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# **System Programming**Coursework Testing Documentation

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## **Test Table**

Features	Testing description & Steps	Expected result	Actual result
Automatically creating the .trashCan folder	Running the command, bash safeDel.sh, for the first time.	A hidden folder named trashCan should be automatically created on the user's directory.	A hidden folder named trashCan automatically created on user's directory.  Refer to img.1 in the appendix
Deleting a single file to the trashCan	Deleting a file from the current folder using the command safeDel. Steps:  1. Create a file: touch file1.txt  2. Delete file: bash safeDel.sh file1.txt	file1.txt is moved to the trashCan folder and	file1.txt is moved to the trashCan folder. Refer to img.6 in appendix
Deleting several files at once	Deleting files from the current folder using the command safeDel. Steps:  1. Create a file: touch file{25}.txt  2. Delete files: bash safeDel.sh file2.txt file3.txt file4.txt file5.txt	file2.txt, file3.txt, file4.txt and file5.txt are moved to the trashCan folder and	Deleted files moved to the trashCan folder. Refer to img.7 in appendix
Listing files in the trashCan folder from menu option	Listing the files of the .trashCan folder using bash safeDel.sh command	Display all files in trashCan folder	Refer to img.8 in appendix
Recover a file with -r option	Reovering a file in the .trashCan folder to the current folder.	File recovered and a message printed informing the outcome of the operation	Refer to img.9 in appendix
Recover a file using the menu	Reovering a file in the .trashCan folder to the current folder.	File recovered and a message printed informing the outcome of the operation	Refer to img.10 in appendix
Listing files in the trashCan folder from the menu	Listing the files of the .trashCan folder using bash safeDel.sh command	Display all files in trashCan folder	Refer to img.11 in appendix
Listing files when trashCan is empty or does not exist	Test what will happen when the trashCan folder is empty and the user tries tries to list the its content. Steps to follow:  1. Delete files: rm \$HOME/.trashCan/*  2. Delete trashCan: rmdir \$HOME/.trashCan  3. List content: ./safeDel.sh -l or option 1 in the menu.	Messages informing the outcome of the operation	A message informing the user that there are no files in the trashCan folder. Refer to img2 and img.3 in the appendix.
Recovering a file that does not exist or when trashCan is empty.	Test what will happen when the trashCan folder is empty and the user tries to check the folder usage. Steps to follow:  1. Delete files: rm \$HOME/.trashCan/*  2. Delete trashCan: rmdir \$HOME/.trashCan  3. List content: ./safeDel.sh -r file.txt	Messages informing the outcome of the operation	A message informing the user that the file.txt doesn't exist. If trashCan does not exist, it creates the trashCan folder and also informs the user that the folder was just created and is empty. Refer img.4 in the appendix

Displaying total usage when trashCan is empty or does not exist	Test what will happen when trashCan folder is empty and the user tries to check the folder usage. Steps to follow:  1. Delete files: rm \$HOME/.trashCan/*  2. Delete trashCan: rmdir \$HOME/.trashCan  3. List content: ./safeDel.sh -t	Messages informing the outcome of the operation	If trashCan does not exist, it creates the trashCan folder and informs the user that the folder was just is created.  A second message informing the user that there are no files in the trashCan folder. img.5
Monitor changes in the trashCan	Monitor when files are created, deleted from the trashCan or changed while stored in the trashCan.	Messages informing the changes in the trashCan folder.	Refer to img.12 in the appendix

### **Appendix**

#### img.1

```
ticioguitar@ticioguitar-hp:~/Desktop/Systems Programming/Assignments/cwk1_skeleton$ rmdir $HOME/.trashCan ticioguitar@ticioguitar-hp:~/Desktop/Systems Programming/Assignments/cwk1_skeleton$ ./safeDel.sh Folder .trashCan created

1) list 3) delete 5) watch 7) exit 2) recover 4) total 6) kill Enter option:
```

#### img.2

#### img.4

#### img.5

#### img.7

```
ticioguitar@ticioguitar-hp:~/Desktop/Systems Programming/Assignments/cwkl_skeleton$ touch file{2..5}.txt
ticioguitar@ticioguitar-hp:~/Desktop/Systems Programming/Assignments/cwkl_skeleton$ bash safeDel.sh file2.txt file3.txt file4.txt file5.txt
File file2.txt deleted successfully
File file3.txt deleted successfully
File file5.txt deleted successfully
File file5.txt deleted successfully

1) list 3) delete 5) watch 7) exit
2) recover 4) total 6) kill
Enter option:
```

#### img.8

```
Listing files in trashCan folder:
______
     File type
                              Size in bytes
                   Filename

    regular file

                  file1.txt
                                   0
 - regular file
                  file2.txt
                                   0
 - regular file
                  file3.txt
                                   0
 - regular file
                  file4.txt
                                   0

    regular file

                  file5.txt
                                   0
1) list 2) recover 3) delete 4) total 5) watch 6) kill 7) exit
Enter option:
```

```
ticioguitar@ticioguitar-hp:~/Desktop/Systems Programming/Assignments/cwkl_skeleton$ bash safeDel.sh -r file1.txt

File file1.txt recovered successfully and moved to /home/ticioguitar/Desktop/Systems Programming/Assignments/cwkl_skeleton

1) list 3) delete 5) watch 7) exit
2) recover 4) total 6) kill
Enter option:
```

#### img.10

```
ticioguitar@ticioguitar-hp:~/Desktop/Systems Programming/Assignments/cwk1_skeleton$ bash safeDel.sh

1) list 3) delete 5) watch 7) exit
2) recover 4) total 6) kill
Enter option: 2

Enter filename to recover: file2.txt

File file2.txt recovered successfully and moved to /home/ticioguitar/Desktop/Systems Programming/Assignments/cwk1_skeleton

1) list 2) recover 3) delete 4) total 5) watch 6) kill 7) exit
Enter option:
```

#### img.11

```
ticioguitar@ticioguitar-hp:~/Desktop/Systems Programming/Assignments/cwkl_skeleton$ bash safeDel.sh
          3) delete 5) watch
1) list
                                7) exit
2) recover 4) total
                     6) kill
Enter option: 1
            _____
          Listing files in trashCan folder:
     File type
                    Filename
                                Size in bytes
 - regular file
- regular file
                   file3.txt
                                     0
                    file4.txt
 - regular file
                    file5.txt
                                     0
1) list 2) recover 3) delete 4) total 5) watch 6) kill 7) exit
Enter option:
```

```
Nº of files in folder: 1
                             Nº of files deleted: 0
                                                        Nº of new files added: θ
Nº of files in folder: 2
                             N^{\circ} of files deleted: 0
                                                        N^{\, \rm o} of new files added: \theta
14:25:39:: File /home/ticioguitar/.trashCan/newfile.txt is a new file added into the trashCan folder
Nº of files in folder: 3
                             Nº of files deleted: 0
                                                        Nº of new files added: 1
14:25:54:: File /home/ticioguitar/.trashCan/changeInContent.txt is a new file added into the trashCan folder
Nº of files in folder: 2
                             Nº of files deleted: θ
                                                        Nº of new files added: 2
14:26:09 File /home/ticioguitar/.trashCan/newfile.txt was recovered or deleted from the trashCan folder
Nº of files in folder: 2
                             Nº of files deleted: 1
                                                        Nº of new files added: 2
Nº of files in folder: 2
                             Nº of files deleted: 1
                                                        Nº of new files added: 2
Nº of files in folder: 2
                             Nº of files deleted: 1
                                                        Nº of new files added: 2
Nº of files in folder: 2
                             Nº of files deleted: 1
                                                        Nº of new files added: 2
Nº of files in folder: 2
                             Nº of files deleted: 1
                                                        Nº of new files added: 2
```