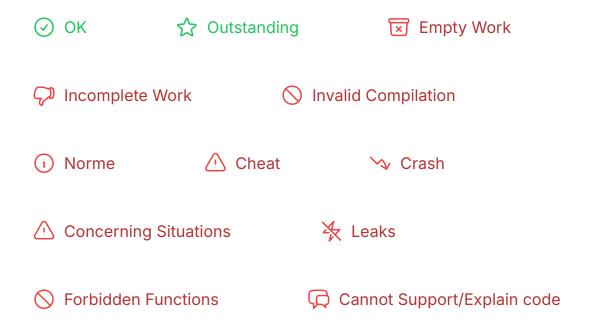
should display "OK".

Run checker with a valid list as parameter of your choice then write a valid instruction list that order the integers. Checker mu have to specifically check that the program wasn't answer correctly on the test included in this scale. test couple of times with several permutations bef

**Points earned** 

No Yes

### **Ratings**



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