Bug Reports for X

1. **General method used in testing**
    - Functional testing
        - Compare team X's program actual output with expected output (based on Milestone 2's command specification)
        - Took into account team X's assumption file and evaluate whether the assumptions are fair & consistent with Milestone 2's command specification
        - Check if the implemented command can raise errors that we found during TDD and previous milestones
        - Run our team implemented system tests against team X's program to see if all tests pass
    - Structural testing.
        - Inspect team X's codes to discover their false in logic and execution paths that would lead to errors.
        - Inspect team X's codes to see if their implementation are consistent with the interfaces specified
2. **Bug reports table**

Bug #	Description	Testcase	Comments (for marking)
1 Test ID: diff/10	Expected: (Empty string with newline) Actual: Files [<FILE1> <FILE1>] differ Remark: <FILE1> can also be <FOLDER1>	diff -q <FILE1> <FILE1>	
2 Test ID: ls/20	Expected: Normal execution Actual: Illegal char <:> at index 15: <CURRENT_DIRECTORY><CURRENT_DIRECTORY>	ls -R	
3 Test ID: find/20	Expected: existing-file-name needs to be in “” Actual: execute normally	find folder -name existing-file-name	
4 Test ID: cp/20	Expected: non-existing-folder has content of non-empty-folder Actual: non-existing-folder is empty	cp non-empty-folder non-existing-folder	
5 Test ID:	Expected: 0 0 0 Actual: Go into a non-stop	wc <NEW_LINE> <CTR_D>	

NA	loop with output - “$”		
6 Test ID: cut/10	Expected: <CHAR_AT_POSTITION_1><CHAR_AT_POSITION_2> Actual: Invalid Range Error thrown Remark:	cut -c 2,1 <FILE_NAME>	
7 Test ID: find/20	Expected: Missing -name Actual: No file specified message thrown	find <FOLDER> <EXISTING_FILE_IN_FOLDER>	
8 Test ID: cut/11	Expected: <WHITE_SPACE><CHAR_AT_POSITION_5> Actual: <CHAR_AT_POSITION_5> Remark:	cut -c 2,5 <FILE_NAME> (where character at position 2 is a white space, character at position 5 is not a white space)	
9 Test ID: cut/12	Expected: (Empty string with newline) Actual: Invalid Range Error thrown Remark:	cut -c 2-1 <FILE_NAME>	
10 Test ID: mv/20	Expected: content of the folder Actual: ls: Unexpected error occurred!	mv CURRENT_FOLDER_ABSOLUTE_PATH DETINATION_ABSOLUTE_PATH; ls Or mv CURRENT_FOLDER DESTINATION_DIFF_LEVEL; ls	
11 Test ID: exit/10	Expected: (Program exits with code 0 without printing <MESSAGE>) Actual: (Program prints <MESSAGE> then exits with code 0) Remark:	exit ; echo <MESSAGE>	
12	Expected:	sed "s/^/>/" <FILE_NAME>	

Test ID: sed/10	><Line_1><NEWLINE> ><Line_2><NEWLINE> … Actual: The output is as expected. However, the file <FILE_NAME>'s content is changed to the above output. Its content should remain the same. Remark:		
13 Test ID: NA	Expected: rename folder Actual: The process cannot access the file because it is being used by another process.	mv . <ANY_FOLDER_NAME>	
14 Test ID: NA	Expected: <FILE> is not directory Actual: "<FOLDER1> is not directory" or "too many arguments" Remark: Bad error message	mv <FOLDER1> <FOLDER2> <FILE>	
15 Test ID: NA	Expected: NON_EMPTY_DIRECTORY is a non-empty directory Actual: NON_EMPTY_DIRECTORY is a directory Remark: Bad error message	rm -d <NON_EMPTY DIRECTORY>	
16 Test ID: ls/21	Expected: Normal execution Actual: Error message	ls -d */	
17 Test ID: rm/23	Expected: List folder content of parent folder or raise error remove current folder Actual: Error message - "ls: Unexpected error occurred!"	cd folder rm -d ../folder ls	
18 Test ID: call/01	Expected: Normal execution Actual: "error: start -1, end 1, length 1"	paste a.txt a.txt > a.txt echo "----" paste a.txt	

19 Test ID: exit/01	Expected: Exit command with extra arguments should be rejected. Actual: No error	exit 1 exit	
20 Test ID: grep/01	Expected: Grep should stop reading stdin when EOF is reached. Actual: the program hangs	grep a	
21 Test ID: NA	Expected: After finish first command, waiting for second command Actual: Shell stops	<COMMAND> <STDIN> <CTR_D> Example: grep a efgnoinegf oienfoinfeio <CTR_D>	
22 Test ID: NA	Expected: Print <CONTENT> if it contains <PATTERN> Actual: The program exits	grep <PATTERN> (hits Enter key) <CONTENT> (hits Crl + D to exit Stdin)	
23 Test ID: call/05	Expected: syntax error Actual: “a\n”	>a | ls	
25 Test ID: call/06	Expected: syntax error Actual: “a\n”	echo >a <a | ls	
26 Test ID: ls/04	Expected: some error Actual: error: String index out of range: 0	ls “”	
27 Test ID: cut/13	Expected: Invalid argument error thrown Actual No error thrown. Program read data from stdin	cut	
28 Test ID: grep/10	Expected: Invalid argument error thrown Actual No error thrown. Program read data from stdin	grep <FILENAME>	
29 Test ID: NA	Expected: error Actual: “error: null” (no unit test created)	echo > "/"	

30 Test ID: NA	Expected: error (3.txt is not a directory) Actual: error (1.txt is not a directory)	echo "a" > 1.txt echo "b" > 2.txt echo "c" > 3.txt echo --- cp 1.txt 2.txt 3.txt echo --- paste 1.txt paste 2.txt paste 3.txt	
31 Test ID: ls/05	Actual: “ls: cannot access '*/*': No such file or directory” Expected: “c/c.txt\nd/d.txt\n”	# c and d are empty folders echo > c/c.txt echo > d/d.txt ls */*	
32 Test ID: sed/01	Expected: “a\n” Actual: “aaaaa\n”	echo aaaaa | sed "s/aaaa//2" | paste -	
33 Test ID: sed/11	Expected: Invalid argument thrown, as there should be only 1 input file Actual: No error thrown	sed <PATTERN> <FILE1> <FILE2>	
34 Test ID: glob/02	Expected: “a/b/c\n” Actual: “ls: cannot access 'a/*/c': No such file or directory”	# create an empty file at a/b/c ls a/*/c	
35 Test ID: call/09	Expected: syntax error Actual: “ls\n”	# assume the current directory is empty echo > ls echo > echo *	
36 Test ID: wc/01	Expected: no error Actual: program hangs	wc	