

Group I

Bug Report No.	Description	Testcase	Comments
1.	<p><u>File names with flags as names (i.e. -d.txt)</u></p> <p>rm - File named “-d” or “-r” cannot be removed with rm command. “Missing Argument” error thrown. Same goes for Directories and text files named a similar fashion.</p> <p>cp - copy has the same issue as the above.</p> <p>diff - diff command has the same issue as the above.</p> <p>wc - wc command has the same issue as the above.</p>	<p>rm -d rm -r rm -d “-d” rm -d “-r” rm -d.txt rm -r.txt</p>	
2.	<p>rm - Program exits with exit code 0 and throws a “null” message when trying to remove a directory containing a directory with no permissions recursively.</p>	<p>rm -r test (test contains another directory with no permissions)</p>	
3.	<p>paste - Program throws “Null arguments” error when trying to input a file.</p> <p>However, we noted that the following command still works: “paste - < test.txt”</p>	<p>paste < test.txt</p>	
4.	<p>paste - Program still generates an empty output file despite throwing an error of “Permission denied” when one or two of the input files have no permissions.</p>	<p>paste test.txt test2.txt > testing.txt (where either or both test.txt and test2.txt has no permissions)</p>	
5.	<p><u>I/O redirection of input/output</u></p> <p>I/O redirection of output into a file with no permissions will result in a “No such file or directory” error instead of a “Permission denied” error.</p> <p>I/O redirection of input into a</p>	<p>sed “s/^/> /” test.txt > file.txt</p> <p>echo “test” > file.txt</p> <p>diff test.txt test2.txt > file.txt</p> <p>paste < file.txt</p>	

	command with no permissions will result in “No such file or directory” error instead of a “Permission denied” error.	(where file.txt has no permissions)	
6.	sed - X value in the replacement rule does not seem to work at all. Only 1 works as intended, and other numbers don’t seem to have any effect.	sed “s/^/> /2” file.txt (where file.txt’s contents are: A B C and B does not get replaced although it is the 2nd match)	
7.	diff - Program output error message that does not fit the situation. It did not detect whether the given file/directory is valid. It just threw a “diff: Can not diff between a file and a directory” error Similarly, this occurs when one or both of the files have no permissions (threw “No such file or directory” error)	diff validFile.txt nonexistent diff nonexistent validDir diff nonexistent1 nonexistent2	
8.	diff - Executing diff command on two same mp3 files (each is 7.4mb) causes the program to exit with error code 1, throwing the following: “java.lang.OutOfMemoryError: Java heap space” error with no exception caught. The same occurs even if both are different mp3 files.	diff test.mp3 test2.mp3 (where test.mp3 and test2.mp3 are identical files) diff test.mp3 test2.mp3 (where test.mp3 and test2.mp3 are different files)	
9.	diff - Executing diff command on a text file and an MP3 file outputs gibberish instead of “Binary files xxx and xxx differ” message. The same occurs when trying to execute diff command on two different binary files. The expected output should be “Binary files xxx and xxx differ” but instead,	diff test.mp3 test.txt diff test.gif test2.gif (where test.gif and test2.gif are different) diff test.bmp test2.bmp (where test.bmp and test2.bmp are different)	

	gibberish was output.		
10.	<p>diff - Diff command could not work when there is a common directory in both directory.</p> <p>There are two directories, test1 that contain A.txt, test2 that contain B.txt.</p> <p>A common directory "common" is also in both directory. However, diff command failed.</p> <pre>C:\repos\I> diff test1 test2 diff: shell: No such file or directory</pre>	<pre>diff test1 test2 (test1 contain A.txt, test2 contain B.txt, both contain common.txt, common)</pre>	
11.	<p>diff - Command could not print subdirectory files.</p> <p>In relation to the immediate above test case, the directory test1 now contains A.txt, a subdirectory common which contains testa.txt, whereas directory test2 contains B.txt.</p> <p>However, the diff command did not show that test1 contains common\testa.txt</p> <pre>C:\repos\I> diff test1 test2 Only in test1: A.txt Only in test2: B.txt Only in test1: common</pre>	<pre>Diff test1 test2 (test1 contain A.txt, common, common\testa.txt, test2 contain B.txt)</pre>	
12.	<p>mv - Source folder with a folder that does not have permission inside was not moved, but it did not give a permission error. Instead, it gave the message "C:\Users\movefolder -> C:\repos\I\movefolder".</p> <p>The message may cause confusion indicating that the folder was moved to the destination, but it was actually not moved.</p>	<pre>mv C:\Users\movefolder .</pre>	
13.	grep - Grep hangs application when incorrect command is entered.	grep test	

14.	<p>grep - Command hangs when backquote is the search term..</p> <pre>C:\repos\I> grep "`" test1.txt</pre> <p> </p>	grep "" test1.txt	
15.	<p>cp - Command did not account for copying a file to itself. Different kind of path to the destination file is tested.</p> <p>The file is instead deleted after the operation is executed.</p> <pre>C:\repos\I> cp test6.txt test6.txt C:\repos\I\test6.txt C:\repos\I> cp test5.txt . C:\repos\I\test5.txt C:\repos\I> cp test4.txt C:\repos\I\ C:\repos\I\test4.txt C:\repos\I> cp test3.txt C:\repos\I\test3.txt C:\repos\I\test3.txt</pre>	<pre>cp test6.txt test6.txt cp test5.txt . cp test4.txt DIR_path\ cp test3.txt DIR_PATH\test3.txt</pre>	
16.	<p>cp - Command did not account for copying of files that did not exist. No proper message is thrown to inform the user that the copy had failed.</p> <pre>C:\repos\I> cp nonexistent.txt nonexistent2.txt C:\repos\I\nonexistent.txt</pre> <p>Similarly, this is also for moving a file that does not exist</p> <pre>C:\repos\I> mv nonexistent.txt C:\repos\I\test5.txt C:\repos\I\nonexistent.txt</pre>	<pre>cp nonexistent.txt nonexistent2.txt mv nonexistent.txt VALID_PATH\test5.txt</pre>	
17.	<p>mv - Command allowed moving of a file to itself for certain situations which is inconsistent.</p> <p>For instance moving a file to itself with respective to local path or exact path is allowed but using "." to indicate local directory is not allowed</p> <p>The latter two commands in the screenshot will delete the move file instead and no proper message is thrown to inform the user that the move had failed.</p>	<pre>mv test3.txt test3.txt mv EXACT_PATH\test3.txt EXACT_PATH\test3.txt Mv test3.txt EXACT_PATH Mv test2.txt .</pre>	

	<pre> C:\repos\I> mv C:\repos\I\test3.txt C:\repos\I\test3 C:\repos\I> mv test3.txt test3.txt C:\repos\I> mv test3.txt . C:\repos\I\test3.txt C:\repos\I> mv test2.txt C:\repos\I\ C:\repos\I\test2.txt C:\repos\I> </pre>		
18.	<p>diff - Unable to test for diff command with file as stdin. It will throw “diff: Insufficient arguments”.</p> <p>Furthermore, Assumptions document contains incomplete assumptions - i.e. the last line of diff assumptions writes: “While diff between stdin with file, no matter what arg order is given, the”. This made testing difficult as assumptions were unclear.</p> <pre> C:\repos\I> paste test1.txt diff test2. diff: Insufficient arguments C:\repos\I> diff test1.txt < test2.txt diff: Insufficient arguments </pre>	<pre> Paste test1.txt diff test2.txt Diff test1.txt < test2.txt </pre>	
19.	<p>Command Substitution - This is not working. For the example given in the project description, “paste `ls x*` > all.txt”, it is not working as intended.</p> <pre> C:\repos\I> paste `ls x*` > all.tx Illegal char <:> at index 6: xxxxxx </pre>	<pre> paste `ls x*` > all.txt </pre>	
20.	<p>ls + globbing - Inconsistent line spacing shown / additional new lines.</p> <p>When ls is used on current directory, all of the content are listed without space as follow</p>	<pre> ls EXACT_PATH ls * </pre>	

	<pre>C:\repos\I> ls C:\repos\I .\: .idea all.txt all2.txt Assumptions.pdf CS4218-Shell-2020.iml pom.xml README.md src target test1.txt test2.txt xxxxxx _test __MACOSX</pre> <p>However the command “ls *”, there is inconsistent spacing. Part of the output</p> <pre>C:\repos\I> ls * .idea: .name checkstyle-idea.xml compiler.xml encodings.xml libraries misc.xml modules.xml workspace.xml Assumptions.pdf CS4218-Shell-2020.iml README.md</pre>		
21.	<p>globbing - This does not work with subdirectories.</p> <pre>C:\repos\I> echo .*\ .*\ C:\repos\I> echo .*\test.txt Illegal char <*> at index 2: .*</pre>	<pre>echo .*\ echo .*\test.txt</pre>	
22.	<p>IO redirection + paste - Error is thrown. The test is an example from project description page 9.</p>	<pre>paste < test1.txt</pre>	

	<p>There is no assumption that paste does not work with stdin.</p> <pre>C:\repos\I> paste < test1.txt paste: Null arguments</pre>		
23.	<p>IO redirection + wc - The first input file is missing</p> <pre>C:\repos\I> wc < test1.txt test2.txt test3.txt 2 3 13 test2.txt 2 3 13 test3.txt 4 6 26 total</pre> <p>Paste integrate with wc also resulted in input (details of individual files) to go missing</p> <pre>C:\repos\I> paste test1.txt test2.txt wc 2 6 28</pre>	<pre>wc < test1.txt test2.txt test3.txt paste test1.txt test2.txt wc</pre>	
24.	<p>mv - Assumption in mv is bugged</p> <p>Assumptions :</p> <ul style="list-style-type: none"> When target is a exist file/folder: <ul style="list-style-type: none"> mv file1 file2, <ul style="list-style-type: none"> without -n flag: exception given -n flag: replace mv file1 folder1 <ul style="list-style-type: none"> move file1 into folder1 mv folder1 folder2, <hr/> <ul style="list-style-type: none"> without -n flag: move folder1 into folder2 given -n flag: replace folder2 with folder1 <p>Command format:</p> <pre>mv [-n] SOURCE TARGET mv [-n] [SOURCE] ... DIRECTORY</pre> <p>For the below two commands, initially move2 contains test.txt</p> <p>Both commands “mv move1 move2” and “mv -n move1 move2” resulted in folder move2 additionally contains folder move1.</p> <p>There is no difference in the outcome which seemed to contradict the description of the command.</p>	<pre>mv move1 move2 mv -n move1 move2</pre>	
25.	<p>globbing - It failed on the second glob.</p> <p>When used in conjunction with ls, the first command “ls tem*” works</p>	<pre>ls temp* ls temp*\temporar*</pre>	

	<p>but the second command “ls tem*\temporar*” failed.</p> <pre>C:\repos\I> ls tem* temp: temporary C:\repos\I> ls tem*\temporar* Illegal char <*> at index 3: tem*</pre>																						
26.	<p>find - Unable to detect directory which already give permission to the authenticated users of the computer (modify, read & execute, list folder content, read, write)</p> <p>Even if this is not allowed, a message that related to the current situation should be thrown to the user</p> <pre>C:\repos\I> find D:\ -name "test2.tx find: D:: No such file or directory</pre>	find D:\ -name “test2.txt”																					
27.	<p>paste + sort - The sort -r did not reverse the output that is passed through the “ ” operator</p> <pre>C:\repos\I> paste test1.txt test src: main C:\repos\I> paste test1.txt sort test src: main</pre>	paste test1.txt sort -r																					
28.	<p>Paste assumption did not tally with the example given in the assumption document.</p> <p>The output shows that the stdin is appended before A.txt and B.txt.</p> <table border="1"> <thead> <tr> <th>A.txt</th><th>stdin</th><th>B.txt</th><th>output</th></tr> </thead> <tbody> <tr> <td>1</td><td>A</td><td>1</td><td>A 1 1</td></tr> <tr> <td>2</td><td>B</td><td>3</td><td>B 2 3</td></tr> <tr> <td>3</td><td>C</td><td>5</td><td>C 3 5</td></tr> <tr> <td>4</td><td>D</td><td>7</td><td>D 4 7</td></tr> </tbody> </table>	A.txt	stdin	B.txt	output	1	A	1	A 1 1	2	B	3	B 2 3	3	C	5	C 3 5	4	D	7	D 4 7	<p>paste A.txt - B.txt < stdin.txt paste stdin.txt paste A.txt - B.txt</p>	
A.txt	stdin	B.txt	output																				
1	A	1	A 1 1																				
2	B	3	B 2 3																				
3	C	5	C 3 5																				
4	D	7	D 4 7																				

