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# SCALE FOR PROJECT PUSH\_SWAP (/PROJECTS/PUSH\_SWAP)

You should correct 1 student in this team

Git repository

# Introduction

Please respect the following rules:

- Remain polite, courteous, respectful and constructivethroughout the correction process. The well-being of the community depends on it.
- Identify with the person (or the group) graded the eventual dysfunctions of the work. Take the time to discuss and debate the problems you have identified.
- You must consider that there might be some difference in how yourpeers might have understood the project's instructions and the scope of its functionalities. Always keep an open mind and grade him/her as honestly as possible. The pedagogy is valid only and only if peer-evaluation is conducted seriously.

## **Guidelines**

- Only grade the work that is in the student or group's GiT repository.
- Double-check that the GiT repository belongs to the studentor the group. Ensure that the work is for the relevant project and also check that "git clone" is used in an empty folder.
- Check carefully that no malicious aliases was used to fool youand make you evaluate something other than the content of the official repository.
- To avoid any surprises, carefully check that both the correctingand the corrected students have reviewed the possible scripts used to facilitate the grading.

- If the correcting student has not completed that particular project yet, it is mandatory for this student to read the entire subject prior to starting the defence.

- Use the flags available on this scale to signal an empty repository, non-functioning program, a norm error, cheating etc. In these cases, the grading is over and the final grade is 0 (or -42 in case of cheating). However, with the exception of cheating, you are encouraged to continue to discuss your work (even if you have not finished it) in order to identify any issues that may have caused this failure and avoid repeating the same mistake in the future.

## **Attachments**

□ Sujet
(https://cdn.intra.42.fr/pdf/pdf/650/push_swap.fr.pdf)
☐ Subject (https://cdn.intra.42.fr/pdf/pdf/651/push_swap.ro.pdf)
□ Subject
(https://cdn.intra.42.fr/pdf/pdf/944/push swap.en.pdf)

# **Mandatory part**

Reminder: Remember that for the duration of the defence, no segfault, nor other unexpected, premature, uncontrolled or unexpected termination of the program, else the final grade is 0. Use the appropriate flag. This rule is active thoughout the whole defence.

#### **Author file**

Check that the author file is at the root of the repository and formatted as explained in the subject. If not defence is finished and final grade is 0.

□ Yes	□ No

#### **Memory leaks**

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.

#### **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 programmust display "Error".
- Run checker with a duplicate numeric parameter. Theprogram must display "Error".
- Run checker with only numeric parameters including onegreater than MAXINT. The program must display "Error".
- Run checker without any parameters. The program mustnot display anything and give the prompt back.
- Run checker with valid parameters, and write an action thatdoesn't exist during the instruction phase. The program must display "Error".
- Run checker with valid parameters, and write an action withone or several spaces before and/or after the action during the instruction phase. The program must display "Error".

□ Yes	□ No

### **Checker program - False tests**

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 thenwrite 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.

Yes	□ No
Checker program - Right	tests
In this section, we'll evaluate the chec a liss of instructions that sort the list. Ex following 2 tests. If at least one fails, n be awarded for this section. Move to t	ecute the opints will
Don't forget to press CTRL+D to stop r instruction phase.	eading during the
- Run checker with the following com then press CTRL+D without writing any program should display "OK".	
- Run checker with the following com 8 2" then write the following valid acti "[pb, ra, pb, ra, sa, ra, pa, pa]". The p display "OK".	on list
- Run checker with a valid list as paran write a valid instruction list that order to Checker must display "OK". You'll have that the program wasn't developed to on the test included in this scale. You sitest couple of times with several permit validate it.	he integers. ve to specifically check only answer correctly hould repeat this
□ Yes	□ No
Push_swap - Identity test	İ
In this section, we'll evaluate push_sw given a list, which has already been so following 3 tests. If at least one fails, n awarded for this section. Move to the	orted. Execute the opoints will be
- Run the following command "\$>./pu should display nothing (0 instruction).	ush_swap 42". The program
- Run the following command "\$>./pu program should display nothing (0 inst	
- Run the following command "\$>./p 7 8 9". The program should display no	<del>-</del> ·
☐ Yes	□ No

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Push_swap - Simple version	
If the following test fails, no points will be awarded for this section. Move to the next one.	
· Run "\$>ARG="2 1 0"; ./push_swap \$ARG   ./checker \$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.

☐ Yes

 $\square$  No

#### 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.

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

 $\square$  Yes

 $\square$  No

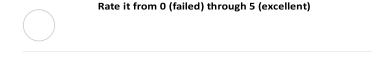
## Push swap - Middle version

If the following test fails, no points will be awarded for this section. Move to the next one.

- Run "\$>ARG="<100 random values>"; ./push\_swap \$ARG | ./checker \$ARG" and replace the placeholder by 100 random valid values. Check that the checker program displays "OK" and then give a grade based on the size of the list of instructions: 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.



#### Push\_swap - Advanced version

If the following test fails, no points will be awarded for this section. Move to the next one.

- Run "\$>ARG="<500 random values>"; ./push\_swap \$ARG | ./checker \$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 then give a grade based on 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

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.



## **Bonus**

Reminder: Remember that for the duration of the defence, no segfault, nor other unexpected, premature, uncontrolled or unexpected termination of the program, else the final grade is 0. Use the appropriate flag. This rule is active throughout the whole defence. We will look at your bonuses if and only if your mandatory part is EXCELLENT. This means that you must

complete the mandatory part, beginning to end, and your error management needs to be flawless, even in cases of twisted or bad usage. So if the mandatory part didn't score all the point during this defence bonuses will be totally IGNORED.

#### Some bonuses

To deserve being considered as such, a bonus must be:

- Useful (you will judge for yourself), no need to exaggerate.
- Well done
- Operational, it cannot generate any errors.

ex: -v to display the stacks during processing, -c to display with colours, etc...

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

# **Ratings**

	Don't forget to check the fl	ag correspondin	g to the defense
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└ Ok	☐ Outstanding project			
☐ Empty work ☐ Inc	complete work	$\square$ No author file		
$\overline{\mathcal{W}}$ Invalid compilation	□ Norme	☐ Cheat		
d Crash		Leaks		
Conclusion				
Leave a comment on this evaluation				

**Finish evaluation**