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(https://profile.intra.42.fr)



poliveir

Remember that the quality of the defenses, hence the quality of the of the school on the labor market depends on you. The remote defence during the Covid crisis allows more flexibility so you can progress into your curriculum, but also brings more risks of cheat, injustice, laziness, that will harm everyone's skills development. We do count on your maturity and wisdom during these remote defenses for the benefits of the entire community.

# SCALE FOR PROJECT MINISHELL (/PROJECTS/42CURSUS-MINISHELL)

You should evaluate 2 students in this tean



Git repositor

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## **Introduction**

Please respect the following rules:

- Remain polite, courteous, respectful and constructive throughout the evaluation process. The well-being of the community depends on it.
- Identify with the person (or the group) evaluated 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 your peers 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
- Double-check that the GiT repository belongs to the student or 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 you and make you evaluate something other than the content of the official repository.
- To avoid any surprises, carefully check that both the evaluating and the evaluated students have reviewed the possible scripts used to facilitate the grading.
- If the evaluating student has not completed that particular project yet, it is mandatory for this student to read the entire subject before starting the defence.
- Use the flags available on this scale to signal an empty repository, non-functioning program, norm error, cheating etc. In these cases, the grading is over and the final grade is 0 (or -42 in case of cheating). However, except for cheating, you are encouraged to continue to discuss your work (even if you have not

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> finished it) to identify any issues that may have caused this failure and avoid repeating the same mistake in the future.

> - Remember that for the duration of the defense, no segfault, no other unexpected, premature, uncontrolled or unexpected termination of the program, else the final grade is 0. Use the appropriate flag.

You should never have to edit any file except the configuration file if it exists. If you want to edit a file, take the time to explicit the reasons with the evaluated student and make sure both of you are okay with this.

- 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**

subject.pdf (https://cdn.intra.42.fr/pdf/pdf/28507/en.subject.pdf)

# **Mandatory Part**

#### Compile

- USE make -n to see if compilation use -Wall -Wextra -Werror if not use invalid compilation flags
- minishell Compile without errors if not use flags
- makefile must not re-link

 ✓ Yes  $\times$ No

#### Simple Command & global

- Execute a simple command with an absolute path like /bin/ls or any other command without options
- How many global variables? why? Give a concrete example of why it feels mandatory or logical.
- Test an empty command.
- Test only spaces or tabs.
- if something crashes use the crash flag.
- if something is not working use the incomplete work flag.

 ✓ Yes  $\times$ No

#### **Arguments & history**

- Execute a simple command with an absolute path like /bin/ls or any other command with arguments but without quotes and
- Repeat multiple times with different commands and arguments
- if something crashes use the crash flag.
- if something is not working use the incomplete work flag.

 $\times$ No ✓ Yes

#### echo

- Execute the echo command with or without arguments or -n
- Repeat multiple times with different arguments
- if something crashes use the crash flag.
- if something is not working use the incomplete work flag.

 $\times$ No ✓ Yes

exit

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- Execute exit command with or without arguments
- Repeat multiple times with different arguments
- Don't forget to relaunch the minishell
- if something crashes use the crash flag.
- if something is not working use the incomplete work flag.

✓ Yes

 $\times_{\mathsf{No}}$ 

#### Return value of a process

- Execute a simple command with an absolute path like /bin/ls or any other command with arguments but without quotes and double quotes then execute echo \$?
- Check the printed value. You can repeat the same in bash and compare it.
- Repeat multiple times with different commands and arguments, use some failing commands like '/bin/ls filethatdoesntexist'
- anything like expr \$? + \$?
- if something crashes use the crash flag.
- if something is not working use the incomplete work flag.

✓ Yes

 $\times_{\mathsf{No}}$ 

#### Signals

- Try ctrl-C in an empty prompt should show a new line with a new prompt
- Try ctrl- $\backslash$  in an empty prompt should not do anything
- Try ctrl-D in an empty prompt should quit minishell --> RELAUNCH!
- Try ctrl-C in a prompt after you wrote some stuff should show a new line with a new prompt
- The buffer should be clean too, press "enter" to make sure nothing from the old line is executed.
- Try ctrl-D in a prompt after you wrote some stuff should not do anything
- Try ctrl-\ in a prompt after you wrote some stuff should not do anything!
- Try ctrl-C after running a blocking command like cat without arguments or grep "something"
- Try ctrl-\ after running a blocking command like cat without arguments or grep "something"
- Try ctrl-D after running a blocking command like cat without arguments or grep "something"
- Repeat multiple times with different commands
- if something crashes use the crash flag.
- if something is not working use the incomplete work flag.

✓ Yes

imesNo

#### **Double Quotes**

- Execute a simple command with arguments but this time double quotes (you should include whitespaces)
- a command like : echo "cat lol.c | cat > lol.c"
- anything except \$.
- if something crashes use the crash flag.
- if something is not working use the incomplete work flag.

✓ Yes

 $\times$ No

#### **Single Quotes**

- Execute commands with single quotes as an argument
- Try empty arguments
- Try environment variables, whitespaces, pipes, redirection in the single quotes
- echo '\$USER' must print \$USER
- Nothing should be interpreted

✓ Yes

 $\times$ No

#### env

- Check if env shows you the current environment variables

✓ Yes

 $\times$ No

- Export environment variab	les, create new ones and replace old ones	
- Check them with env		
	⊗ Yes	XNo
	⊕ res	/\IV0
unset		
- Export environment variab	les, create new ones and replace old ones	
- Use unset to remove some	·	
- Check the result with env		
		×N₀
cd		
	ove the working directory and check if you are in working and not working cd	the right directory with /bin/ls
	⊘ Yes	imesNo
pwd		
- Use the command pwd		
- Repeat multiple times in mu	ultiple directories	
	-/	
		XNo
Relative Path		
- Execute commands but this - Repeat multiple times in mu	stime use a relative path Ultiple directories with a complex relative path (lo	ts of)
	⊗ Yes	×N₀
Environment Path		
- Execute commands but this	s time without any path. (Is, wc, awk etc)	
	k if it is not working anymore	
- Set the \$PATH to a multiple	e directory value (directory1:directory2) and che	ck that directories are checked in order from left to ri
	a/	\ <u>\</u>
		×No
Redirection		
- Execute commands with re		l e ele
<ul> <li>Repeat multiple times with</li> <li>Check if multiple of the san</li> </ul>	different commands and arguments and sometime	es change > with >>
<ul> <li>Check it multiple of the san</li> <li>Test &lt;&lt; redirection (it doesn</li> </ul>		
	b	
	⊗ Yes	×No
Pipes		
-	nes like 'cat file I gren bla I moro'	
	pes like 'cat file   grep bla   more' different commands and arguments	
	s like 'ls filethatdoesntexist   grep bla   more'	
- Try to mix pipes and redire		
		$\times$ No

#### Go Crazy and history

- type a command line then use ctrl-C then press enter the buffer should be clean and nothing try to execute.
- $\mbox{\sc Can}$  we navigate through history with up and down and retry some command
- Execute commands that should not work like 'dsbksdgbksdghsd' and check if the shell doesn't crash and prints an error
- cat | cat | Is behave "normally"
- Try to execute a long command with a ton of arguments
- Have fun with that beautiful minishell and enjoy it



 $\times_{\mathsf{No}}$ 

#### **Environment Variables**

- Execute echo with some \$ variables as arguments
- Check that \$ is interpreted as an environment variable
- Check that double quotes interpolate \$
- Check that \$USER exists or set it.
- echo " $\SIR$ " should print the value of  $\SIR$



 $\times$ No

### **Bonus**

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 must be flawless, even in cases of twisted or bad usage. So if you didn't score all the points on the mandatory part during this defense bonuses will be totally ignored.

#### And, Or

- Use &&,  $\mid \mid$  and parenthesis with commands and check if it works as bash



 $\times$ No

#### WildCard

- Use wildcards in arguments for the local directory.



 $\times_{\mathsf{No}}$ 

#### Surprise (or not...)

- set USER environment variable.
- Test echo "'\$USER'" this should print 'USER\_VALUE'
- Test echo ""\$USER"' this should print "\$USER"



 $\times$ No

# **Ratings**

Don't forget to check the flag corresponding to the defense



# Conclusion

Leave a comment on this	s evaluation		
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	Finish evaluation		
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		Terms of use for video surveillance Rules of procedure	Finish evaluation  Finish evaluation  Terms of use for video surveillance Rules of procedure Declaration on the use of cookies