<u>minishell</u> Scale for project minishell You should evaluate 2 students in this team Git repository git@vogsphere.42lausanne.c 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 GiT repository. - 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 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 **Mandatory Part** Compile - USE make -n to see if compilation use -Wall -Wextra -Werror if not use invalid compilation flags 1: Compile · minishell Compile without errors if not use flags · makefile must not re-link O Yes O No Simple Command & global - Execute a simple command with an absolute path like /bin/ls or any other command without options 2.1 - How many global variables? why? Give a concrete example of why it feels mandatory or logical. 2.2 2: Simple Command · Test an <mark>empty command</mark>. · Test only <mark>spaces or tabs</mark>: - if something crashes use the crash flag. - if something is not working use the incomplete work flag. O Yes O No **Arguments & history** - Execute a simple command with an absolute path like /bin/ls or any other command with arguments but without quotes and double quotes 3: Argument · 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. O Yes O No 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. O Yes O No exit - 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. O Yes O 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. O Yes O No **Signals** - Try ctrl-C in an empty prompt should show a new line with a new prompt · Try ctrl-\ 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

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- 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. O Yes O No **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. O Yes O 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 O Yes O No Check if env shows you the current environment variables O Yes O No

- Export environment variables, create new ones and replace old ones

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· Repeat multiple times with working and not working cd

- Repeat multiple times in multiple directories

- Execute commands but this time use a relative path

- Repeat multiple times in multiple directories with a complex relative path (lots of ..)

- Repeat multiple times with different commands and arguments and sometimes change > with >>

- type a command line then use ctrl-C then press enter the buffer should be clean and nothing try to execute.

- Execute commands that should not work like 'dsbksdgbksdghsd' and check if the shell doesn't crash and prints an error

usage. So if you didn't score all the points on the mandatory part during this defense bonuses will be totally ignored.

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

- Execute commands but this time without any path. (ls, wc, awk etc...)

- Unset the \$PATH and check if it is not working anymore

- Execute commands with redirections < and/or >

- Check if multiple of the same redirections fail

- Try to mix pipes and redirections.

- Test << redirection (it doesn't need to update history).

- Execute commands with pipes like 'cat file | grep bla | more' - Repeat multiple times with different commands and arguments

- Try to execute a long command with a ton of arguments - Have fun with that beautiful minishell and enjoy it

- Execute echo with some \$ variables as arguments - Check that \$ is interpreted as an environment variable

- echo "\$USER" should print the value of \$USER

- Use wildcards in arguments for the local directory.

- Test echo ""\$USER"" this should print 'USER_VALUE'

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

Empty work No author file Invalid compilation Norme Cheat Crash Leaks Forbidden function

Ok ○ Empty work ○ No author file ○ Invalid compilation ○ Norme ○ Cheat ○ Crash ○ Outstanding project ○ Leaks ○ Forbidden Function

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- Test echo ""\$USER"" this should print "\$USER"

- Check that double quotes interpolate \$ Check that \$USER exists or set it.

- Try some failing commands like 'ls filethatdoesntexist | grep bla | more'

- Can we navigate through history with up and down and retry some command

- Use &&, || and parenthesis with commands and check if it works as bash

- Use the command cd to move the working directory and check if you are in the right directory with /bin/ls

- Set the \$PATH to a multiple directory value (directory1:directory2) and check that directories are checked in order from left to right

- Check them with env

- Use unset to remove some of them

· Check the result with env

try '.' '..' as arguments too

- Use the command pwd

O Yes O No

O Yes O No

O Yes O No

O Yes O No

Relative Path

O Yes O No

Bonus

And, Or

O Yes O No

O Yes O No

O Yes O No

Conclusion

Finish evaluation

Cancel | Send

Close

Flash modal content (raw)

Ok Outstanding project

Leave a comment on this evaluation

Ratings

Surprise (or not...)

- set USER environment variable.

WildCard

Environment Variables

Go Crazy and history

- cat | cat | ls behave "normally"

Pipes

Redirection

Environment Path

pwd

unset