Assignment 2 - Bash scripting

Objective: To explore the basics of Bash scripting.

Bash Shell Script Programming Assignment

Submission Requirements:

You need to submit a video and all the script files for this assignment. Submission of the video is mandatory. Your assignment will not be marked if the video is missing. Please DON'T upload the entire video to ecentennial, just submit the link to the video.

Instructions for submitting the video:

Create a video that shows the execution of the five scripts. **Follow the instructions under each question that tell you what to demonstrate in the video.** If any part of the instructions is skipped, you may lose marks for it.

Record a video that captures your screen and your voice.
a. You can use tools like OBS (https://obsproject.com/), Camtasia (https://www.techsmith.com/video-editor.html) to record your video
b. You do not need to perform any post-processing or editing (but it would be nice).
c. Ensure that your voice can be heard clearly and that your screen can also be seen clearly
3. Upload your Video to YouTube (or other streaming video provider) or Google Drive
a. You need to have a google account
b. You need to create a YouTube channel if you are creating a youtube video
c. No need to share your video publicly you can mark it as unlisted and distribute the link.

Instructions for submitting the script files:

Use the zip command (zip –r assignment2 sourcefiles) and upload your file assignment2.zip to the ecentennial Assignment 2 drop box.

Create a directory named sourcefiles in your home directory.

Question 1.

Create a shell script file called q1.sh

Write a script that would accept the two strings from the console and would display a message stating whether the accepted strings are equal to each other.

Instructions for video recording:

1. Open q1.sh file and show your code
2. Close the file and execute the script q1.sh
3. Enter "hello" for the first string input
4. Enter "hello" for the second string input
5. Show the output
6. Execute the script q1.sh again
7. Enter "hello" for the first string input
8. Enter "hi" for the second string input
9. Show the output

Question 2.

Create a shell script file called q2.sh

Write a bash script that takes a list of files in the current directory and copies them as into a sub-directory named mycopies.

Instructions for video recording:

1. Open q2.sh file and show your code.
2. Close the file. Now, show the list of files in the current directory.
3. If mycopies directory exists, open it and show the contents.
4. Execute the script q2.sh
5. Open mycopies directory and show that the files in your current directory have now been copied into the mycopies directory.

Question 3.

Create a shell script file called q3.sh

Write a Bash script that takes the side of a cube as a command line argument and displays the volume of the cube.

Instructions for video recording:

1. Open q3.sh file and show your code.
2. execute q3.sh with the side of cube (any integer) as a command line argument.

Question 4.

Create a shell script file called q4.sh

Write a Bash script that prompts you for a user name and displays the corresponding user's id number (UID), group id number (GID), and his/her home directory. Note: this information can be found in the /etc/passwd file.

Instructions for video recording:

1. Open q4.sh file and show your code.
2. execute q4.sh.
3. Enter your username as input
4. Show the output

Question 5.

Create a shell script file called q5.sh

Write a bash script that will edit the PATH environment variable to include the **sourcefiles** directory in your home directory and make the new variable global.

Instructions for video recording:

1. Open q5.sh file and show your code.
2. Show the content of your PATH variable

3. execute q5.sh.
4. Show the content of your PATH variable again
5. Show the content of your .bashrc file to show that the new PATH has been added to the .bashrc file from your script