

Directory Management Shell Script

The main objective of this project is to implement a shell script that efficiently checks and manages directories and regular files based on user input. The script is designed to provide a seamless user experience, where users can input a directory name, and the script will intelligently determine the nature of the input (whether it is an existing directory or a regular file) using if, elif, and else functions.

The key functionalities of the project include:

1. *User Input:* The shell script prompts the user to enter the name of the directory they want to check or create.
2. *Input Validation:* The script ensures the validity of the input and differentiates between existing directories and regular files using conditional statements.
3. *Directory Existence Check:* If the input corresponds to an existing directory, the script displays the message "Directory exists. Don't create." This feature prevents accidental overwriting of existing directories.
4. *Regular File Check:* In case the input corresponds to a regular file, the script again displays the message "Directory exists. Don't create." This avoids any data loss due to incorrect operations.
5. *New Directory Creation:* If the input does not exist as either a directory or a regular file, the script proceeds to create a new directory with the given input name. This ensures the efficient organization of data for users.

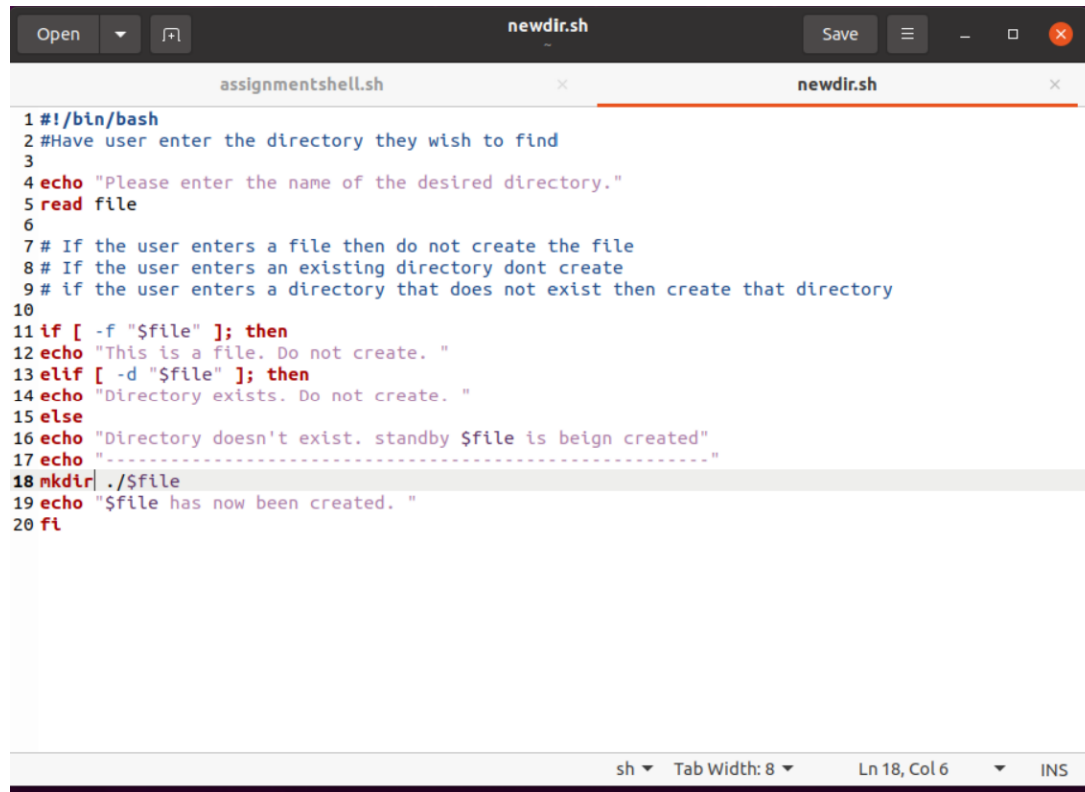
The implementation of the script utilizes fundamental shell scripting techniques, such as if, elif, and else functions, to achieve an intuitive and user-friendly interface. It empowers users to effortlessly manage their directories and files, reducing the risk of inadvertent errors during the process.

This project is particularly beneficial for individuals handling large volumes of data, as it simplifies directory management tasks and prevents data loss or disruption. The script's efficiency lies in its ability to handle various scenarios promptly, contributing to a more streamlined and organized file system.

In conclusion, the Directory Checker and Creator project demonstrates the application of shell scripting to efficiently manage directories and files based on user input. It empowers users with a robust and reliable tool to ensure data integrity and enhance overall file system organization. The script's user-friendly nature and accurate decision-making make it an invaluable asset for both novice and experienced users seeking a hassle-free approach to directory management.

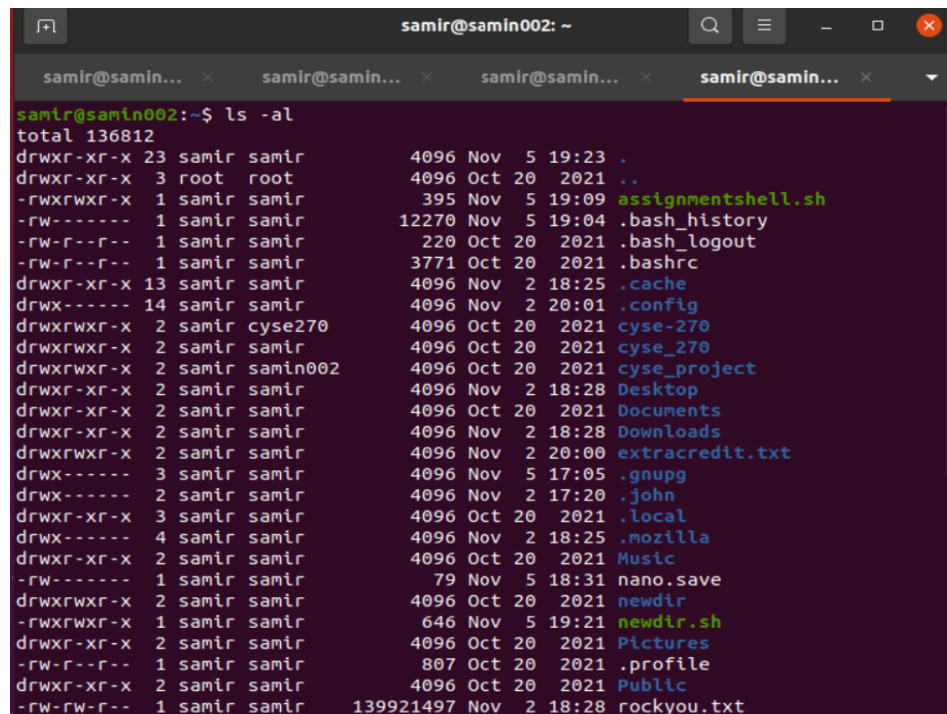
Directory Management Shell Script

Step One (Start Your Shell Script):



```
1#!/bin/bash
2#Have user enter the directory they wish to find
3
4echo "Please enter the name of the desired directory."
5read file
6
7# If the user enters a file then do not create the file
8# If the user enters an existing directory dont create
9# if the user enters a directory that does not exist then create that directory
10
11if [ -f "$file" ]; then
12echo "This is a file. Do not create. "
13elif [ -d "$file" ]; then
14echo "Directory exists. Do not create. "
15else
16echo "Directory doesn't exist. standby $file is beign created"
17echo "-----"
18mkdir ./ $file
19echo "$file has now been created. "
20fi
```

Step Two (Find The Directories That Are Currently Their):



```
samir@samin002:~$ ls -al
total 136812
drwxr-xr-x 23 samir samir      4096 Nov  5 19:23 .
drwxr-xr-x  3 root root        4096 Oct 20  2021 ..
-rwxrwxr-x  1 samir samir       395 Nov  5 19:09 assignmentshell.sh
-rw-----  1 samir samir    12270 Nov  5 19:04 .bash_history
-rw-r--r--  1 samir samir     220 Oct 20  2021 .bash_logout
-rw-r--r--  1 samir samir    3771 Oct 20  2021 .bashrc
drwxr-xr-x 13 samir samir     4096 Nov  2 18:25 .cache
drwx----- 14 samir samir     4096 Nov  2 20:01 .config
drwxrwxr-x  2 samir cyse270    4096 Oct 20  2021 cyse-270
drwxrwxr-x  2 samir samir     4096 Oct 20  2021 cyse_270
drwxrwxr-x  2 samir samin002   4096 Oct 20  2021 cyse_project
drwxr-xr-x  2 samir samir     4096 Nov  2 18:28 Desktop
drwxr-xr-x  2 samir samir     4096 Oct 20  2021 Documents
drwxr-xr-x  2 samir samir     4096 Nov  2 18:28 Downloads
drwxrwxr-x  2 samir samir     4096 Nov  2 20:00 extracredit.txt
drwx-----  3 samir samir     4096 Nov  5 17:05 .gnupg
drwx-----  2 samir samir     4096 Nov  2 17:20 .john
drwxr-xr-x  3 samir samir     4096 Oct 20  2021 .local
drwx-----  4 samir samir     4096 Nov  2 18:25 .mozilla
drwxr-xr-x  2 samir samir     4096 Oct 20  2021 Music
-rw-----  1 samir samir        79 Nov  5 18:31 nano.save
drwxrwxr-x  2 samir samir     4096 Oct 20  2021 newdir
-rwxrwxr-x  1 samir samir       646 Nov  5 19:21 newdir.sh
drwxr-xr-x  2 samir samir     4096 Oct 20  2021 Pictures
-rw-r--r--  1 samir samir       807 Oct 20  2021 .profile
drwxr-xr-x  2 samir samir     4096 Oct 20  2021 Public
-rw-rw-r--  1 samir samir 139921497 Nov  2 18:28 rockyou.txt
```

Directory Management Shell Script

Step Two Continued..

```
samir@samir... samir@samir... samir@samir... samir@samir...
drwx----- 2 samir samir      4096 Nov  2 17:20 .john
drwxr-xr-x  3 samir samir      4096 Oct 20 2021 .local
drwx----- 4 samir samir      4096 Nov  2 18:25 .mozilla
drwxr-xr-x  2 samir samir      4096 Oct 20 2021 Music
-rw-----  1 samir samir        79 Nov  5 18:31 nano.save
drwxrwxr-x  2 samir samir      4096 Oct 20 2021 newdir
-rwxrwxr-x  1 samir samir       646 Nov  5 19:21 newdir.sh
drwxr-xr-x  2 samir samir      4096 Oct 20 2021 Pictures
-rw-r--r--  1 samir samir       807 Oct 20 2021 .profile
drwxr-xr-x  2 samir samir      4096 Oct 20 2021 Public
-rw-rw-r--  1 samir samir    139921497 Nov  2 18:28 rockyou.txt
-rw-r--r--  1 root  root         0 Oct 25 2021 samin002.txt
-rw-rw-r--  1 samir samir       795 Nov  2 19:35 saminzay.hash
-rw-rw-r--  1 samir samir       789 Nov  2 19:17 Samiraminzay2002.hash
drwxrwxr-x  2 samir samir      4096 Nov  5 19:23 samirfile.txt
-rw-rw-r--  1 samir samir     1024 Nov 15 2021 .scr.sh.swp
-rwxrwxr--  1 samir samir       272 Nov  5 17:14 shell.script
-rw-rw-r--  1 samir samir       646 Nov  5 19:20 shellscrip2.sh
-rw-rw-r--  1 samir samir         6 Oct 20 2021 Sophia_homework
drwx----- 2 samir samir      4096 Oct 20 2021 .ssh
-rw-r--r--  1 samir samir         0 Oct 20 2021 .sudo_as_admin_successful
drwxr-xr-x  2 samir samir      4096 Oct 20 2021 Templates
-rw-r----- 1 samir samir         5 Nov  5 18:29 .vboxclient-clipboard.pid
-rw-r----- 1 samir samir         5 Nov  5 18:29 .vboxclient-display-svg-a-x11
.pid
-rw-r----- 1 samir samir         5 Nov  5 18:29 .vboxclient-draganddrop.pid
-rw-r----- 1 samir samir         5 Nov  5 18:29 .vboxclient-seamless.pid
drwxr-xr-x  2 samir samir      4096 Oct 20 2021 Videos
samir@samin002:~$
```

Step Three (Use The Terminal):

```
samir@samin002:~$ chmod a+x ./newdir.sh
samir@samin002:~$ samirfile.txt
samirfile.txt: command not found
samir@samin002:~$ chmod a+x ./newdir.sh
samir@samin002:~$ ./newdir.sh
Please enter the name of the desired directory.
samirfile.txt
Directory exists. Do not create.
samir@samin002:~$ ./newdir.sh
Please enter the name of the desired directory.
aminzayfile.txt
Directory doesn't exist. standby aminzayfile.txt is beign created
-----
aminzayfile.txt has now been created.
samir@samin002:~$
```

Step Four (Show That The Shell Script Can Create a New Directory):

```
aminzayfile.txt has now been created.
samir@samin002:~$ ls -al
total 136816
drwxr-xr-x 24 samir samir      4096 Nov  5 19:26 .
drwxr-xr-x  3 root  root      4096 Oct 20 2021 ..
drwxrwxr-x  2 samir samir      4096 Nov  5 19:26 aminzayfile.txt
-rwxr-xr-x  1 samir samir       205 Nov  5 19:26 aminzayfile.sh
```