CYSE 270: Linux System for Cybersecurity

Lab 8 – Shell Scripting

(Total 100 Points)

Please Refer to the slides for week-8-Shell scripting and write shell scripts to complete the following tasks. Submit the screenshot for the **script** and its output, both.

NOTE: Please replace the name of the script with the name you used for the script. In the sample screenshot, I have used those names to create my script.

Task A (Correct script (25 points) + result/output after executing the script (25 points)- Take your MIDAS/name

Write a script like below that reads **MIDAS/name** and displays the message (for example, the screenshot here), if the following requirements are satisfied:

1. Only lower-case letter [a-z] are allowed

2. MIDAS/name must be between 4 to 8 characters

Test your script with the following examples:

• Your MIDAS /name with one upper case

• A string less than 4 characters

• A string longer than 8 characters

• Your MIDAS/name in lower case, between 4-8 characters in length

```
Enter your MIDAS ID:
Svats
You must enter a valid MIDAS ID  It must be lowercase and betwen 4-8 characters only !
Try again:
sv
You must enter a valid MIDAS ID  It must be lowercase and betwen 4-8 characters only !
Try again:
shobhavatsa
You must enter a valid MIDAS ID  It must be lowercase and betwen 4-8 characters only !
Try again:
svatsa
Thank you! Your MIDAS ID is:  svatsa
```

Task B (Correct script (25 points) + result/output after executing the script (25 points) - Create a new directory

Write a shell script like below, that performs the following task:

1. **Reads** the name of the directory.
2. Check whether the given input is a directory or regular file.
3. If the input is a directory and exists, then display the message "Directory exists. Do not create".
   a. **(Extra credit: 10 points)** Display the contents for that directory)
4. If the input is a regular file, then display the message "It is a regular file. Do not create".
5. **If the given input name in step-1 doesn't exist**, then create the new directory with the given name in step-1.

(Sample screenshot for executing the script is shown below)

```
svatsa@svatsa-VirtualBox:~/script$ ./create_dir.sh
Enter the directory
/home
Directory exists! Do not create
svatsa@svatsa-VirtualBox:~/script$ ./create_dir.sh
Enter the directory
/etc/passwd
It is a regular file. Do not create.
svatsa@svatsa-VirtualBox:~/script$ ./create_dir.sh
Enter the directory
test_dir
Directory doesnn't exist, creating test_dir now...
svatsa@svatsa-VirtualBox:~/script$ ls -l
```

Extra Credit(15 points)- Check files

Write a script like below that

1. Gets the name of the directory as input.
2. Your script should check for the validity of the given directory name, if the entered filename is a directory or and pop out an error if an invalid directory name is entered.
3. You need to execute your script and test the following directories with your script (sample screenshot for executing the script is shown below in the screenshot):

• **/etc/systemd**

• **/home**

• **A directory that does not exist**

Display the contents for the directories you have entered (See the screenshot below)

```
└$ ./check_files.sh
Type your MIDAS:
svatsa
Enter the name of the directory you want to check:
/etc/systemd
Below are the contents /files in the directory with name , /etc/systemd:
journald.conf   network         pstore.conf    sleep.conf   system.conf      user
logind.conf     networkd.conf   resolved.conf  system       timesyncd.conf   user.conf

┌──(svatsa⊛svatsa)-[~]
└$ ./check_files.sh
Type your MIDAS:
svatsa
Enter the name of the directory you want to check:
/home
Below are the contents /files in the directory with name , /home:
svatsa
```

```
┌──(svatsa⊛svatsa)-[~]
└$ ./check_files.sh
Type your MIDAS:
svatsa
Enter the name of the directory you want to check:
desktop
Sorry svatsa, the entered directory desktop is not a valid directory name.
```

<mark>Please note:</mark>

Each student needs to screenshot your source code and the output after executing the script.