

Assessment-2

Assignment: Bash Shell Basics

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Task 1: File and Directory Manipulation

1.Create a directory called “my_directory”.

```
mkdir my_dir
```

2.Navigate into the “my_directory”.

```
cd my_dir
```

3. Create an empty file called “my_file.txt”.

```
touch my_file.txt
```

4.List all the files and directories in the current directory.

```
ls
```

5.Rename "my_file.txt" to “new_file.txt”.

```
mv my_file.txt new_file.txt
```

6.Display the content of "new_file.txt" using a pager tool of your choice.

```
cat new_file.txt
```

7.Append the text "Hello, World!" to “new_file.txt”.

```
echo "Hello, World!" >> new_file.txt
```

Create a new directory called "backup" within “my_directory”.

```
mkdir backup
```

Move "new_file.txt" to the "backup" directory.

```
mv new_file.txt backup/
```

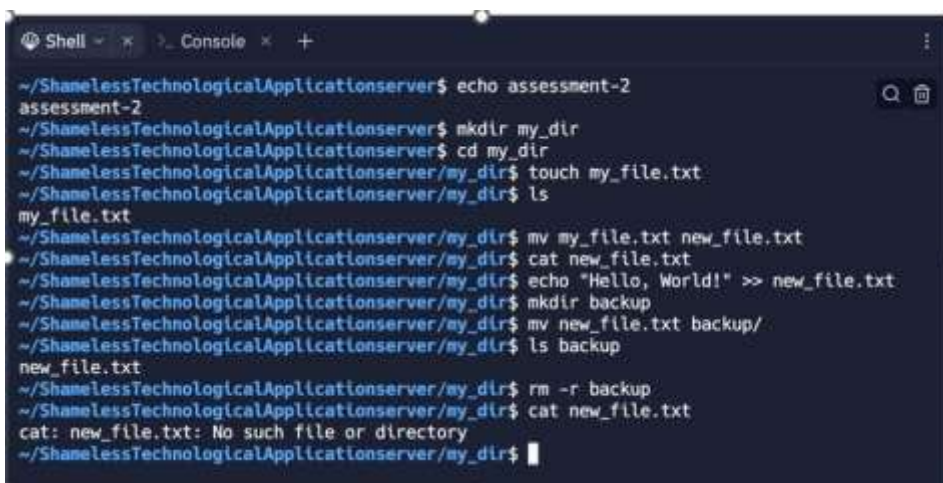
.Verify that "new_file.txt" is now located in the "backup" directory.

```
ls backup
```

Delete the "backup" directory and all its contents.

```
rm -r backup
```

OUTPUT:

A terminal window titled 'Shell' with tabs for 'Console' and '+'. The terminal shows a series of commands and their outputs in a dark blue theme. The commands include creating a directory 'my_dir', creating a file 'my_file.txt', moving it to 'new_file.txt', creating a 'backup' directory, moving 'new_file.txt' to 'backup/', and finally deleting the 'backup' directory with 'rm -r backup'. The final output shows an error message 'cat: new_file.txt: No such file or directory' because the file has been moved.

```
~/ShamelessTechnologicalApplicationserver$ echo assessment-2
assessment-2
~/ShamelessTechnologicalApplicationserver$ mkdir my_dir
~/ShamelessTechnologicalApplicationserver$ cd my_dir
~/ShamelessTechnologicalApplicationserver/my_dir$ touch my_file.txt
~/ShamelessTechnologicalApplicationserver/my_dir$ ls
my_file.txt
~/ShamelessTechnologicalApplicationserver/my_dir$ mv my_file.txt new_file.txt
~/ShamelessTechnologicalApplicationserver/my_dir$ cat new_file.txt
~/ShamelessTechnologicalApplicationserver/my_dir$ echo "Hello, World!" >> new_file.txt
~/ShamelessTechnologicalApplicationserver/my_dir$ mkdir backup
~/ShamelessTechnologicalApplicationserver/my_dir$ mv new_file.txt backup/
~/ShamelessTechnologicalApplicationserver/my_dir$ ls backup
new_file.txt
~/ShamelessTechnologicalApplicationserver/my_dir$ rm -r backup
~/ShamelessTechnologicalApplicationserver/my_dir$ cat new_file.txt
cat: new_file.txt: No such file or directory
~/ShamelessTechnologicalApplicationserver/my_dir$
```

Task 2: Permissions and Scripting

Create a new file called "my_script.sh".

Edit "my_script.sh" using a text editor of your choice and add the following lines:

```
bash #!/bin/bash echo "Welcome to my script!" echo  
"Today's date is $(date)." Save and exit the  
file.
```

Make "my_script.sh" executable.

Run "my_script.sh" and verify that the output matches the expected result.

Code:

```
touch my_script.sh nano
```

•sult.

Code:

```
touch my_script.sh nano
```

```
my s cript.h
```

Save and exit the file in nano. In nano, you can press "Ctrl + o" to save the file, then Enter to confirm, and "Ctrl + x" to exit the editor.

```
#!/bin/bash          echo "Welcome to  
my script!" echo "Today's date is  
$(date)." chmod +x my_script.sh # This  
command gives          the file  
executable permissions.
```

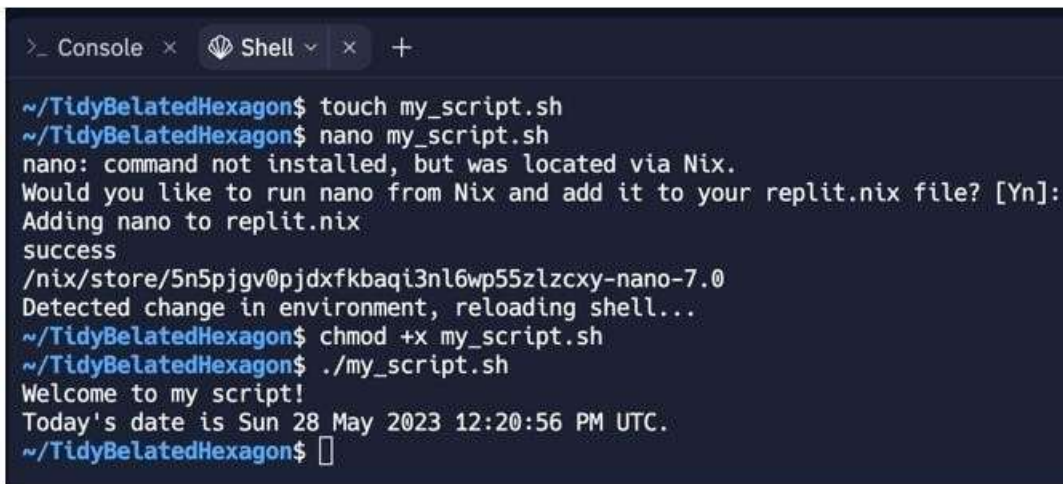
./my_script.sh **Output:**

Save and exit the file in nano. In nano, you can press “Ctrl + o” to save the file, then Enter to confirm, and “Ctrl + x” to exit the editor.

```
#!/bin/bash          echo "Welcome to my script!" echo  
"Today's date is n          $(date)." chmod +x my_script.sh  
# This command gives the  
  
File executable permissions.
```

./my_script.sh

Output:



```
>_ Console x Shell x +  
~/TidyBelatedHexagon$ touch my_script.sh  
~/TidyBelatedHexagon$ nano my_script.sh  
nano: command not installed, but was located via Nix.  
Would you like to run nano from Nix and add it to your replit.nix file? [Yn]:  
Adding nano to replit.nix  
success  
/nix/store/5n5pjpgv0pjdxfkbaqi3nl6wp55zlzcxy-nano-7.0  
Detected change in environment, reloading shell...  
~/TidyBelatedHexagon$ chmod +x my_script.sh  
~/TidyBelatedHexagon$ ./my_script.sh  
Welcome to my script!  
Today's date is Sun 28 May 2023 12:20:56 PM UTC.  
~/TidyBelatedHexagon$
```

```
GNU nano 2.9.0 my_script.sh
#!/bin/bash
echo "Welcome to my script!"
echo "Today's date is $(date)."
```

GNU nano 2.9.0 my_script.sh

Modif

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^_ Go To Line

Task 3: Command Execution and Pipelines

List all the processes running on your system using the "ps" command.

Use the "grep" command to filter the processes list and display only the processes with "bash" in their name.

Use the "wc" command to count the number of lines in the filtered output.

