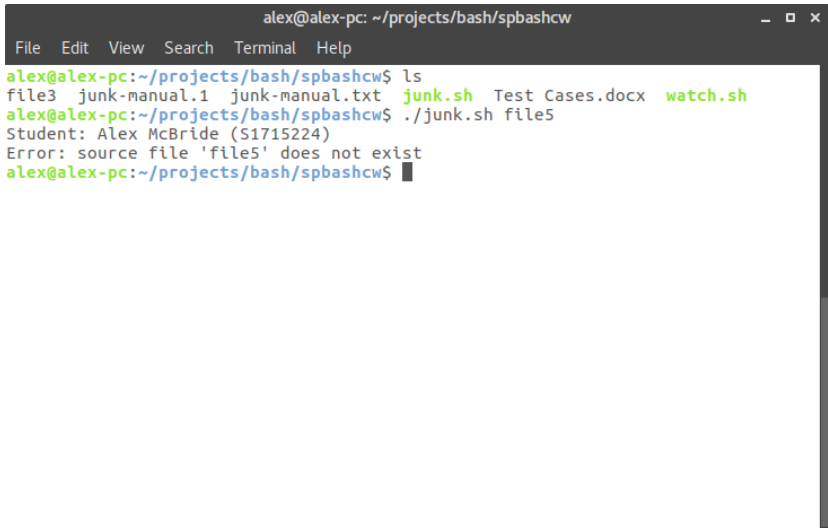| System	Junk script (Bash coursework)
Author	Alex McBride
Student ID	S1715224
Student Email	AMCBRI206@caledonian.ac.uk
Date	27/10/2017
Before	Create three files named file1, file2, file3, and file4 for testing, note the size of the files in KB. *Note: commands to be typed are highlighted in yellow.* • cd <PROGRAM DIRECTORY> • ls > file1 • ls > file2 • ls > file3

Test	001
Description	Remove junk dir and test script creates it
Input	- rm -r ~/.junkdir - Run cd ~/.junkdir and check that .junkdir does not exist - Run ./junk.sh - Press 7 to exit - Run cd ~/.junkdir again
Expected	- The message "Created junk directory '/home/<USER>/.junkdir'" was displayed during program execution - The directory .junkdir now exists
Actual	As expected
Screen	

```
                           alex@alex-pc: ~/.junkdir                    _  □  ×
 File   Edit   View   Search   Terminal   Help
alex@alex-pc:~/projects/bash/spbashcw$ rm -r ~/.junkdir/
alex@alex-pc:~/projects/bash/spbashcw$ cd ~/.junkdir
bash: cd: /home/alex/.junkdir: No such file or directory
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh
Student: Alex McBride (S1715224)
Created junk directory '/home/alex/.junkdir'
1) list     3) delete   5) watch    7) exit
2) recover  4) total    6) kill
option> 7
alex@alex-pc:~/projects/bash/spbashcw$ cd ~/.junkdir
alex@alex-pc:~/.junkdir$ █
```
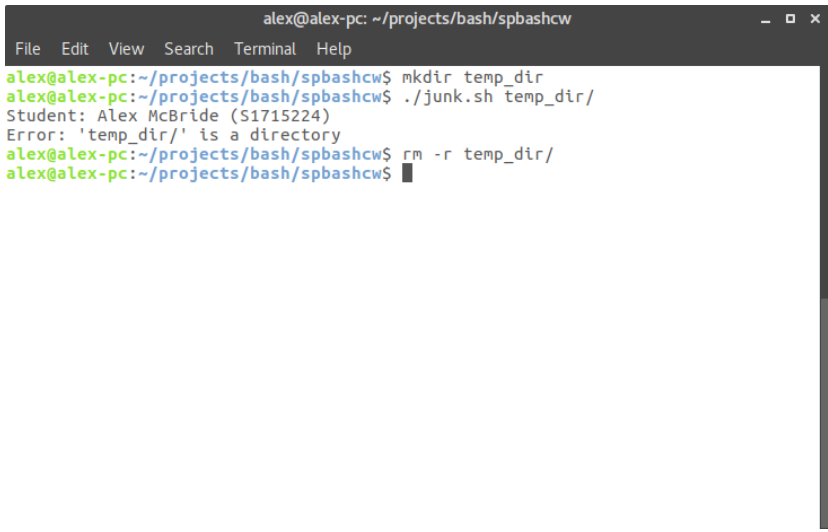
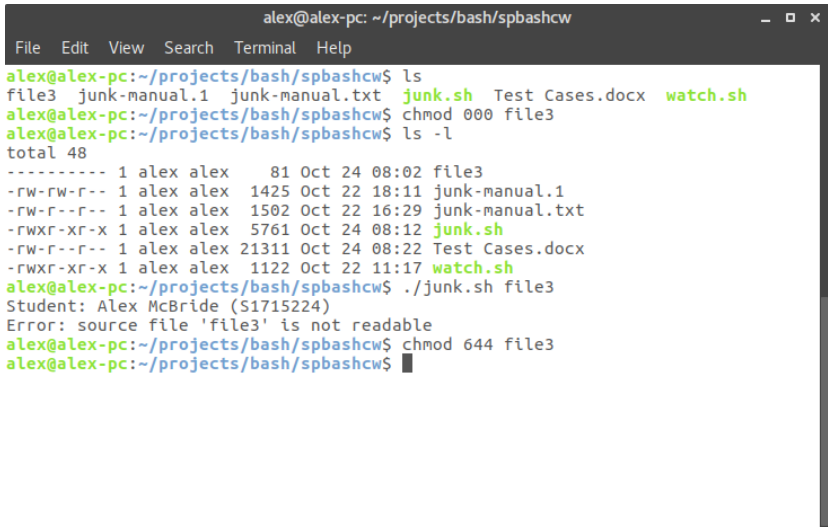| Test	002
Description	Test that selecting exit option exists program
Input	• ./junk.sh • Type 7 and press enter
Expected	• The program exits cleanly.
Actual	As expected
Screen	 alex@alex-pc: ~/projects/bash/spbashcw File Edit View Search Terminal Help alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh Student: Alex McBride (S1715224) 1) list 3) delete 5) watch 7) exit 2) recover 4) total 6) kill option> 7 alex@alex-pc:~/projects/bash/spbashcw$

Test	003
Description	Test that interrupting process displays correct message.
Input	• ./junk.sh • Enter ctrl+c
Expected	Message displayed: "Total junk files: 0 Exiting..." *Note: number of files depends on number in junk dir*
Actual	As expected
Screen	

```
alex@alex-pc: ~/projects/bash/spbashcw                    _ □ ×
File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh
Student: Alex McBride (S1715224)
1) list     3) delete   5) watch     7) exit
2) recover  4) total    6) kill
option> ^C
Total junk files: 0
Exiting...
alex@alex-pc:~/projects/bash/spbashcw$ ▊
```
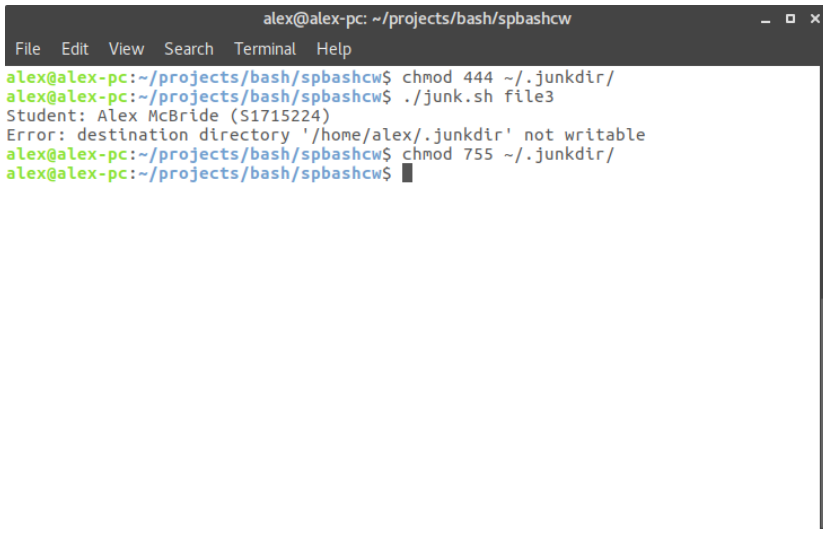
Test	004
Description	Test that junk script moves single file to junkdir
Input	• ls • ls ~/.junkdir • ./junk.sh file1 • ls • ls ~/.junkdir
Expected	• File1 is in the current directory but not in the junk directory • After junking the following message is displayed: "Junk: 1 file(s) moved to junk directory!" • The file 'file1' has been moved to the .junkdir *Note: you may get a warning about junk directory size*
Actual	As expected
Screen	

```
                    alex@alex-pc: ~/projects/bash/spbashcw                  _ □ ×
 File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls
file1  file3         junk-manual.txt  Test Cases.docx
file2  junk-manual.1  junk.sh          watch.sh
alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/
alex@alex-pc:~/projects/bash/spbashcw$ ~/.junk.sh file1
bash: /home/alex/.junk.sh: No such file or directory
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh file1
Student: Alex McBride (S1715224)
Junk: 1 file(s) moved to junk directory!
Warning: junk directory size greater than 1KB (8KB)
alex@alex-pc:~/projects/bash/spbashcw$ ls
file2  junk-manual.1    junk.sh          watch.sh
file3  junk-manual.txt  Test Cases.docx
alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/
file1
alex@alex-pc:~/projects/bash/spbashcw$ ▮
```
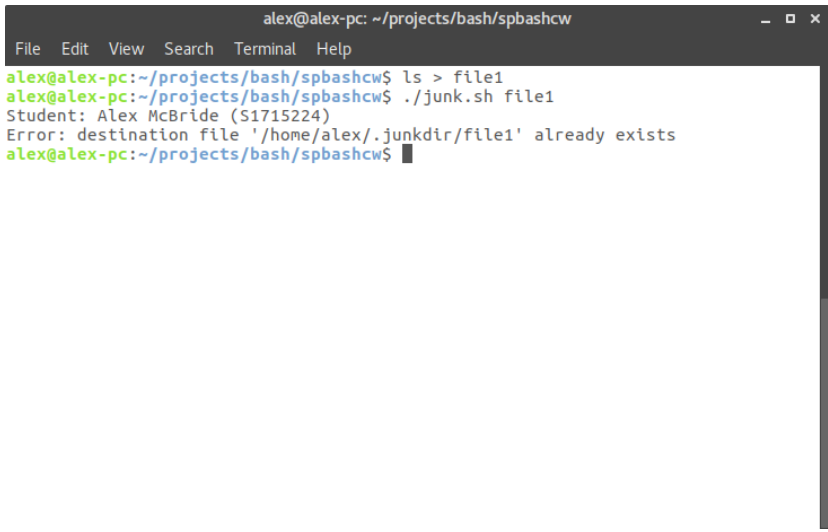
Test	005
Description	Test that junk script displays appropriate warning when junk directory goes over 1k in size
Input	./junk.sh file2
Expected	Message displayed: "Warning: junk directory size greater than 1KB (12KB)" *Note: size may vary depending on files used*
Actual	As expected
Screen	

```
alex@alex-pc: ~/projects/bash/spbashcw                    _ □ ×
File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh file2
Student: Alex McBride (S1715224)
Junk: 1 file(s) moved to junk directory!
Warning: junk directory size greater than 1KB (12KB)
alex@alex-pc:~/projects/bash/spbashcw$
```

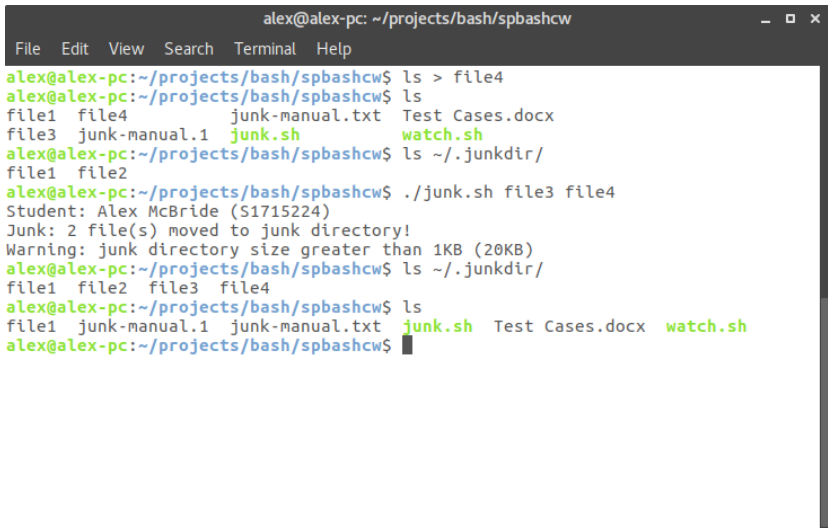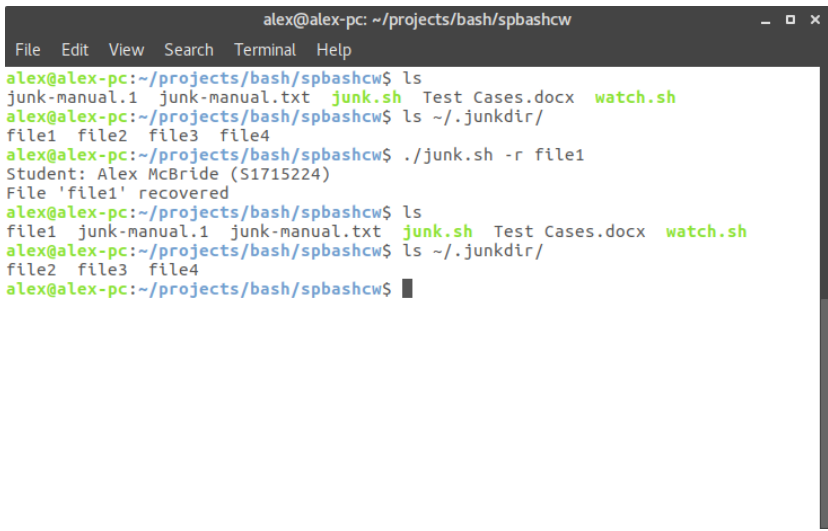| Test	006
Description	Test that junk script with missing file displays appropriate value
Input	./junk.sh file5
Expected	Message displayed: "Error: source file 'file5' does not exist"
Actual	As expected
Screen	 alex@alex-pc: ~/projects/bash/spbashcw File Edit View Search Terminal Help alex@alex-pc:~/projects/bash/spbashcw$ ls file3 junk-manual.1 junk-manual.txt junk.sh Test Cases.docx watch.sh alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh file5 Student: Alex McBride (S1715224) Error: source file 'file5' does not exist alex@alex-pc:~/projects/bash/spbashcw$

Test	007
Description	Test that junk script with directory displays appropriate message
Input	• mkdir temp_dir • ./junk.sh temp_dir • rm -r temp_dir
Expected	Message displayed: "Error: 'temp_dir' is a directory"
Actual	As expected
Screen	

```
                    alex@alex-pc: ~/projects/bash/spbashcw          _  □  ×
 File  Edit  View  Search  Terminal  Help
 alex@alex-pc:~/projects/bash/spbashcw$ mkdir temp_dir
 alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh temp_dir/
 Student: Alex McBride (S1715224)
 Error: 'temp_dir/' is a directory
 alex@alex-pc:~/projects/bash/spbashcw$ rm -r temp_dir/
 alex@alex-pc:~/projects/bash/spbashcw$ █
```
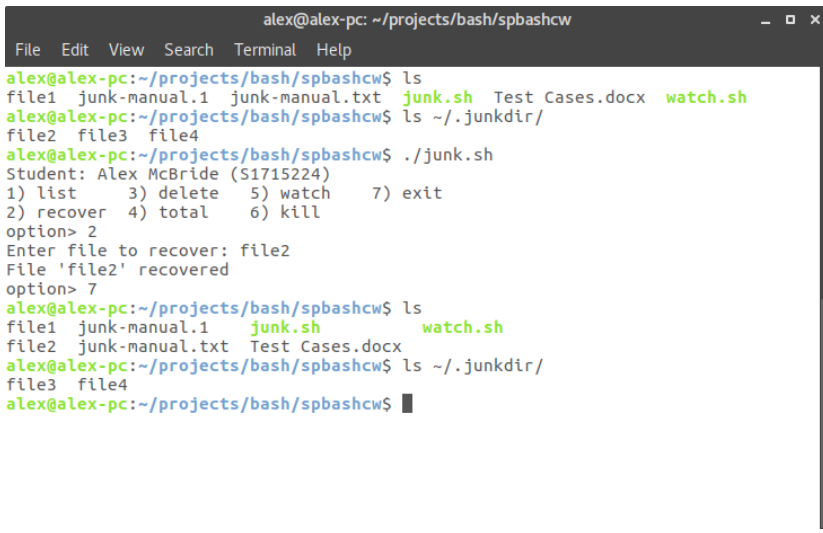
Test	008
Description	Test that junk script with file that cannot be read displays appropriate message
Input	- chmod 000 file3 ./junk.sh file3 - chmod 644 file3
Expected	Message displayed: "Error: source file 'file3' is not readable"
Actual	As expected
Screen	

```
                    alex@alex-pc: ~/projects/bash/spbashcw          _  □  ×
 File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls
file3  junk-manual.1  junk-manual.txt  junk.sh  Test Cases.docx  watch.sh
alex@alex-pc:~/projects/bash/spbashcw$ chmod 000 file3
alex@alex-pc:~/projects/bash/spbashcw$ ls -l
total 48
---------- 1 alex alex    81 Oct 24 08:02 file3
-rw-rw-r-- 1 alex alex  1425 Oct 22 18:11 junk-manual.1
-rw-r--r-- 1 alex alex  1502 Oct 22 16:29 junk-manual.txt
-rwxr-xr-x 1 alex alex  5761 Oct 24 08:12 junk.sh
-rw-r--r-- 1 alex alex 21311 Oct 24 08:22 Test Cases.docx
-rwxr-xr-x 1 alex alex  1122 Oct 22 11:17 watch.sh
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh file3
Student: Alex McBride (S1715224)
Error: source file 'file3' is not readable
alex@alex-pc:~/projects/bash/spbashcw$ chmod 644 file3
alex@alex-pc:~/projects/bash/spbashcw$ █
```
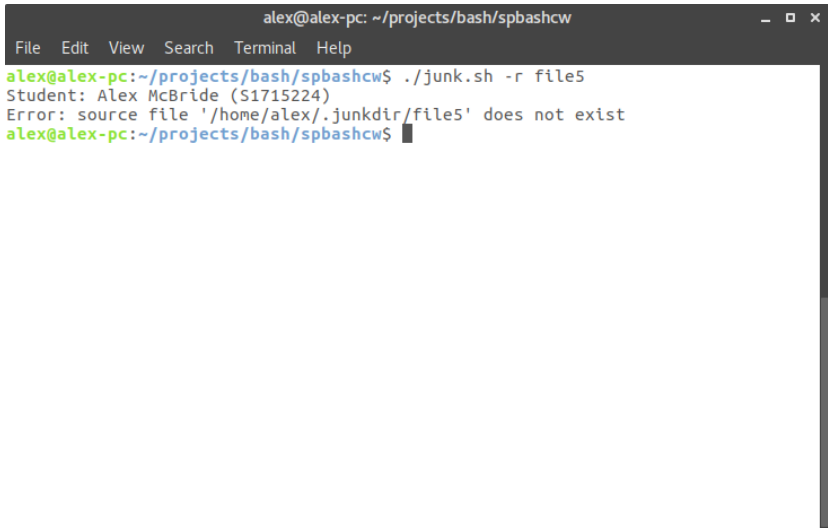
Test	009
Description	Test that junkdir not being writable displays appropriate error message
Input	• chmod 444 ~/.junkdir • ./junk.sh file3 • chmod 755 ~/.junkdir
Expected	Message displayed: "Error: destination directory '/home/<USER>/.junkdir' not writable"
Actual	As expected
Screen	

alex@alex-pc: ~/projects/bash/spbashcw

File   Edit   View   Search   Terminal   Help

```
alex@alex-pc:~/projects/bash/spbashcw$ chmod 444 ~/.junkdir/
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh file3
Student: Alex McBride (S1715224)
Error: destination directory '/home/alex/.junkdir' not writable
alex@alex-pc:~/projects/bash/spbashcw$ chmod 755 ~/.junkdir/
alex@alex-pc:~/projects/bash/spbashcw$
```
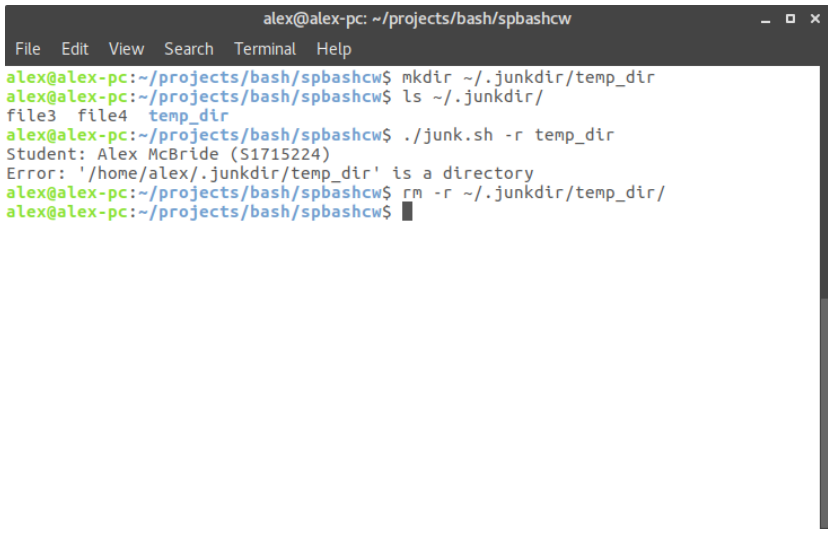
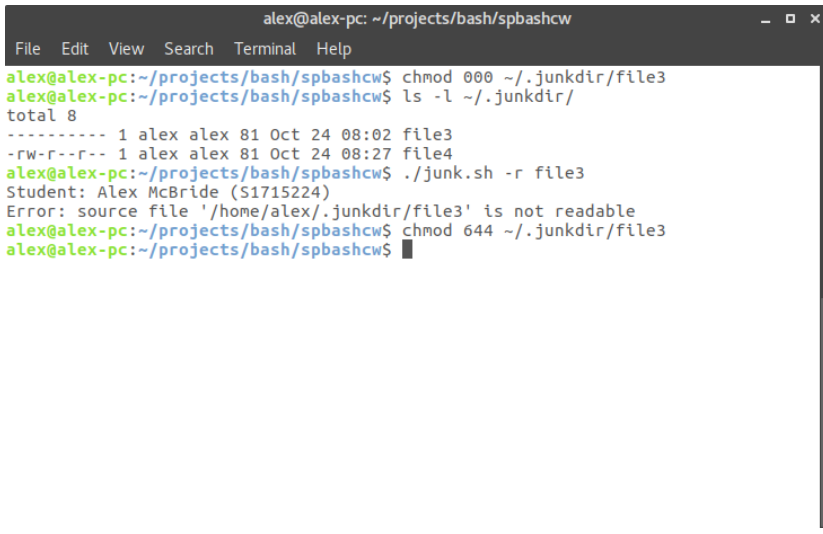| Test	010
Description	Test that file already existing in junk directory displays appropriate error message
Input	• ls > file1 • ./junk.sh file1
Expected	Message displayed: "Error: destination file '/home/<USER>/.junkdir/file1' already exists"
Actual	As expected
Screen	

```
                    alex@alex-pc: ~/projects/bash/spbashcw          _ □ ×
 File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls > file1
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh file1
Student: Alex McBride (S1715224)
Error: destination file '/home/alex/.junkdir/file1' already exists
alex@alex-pc:~/projects/bash/spbashcw$ █
```

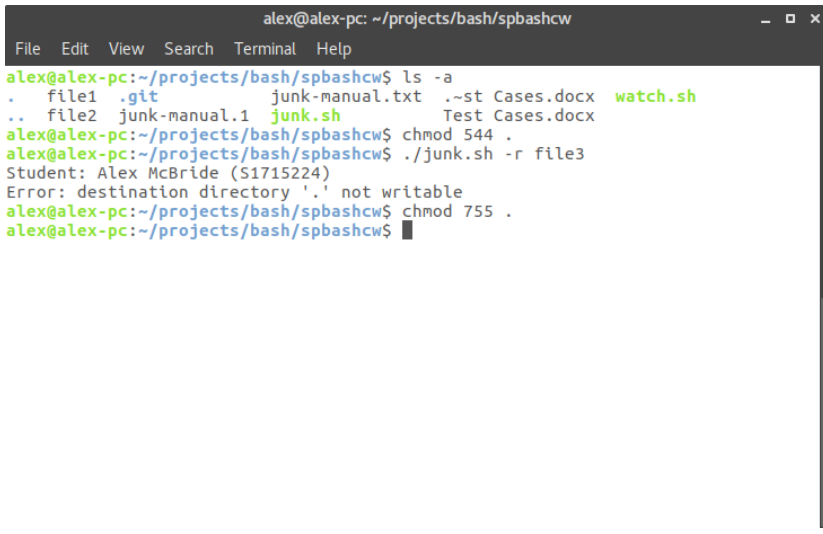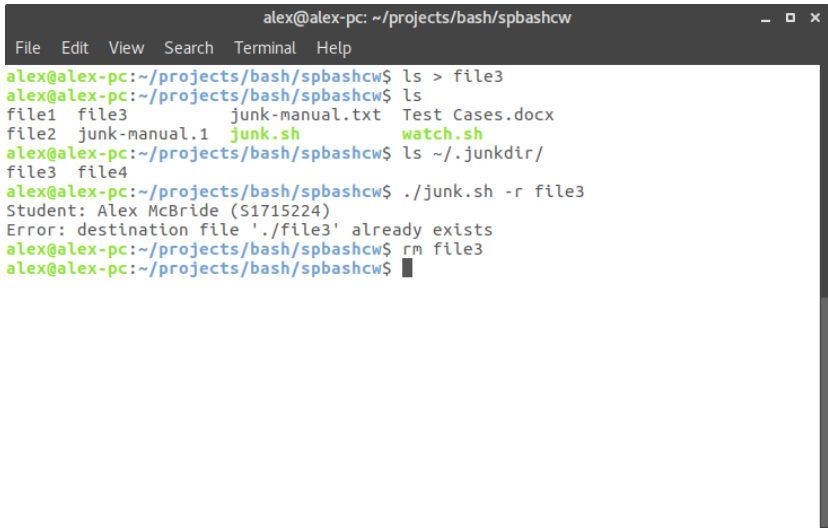| Test	011
Description	Test that junk script moves multiple files to junkdir
Input	• ls > file4 • ./junk.sh file3 file4 • ls ~/.junkdir
Expected	The following message is displayed: "Junk: 2 file(s) moved to junk directory!" The files 'file1' 'file2', 'file3', and 'file 4' are displayed in the .junkdir
Actual	As expected
Screen	 alex@alex-pc: ~/projects/bash/spbashcw File Edit View Search Terminal Help alex@alex-pc:~/projects/bash/spbashcw$ ls > file4 alex@alex-pc:~/projects/bash/spbashcw$ ls file1 file4 junk-manual.txt Test Cases.docx file3 junk-manual.1 junk.sh watch.sh alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/ file1 file2 alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh file3 file4 Student: Alex McBride (S1715224) Junk: 2 file(s) moved to junk directory! Warning: junk directory size greater than 1KB (20KB) alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/ file1 file2 file3 file4 alex@alex-pc:~/projects/bash/spbashcw$ ls file1 junk-manual.1 junk-manual.txt junk.sh Test Cases.docx watch.sh alex@alex-pc:~/projects/bash/spbashcw$

Test	012
Description	Test that recover switch moves file back from junkdir
Input	• ./junk.sh -r file1 • ls • ls ~/.junkdir
Expected	• The following message is displayed: "File 'file1' recovered" • The file 'file1' is displayed in current directory • The file 'file1' has disappeared from junkdir
Actual	As expected
Screen	

Test	013
Description	Test that recover with prompt moves file back from junkdir
Input	• ./junk.sh • Select 2 from menu • Type 'file2' and press enter • Select 7 to exit • ls • ls ~/.junkdir
Expected	• The following message is displayed: "File 'file2' recovered" • The file 'file2' is displayed in current directory • The file 'file2' has been removed from junkdir
Actual	As expected
Screen	

```
alex@alex-pc: ~/projects/bash/spbashcw                    _ □ ×
File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls
file1  junk-manual.1  junk-manual.txt  junk.sh  Test Cases.docx  watch.sh
alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/
file2  file3  file4
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh
Student: Alex McBride (S1715224)
1) list     3) delete   5) watch    7) exit
2) recover  4) total    6) kill
option> 2
Enter file to recover: file2
File 'file2' recovered
option> 7
alex@alex-pc:~/projects/bash/spbashcw$ ls
file1  junk-manual.1   junk.sh          watch.sh
file2  junk-manual.txt  Test Cases.docx
alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/
file3  file4
alex@alex-pc:~/projects/bash/spbashcw$ █
```
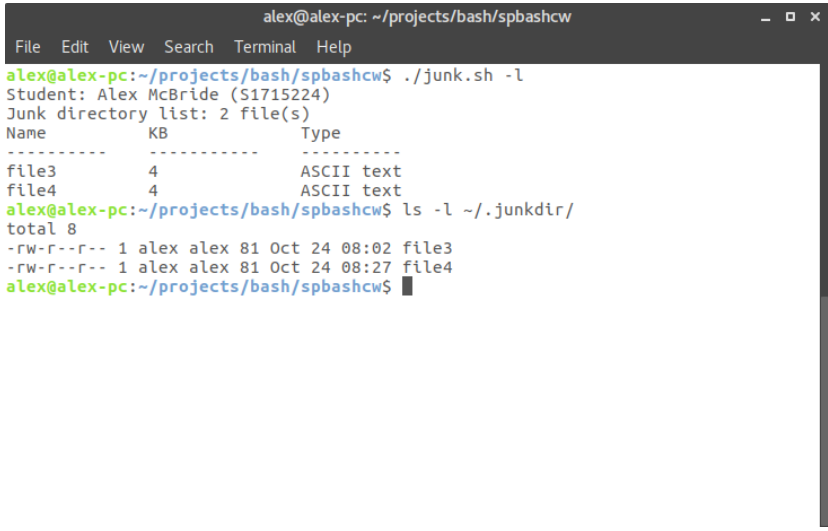
Test	014
Description	Test that recovering file when file does not exist displays appropriate error
Input	./junk.sh -r file5
Expected	Message displayed: "Error: source file '/home/<USER>/.junkdir/file5' does not exist"
Actual	As expected
Screen	 alex@alex-pc: ~/projects/bash/spbashcw File Edit View Search Terminal Help alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -r file5 Student: Alex McBride (S1715224) Error: source file '/home/alex/.junkdir/file5' does not exist alex@alex-pc:~/projects/bash/spbashcw$
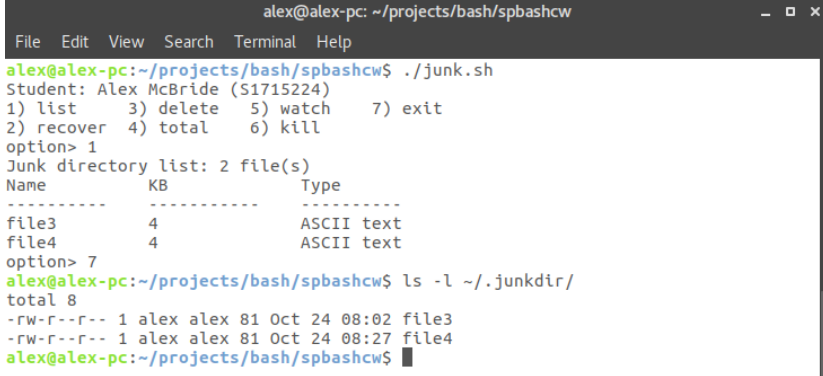
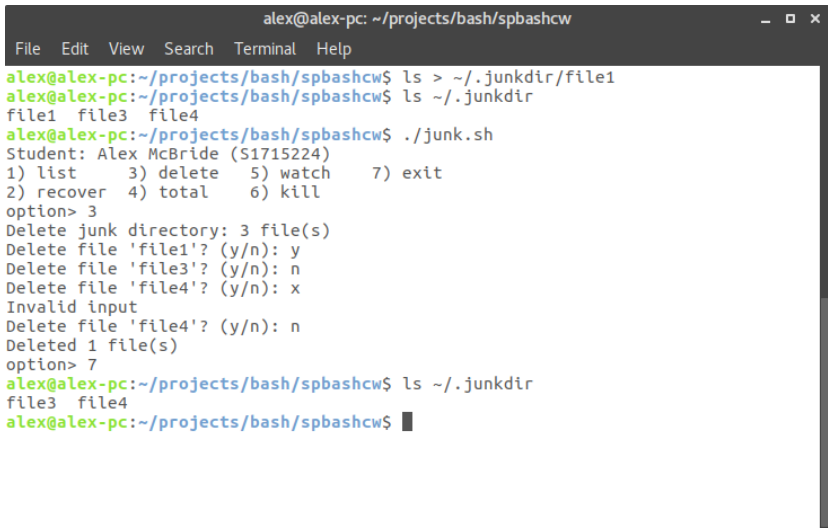| Test	015
Description	Test that recover with directory displays appropriate message
Input	- mkdir ~/.junk_dir/temp_dir ./junk.sh -r temp_dir - rm -r ~/.junk_dir/temp_dir
Expected	Message displayed: "Error: '/home/<USER>/.junkdir/temp_dir' is a directory"
Actual	As expected
Screen	

```
                    alex@alex-pc: ~/projects/bash/spbashcw              _  □ ×
 File  Edit  View  Search  Terminal  Help
 alex@alex-pc:~/projects/bash/spbashcw$ mkdir ~/.junkdir/temp_dir
 alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/
 file3  file4  temp_dir
 alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -r temp_dir
 Student: Alex McBride (S1715224)
 Error: '/home/alex/.junkdir/temp_dir' is a directory
 alex@alex-pc:~/projects/bash/spbashcw$ rm -r ~/.junkdir/temp_dir/
 alex@alex-pc:~/projects/bash/spbashcw$ █
```

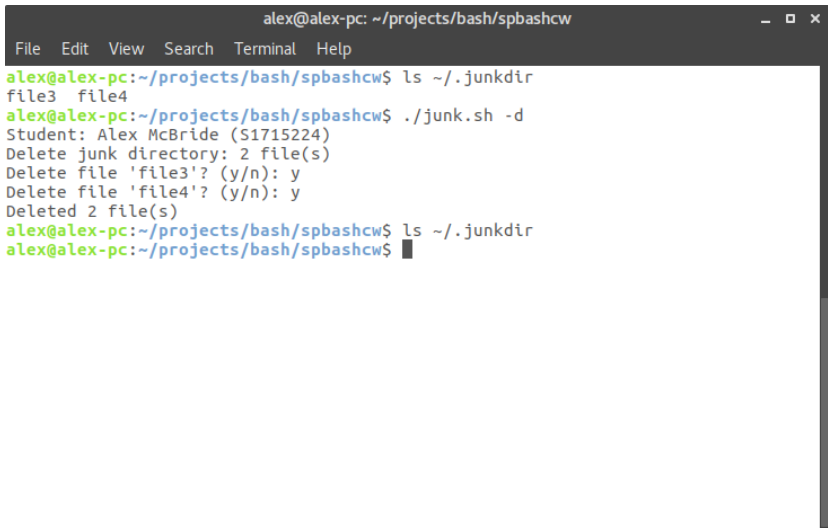| Test	016
Description	Test that recover with file that cannot be read displays appropriate message
Input	• chmod 000 ~/.junkdir/file3 • ./junk.sh -r file3 • chmod 644 ~/.junkdir/file3
Expected	Message displayed: "Error: source file '/home/<USER>/.junkdir/file3' is not readable"
Actual	As expected
Screen	 alex@alex-pc: ~/projects/bash/spbashcw File Edit View Search Terminal Help alex@alex-pc:~/projects/bash/spbashcw$ chmod 000 ~/.junkdir/file3 alex@alex-pc:~/projects/bash/spbashcw$ ls -l ~/.junkdir/ total 8 ---------- 1 alex alex 81 Oct 24 08:02 file3 -rw-r--r-- 1 alex alex 81 Oct 24 08:27 file4 alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -r file3 Student: Alex McBride (S1715224) Error: source file '/home/alex/.junkdir/file3' is not readable alex@alex-pc:~/projects/bash/spbashcw$ chmod 644 ~/.junkdir/file3 alex@alex-pc:~/projects/bash/spbashcw$ █

Test	017
Description	Test that recover when destination directory not writable displays appropriate error message
Input	- chmod 444 . ./junk.sh -r file3 - chmod 755 .
Expected	Message displayed: "Error: destination directory '.' not writable"
Actual	As expected
Screen	

```
alex@alex-pc: ~/projects/bash/spbashcw                    _ □ ×
File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls -a
.    file1  .git          junk-manual.txt  .~st Cases.docx   watch.sh
..   file2  junk-manual.1  junk.sh          Test Cases.docx
alex@alex-pc:~/projects/bash/spbashcw$ chmod 544 .
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -r file3
Student: Alex McBride (S1715224)
Error: destination directory '.' not writable
alex@alex-pc:~/projects/bash/spbashcw$ chmod 755 .
alex@alex-pc:~/projects/bash/spbashcw$ █
```
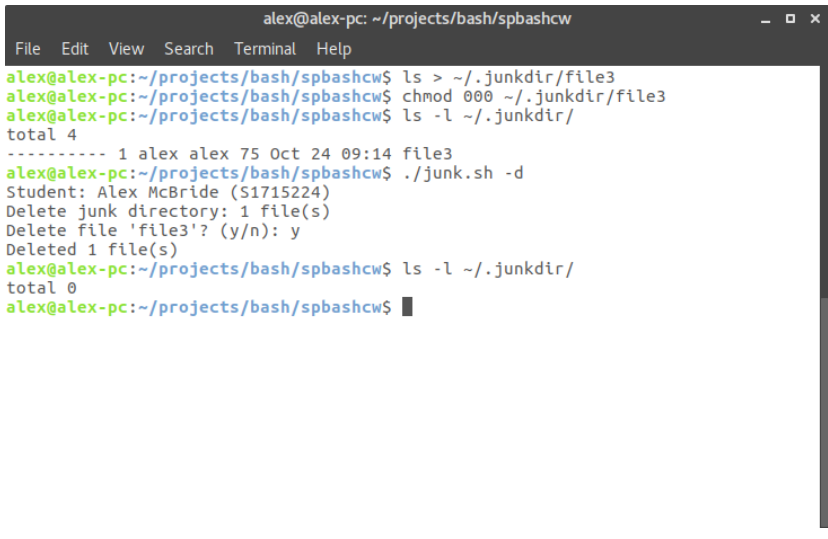
Test	018
Description	Test that recover when file already exists displays appropriate error
Input	• ls > ./junkdir/file3 • ./junk.sh -r file3
Expected	Message displayed: "Error: destination file './file3' already exists"
Actual	As expected
Screen	

Screen content:

```
alex@alex-pc: ~/projects/bash/spbashcw                    _  □  ×
File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls > file3
alex@alex-pc:~/projects/bash/spbashcw$ ls
file1  file3           junk-manual.txt  Test Cases.docx
file2  junk-manual.1  junk.sh          watch.sh
alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir/
file3  file4
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -r file3
Student: Alex McBride (S1715224)
Error: destination file './file3' already exists
alex@alex-pc:~/projects/bash/spbashcw$ rm file3
alex@alex-pc:~/projects/bash/spbashcw$ █
```
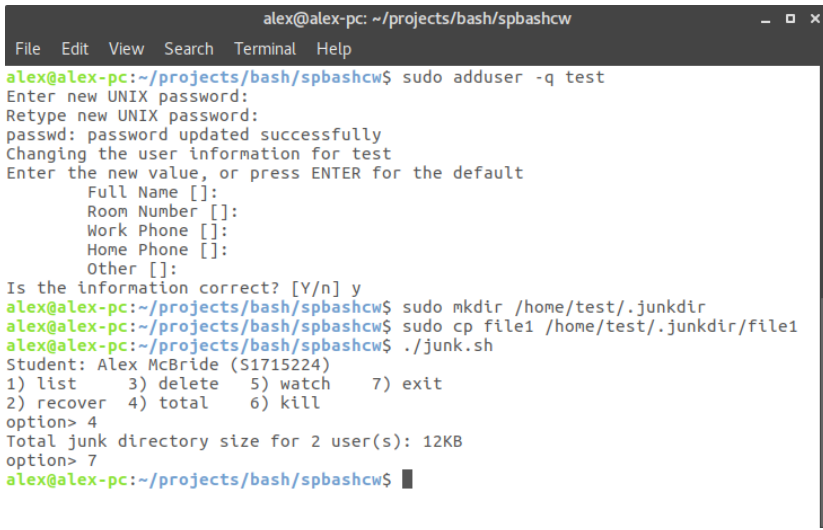
Test	019
Description	Test that list switch (-l) lists contents of junkdir
Input	• ./junk.sh -l • ls -l ~/.junkdir

Expected	The following output is displayed:
	
	`Junk directory list: 2 file(s)`
	`Name          KB          Type`
	`----------    -----------  ----------`
	`file3         4            ASCII text`
	`file4         4            ASCII text`
	
	That matches the output of ls:
	
	`total 8`
	`-rw-r--r-- 1 alex alex 81 Oct 24 08:02 file3`
	`-rw-r--r-- 1 alex alex 81 Oct 24 08:27 file4`
	
	Note: the bytes in files may vary depending on the files used

Actual	As expected
Screen	

Test	020
Description	Test that list menu option lists contents of junkdir
Input	• ./junk.sh • Select 1 from menu and press enter • Select 7 to exit • ls -l ~/.junkdir

Expected	The following output is displayed:
	
	`Junk directory list: 2 file(s)`
	`Name           KB          Type`
	`----------   -----------  ----------`
	`file3          4           ASCII text`
	`file4          4           ASCII text`
	
	That matches the output of:
	
	`total 8`
	`-rw-r--r-- 1 alex alex 81 Oct 24 08:02 file3`
	`-rw-r--r-- 1 alex alex 81 Oct 24 08:27 file4`
	
	Note: the bytes in files may vary depending on the files used

Actual	As expected
Screen	

Terminal window titled "alex@alex-pc: ~/projects/bash/spbashcw"

```
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh
Student: Alex McBride (S1715224)
1) list      3) delete   5) watch    7) exit
2) recover   4) total    6) kill
option> 1
Junk directory list: 2 file(s)
Name           KB          Type
----------   -----------  ----------
file3          4           ASCII text
file4          4           ASCII text
option> 7
alex@alex-pc:~/projects/bash/spbashcw$ ls -l ~/.junkdir/
total 8
-rw-r--r-- 1 alex alex 81 Oct 24 08:02 file3
-rw-r--r-- 1 alex alex 81 Oct 24 08:27 file4
alex@alex-pc:~/projects/bash/spbashcw$ 
```
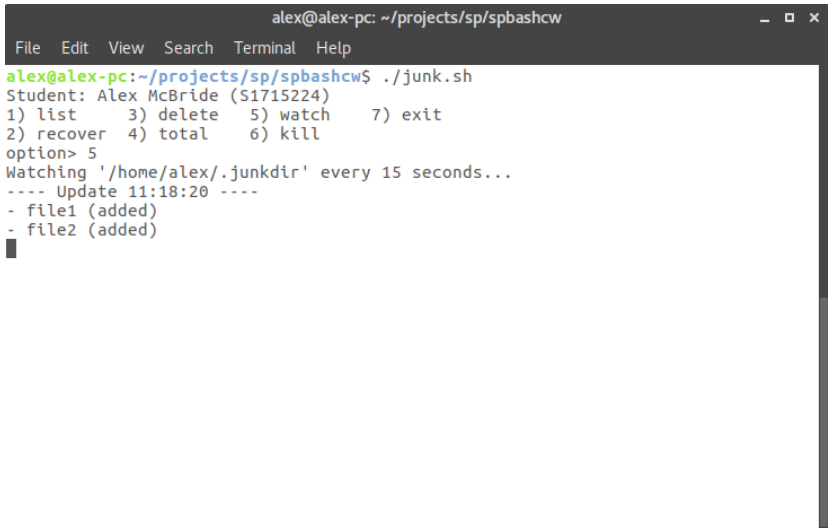
Test	021
Description	Test that delete option interactively deletes files
Input	- Create a file1 if it doesn't exist ls > ~/.junkdir/file1 ./junk.sh - Select option 3 and press enter - Enter 'y' when asked to delete file1 - Enter 'n' when asked to delete file3 - Enter 'x' when asked to delete file4 - Enter 'n' when asked to delete file3 again - Enter 7 to exit - ls ~/.junkdir
Expected	- The file 'file1' should be removed from junkdir - The file 'file3' should still be present in junkdir - The message 'Invalid input' should be displayed for 'x' - The file 'file4' should remain in junkdir - The message "Deleted 1 file(s)" should be displayed before exit of script
Actual	As expected
Screen	

```
alex@alex-pc: ~/projects/bash/spbashcw                    _ □ ×
 File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls > ~/.junkdir/file1
alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir
file1  file3  file4
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh
Student: Alex McBride (S1715224)
1) list     3) delete   5) watch     7) exit
2) recover  4) total    6) kill
option> 3
Delete junk directory: 3 file(s)
Delete file 'file1'? (y/n): y
Delete file 'file3'? (y/n): n
Delete file 'file4'? (y/n): x
Invalid input
Delete file 'file4'? (y/n): n
Deleted 1 file(s)
option> 7
alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir
file3  file4
alex@alex-pc:~/projects/bash/spbashcw$ ▮
```
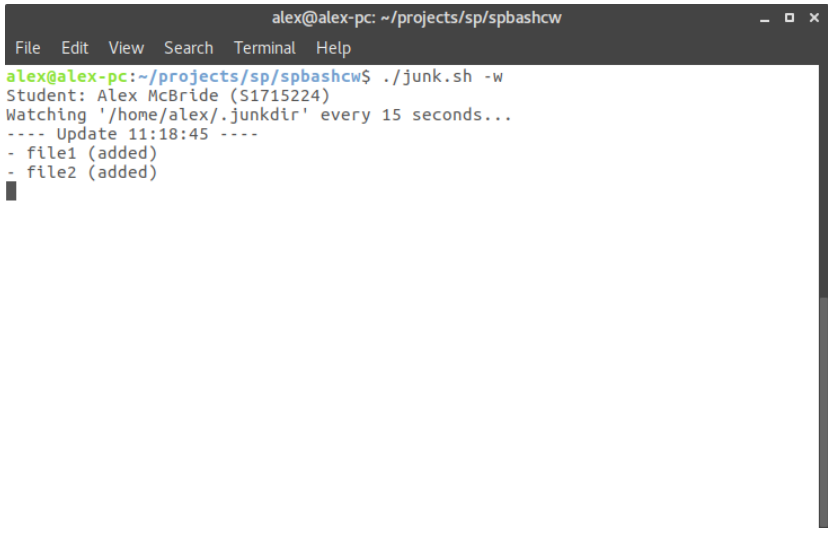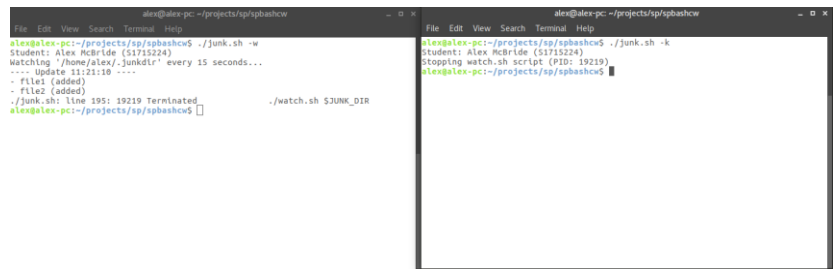
Test	022
Description	Test that delete switch (-d) interactively deletes files
Input	• <mark>./junk.sh -d</mark> • Enter 'y' when asked to delete file2 • Enter 'y' when asked to delete file3 • <mark>ls ~/.junkdir</mark>
Expected	• The message "Deleted 2 file(s)" should be displayed • The file 'file2' should be removed from junkdir • The file 'file3' should be removed from junkdir
Actual	As expected
Screen	

```
                    alex@alex-pc: ~/projects/bash/spbashcw          _ □ ×
  File  Edit  View  Search  Terminal  Help
  alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir
  file3  file4
  alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -d
  Student: Alex McBride (S1715224)
  Delete junk directory: 2 file(s)
  Delete file 'file3'? (y/n): y
  Delete file 'file4'? (y/n): y
  Deleted 2 file(s)
  alex@alex-pc:~/projects/bash/spbashcw$ ls ~/.junkdir
  alex@alex-pc:~/projects/bash/spbashcw$ █
```
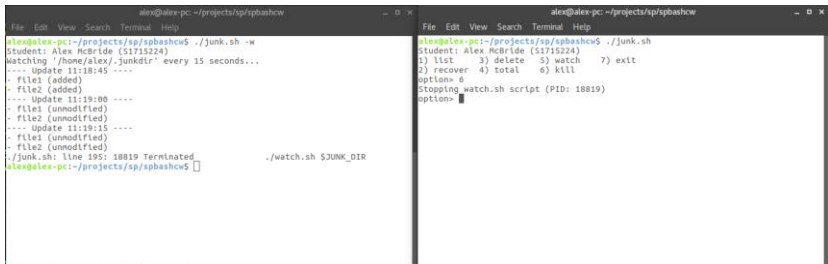
Test	023
Description	Test that delete with write-protected file still deletes
Input	- ls > ~/.junkdir/file3 if it does not exist - chmod 000 ~/.junkdir/file3 ./junk.sh -d - Press 'y' when asked to delete 'file3' - ls ~/.junkdir
Expected	- The message "Deleted 1 file(s)" should be displayed - The file 'file3' should be removed from junkdir
Actual	As expected
Screen	

Screen terminal content:

```
alex@alex-pc: ~/projects/bash/spbashcw

File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ ls > ~/.junkdir/file3
alex@alex-pc:~/projects/bash/spbashcw$ chmod 000 ~/.junkdir/file3
alex@alex-pc:~/projects/bash/spbashcw$ ls -l ~/.junkdir/
total 4
--------- 1 alex alex 75 Oct 24 09:14 file3
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -d
Student: Alex McBride (S1715224)
Delete junk directory: 1 file(s)
Delete file 'file3'? (y/n): y
Deleted 1 file(s)
alex@alex-pc:~/projects/bash/spbashcw$ ls -l ~/.junkdir/
total 0
alex@alex-pc:~/projects/bash/spbashcw$ 
```

Test	024
Description	Test that total menu option shows list of total files for all users, for this test we will add a user called test, create their junk directory, and add a file
Input	• sudo adduser -q test • sudo mkdir /home/test/.junkdir • sudo cp file1 /home/test/.junkdir • ./junk.sh • Enter option 4 • Enter 7 to exit
Expected	The message "Total junk directory size for 2 user(s): 12KB" *Note: the actual byte size will vary based on files in user directories and their sizes*
Actual	As expected
Screen	

```
alex@alex-pc: ~/projects/bash/spbashcw                          _ □ ×
File  Edit  View  Search  Terminal  Help
alex@alex-pc:~/projects/bash/spbashcw$ sudo adduser -q test
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
Changing the user information for test
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
alex@alex-pc:~/projects/bash/spbashcw$ sudo mkdir /home/test/.junkdir
alex@alex-pc:~/projects/bash/spbashcw$ sudo cp file1 /home/test/.junkdir/file1
alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh
Student: Alex McBride (S1715224)
1) list    3) delete   5) watch    7) exit
2) recover 4) total    6) kill
option> 4
Total junk directory size for 2 user(s): 12KB
option> 7
alex@alex-pc:~/projects/bash/spbashcw$
```
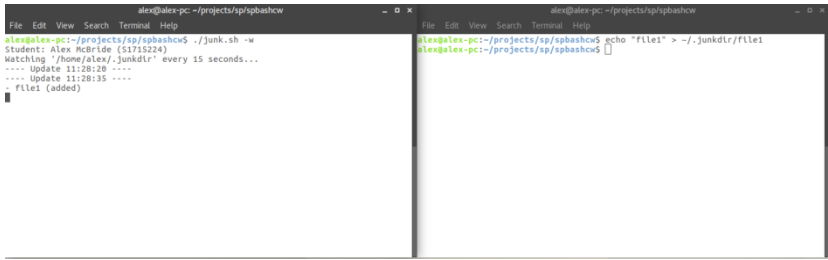
Test	025
Description	Test that total switch (-t) shows list of total files for all users
Input	• ./junk.sh -t • sudo deluser test • sudo rm -r /home/test
Expected	The message "Total junk directory size for 2 user(s): 12KB" *Note: the actual byte size will vary based on files in user directories and their sizes*
Actual	As expected
Screen	alex@alex-pc: ~/projects/bash/spbashcw File Edit View Search Terminal Help alex@alex-pc:~/projects/bash/spbashcw$ ./junk.sh -t Student: Alex McBride (S1715224) Total junk directory size for 2 user(s): 12KB alex@alex-pc:~/projects/bash/spbashcw$ sudo deluser test Removing user `test' ... Warning: group `test' has no more members. Done. alex@alex-pc:~/projects/bash/spbashcw$ sudo rm -r /home/test alex@alex-pc:~/projects/bash/spbashcw$
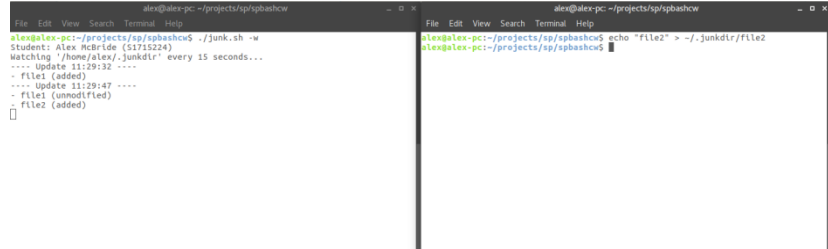
Test	026
Description	Test that watch script is started from menu option
Input	• ./junk.sh • Type 5 and press enter
Expected	The watch command for the junkdir is displayed. *Note: press ctrl+c to exit*
Actual	As expected
Screen	

Test	027
Description	Test that watch script is started from switch (-w)
Input	./junk.sh -w
Expected	The watch command for the junkdir is displayed. *Note: press ctrl+c to exit*
Actual	As expected
Screen	alex@alex-pc: ~/projects/sp/spbashcw File Edit View Search Terminal Help alex@alex-pc:~/projects/sp/spbashcw$ ./junk.sh -w Student: Alex McBride (S1715224) Watching '/home/alex/.junkdir' every 15 seconds... ---- Update 11:18:45 ---- - file1 (added) - file2 (added)
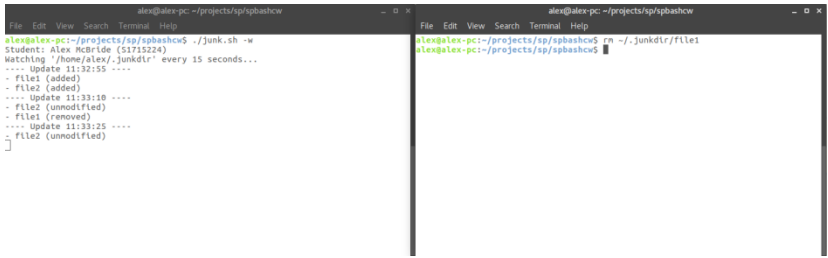
Test	028
Description	Test that watch script can be killed with the kill menu option
Input	• Run ./junk.sh -w in first terminal • In second terminal run: ./junk.sh • Type 6 and press enter • Type 7 and press enter to exit
Expected	• The watch command running in the first terminal is stopped and you are returned to the prompt. • In the second terminal the message is displayed: "Stopping watch.sh script (PID: <PID>)"
Actual	As expected
Screen	
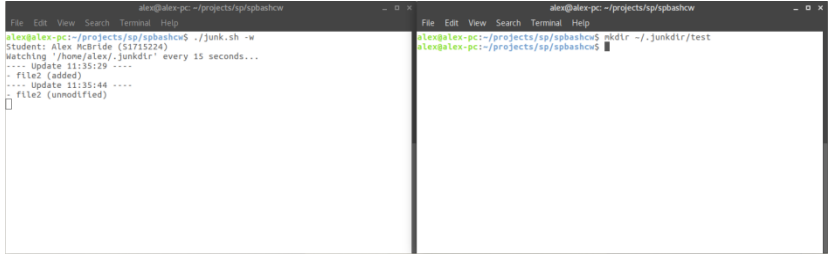
Test	029
Description	Test that watch script can be killed with a switch (-k)
Input	- Run ./junk.sh -w in first terminal - In second terminal run: ./junk.sh -k
Expected	- The watch command running in the first terminal is stopped and you are returned to the prompt. - In the second terminal the message is displayed: "Stopping watch.sh script (PID: <PID>)"
Actual	As expected
Screen	

Test	030
Description	Test that watch script updates correctly when file added. For this test start two terminal windows and run ./junk.sh -w in the first one. Make sure junkdir is empty (rm * ~/.junkdir).
Input	echo "file1" > ~/.junkdir/file1
Expected	The watch script updates the message "- file1 (added)" is displayed
Actual	As expected
Screen	

Test	031
Description	Test that watch script updates correctly when second file added.
Input	echo "file2" > ~/.junkdir/file2
Expected	The watch script updates the message "- file2 (added)" is displayed
Actual	As expected
Screen	

Test	032
Description	Test that watch script updates correctly when files are modified.
Input	echo "changed" > ~/.junkdir/file1
Expected	The watch script updates with the message: - file1 (modified) - file2 (unmodified)
Actual	As expected
Screen	

Test	033
Description	Test that watch script updates correctly when files are modified.
Input	<mark>echo "changed" > ~/.junkdir/file1</mark>
Expected	The watch script updates with the message: - file1 (modified) - file2 (unmodified)
Actual	As expected
Screen	

Test	034
Description	Test that watch script ignored directories
Input	mkdir > ~/.junkdir/test
Expected	The watch script updates with the message: - file2 (unmodified)
Actual	As expected
Screen	