

Shell Scripting Project

INTRODUCTION

This scripting project provides an opportunity to write a script that illustrates all of the scripting concepts learned in previous weeks. Your script will create a new user on the system.

REQUIREMENTS

To successfully complete this activity, you need to create a new file for your script. Be sure to assign the appropriate permission, allowing the script to be executed.

SCRIPT TASKS

Write a shell script to add a new user to the system. The script should prompt for the new username and ensure it is not already in use. Be sure your check for uniqueness actually works – bo, bob, and bobby should all be creatable, if they do not already exist on your system.

The script should also obtain the new user's full name and preferred shell. Be sure to display a dynamic list of valid shells prior to shell selection.

```
Enter the username to create: bob

Enter the user's full name: Bob Bobson

Available Shells
-----
/bin/sh
/bin/bash
/sbin/nologin
/usr/bin/sh
/usr/bin/bash
/usr/sbin/nologin
/bin/tcsh
/bin/csh

Enter the user's shell: /bin/tcsh

User was created successfully!

End Processing
```

Upon completion of the script, the new user's information should be visible in the `/etc/passwd` file.

```
$ tail -n 1 /etc/passwd
bob:x:1001:1001:Bob Bobson:/home/bob:/bin/tcsh
```

SCRIPT OPERATION PSEUDOCODE

- 1) Prompt the user for the new username to create
 - a) Verify the username is not already in use
- 2) Prompt for the new user's full name
- 3) Display list of available shells on the system (do not hardcode list)
- 4) Prompt for the new user's shell
 - a) Verify the new user's selected shell is valid on the system
- 5) Create the new user with the supplied username, full name, and shell

ERROR HANDLING

User input errors should be handled gracefully, as shown in the following examples.

INVALID USER ERROR

```
Enter the username to create: root
**The username already exists. Please try again.**

Enter the username to create:
```

INVALID SHELL ERROR

```
Available Shells
-----
/bin/sh
/bin/bash
/sbin/nologin
/usr/bin/sh
/usr/bin/bash
/usr/sbin/nologin
/bin/tcsh
/bin/csh

Enter the user's shell: /bin/seashell

**Invalid shell. Please try again.**

Enter the user's shell:
```