Module Pipe Redirection

How to Start Module:

- Before starting the module, Run the <module_script_name> to configure the environment and then <module_script_name> to verify you have done the work correctly
    1. Open a Terminal Window
    2. Clone the GitHub repo (If you have already downloaded Github Repo, skip Step2) (https://github.com/milodigwe/Linux_Essentials_m2itech)
        - From the command line type:
          git clone https://github.com/milodigwe/Linux_Essentials_m2itech
    3. Once repository is cloned, navigate to the Hands_On Folder and find the script named: **pipe_redirection.sh**
    4. Run the pipe_redirection.shscript: This will configure the environment for the hands-on module
        - **sh ./pipe_redirection.sh**
        - The script will ask you for your public IP of your instance (which you can find in your aws console) and your key_pair (which you downloaded and assigned to instance during the ec2 creation process) to log into your instance.
    5. Once the script is finished it will provide you with an output on how to log into the system.
        - Should look like: ssh -i <path to key pair> ec2-user@<ip address>
    6. Once logged in to the instance, Perform the required tasks below.
    7. To verify that you have performed the task correctly. You will need to run the **pipe_redirection_check.sh** script located in /home/ec2-user directory.
        - **pipe_redirection_check.sh** You must score a 100% to pass this module.
    8. Please Note * Terminate or Stop your instance when not using it.

HAPPY LEARNING!!!

Questions:

Note. These files will need to be created.

Lab 1: Use grep to filter lines containing a specific pattern “Linux is the new age operating system” from a text file (file.txt) found in /home/ec2-user/file.txt and redirect the output to a new file (filtered.txt) located in the same directory.

```
[ec2-user@ip-172-31-88-92 ~]$ grep "Linux is the new age operating system" file.txt
In today's digital landscape, Linux is the new age operating system, revolutionizing how we compute and innovate.
[ec2-user@ip-172-31-88-92 ~]$ grep "Linux is the new age operating system" file.txt > filtered.txt
[ec2-user@ip-172-31-88-92 ~]$ cat filtered.txt
In today's digital landscape, Linux is the new age operating system, revolutionizing how we compute and innovate.
```

Lab2: Combine Commands with Pipe **-** Use ls to list files in the ec2-user’s home directory and pipe the output to grep to filter for files with a specific extension (*.txt), and then redirect the filtered list to a text file called “result2.txt” located in /home/ec2-user/results directory.

```
[ec2-user@ip-172-31-39-104 ~]$ ls -l | grep .txt
-rw-r--r--. 1 ec2-user ec2-user   0 Jun 25 02:16 file1.txt
-rw-r--r--. 1 ec2-user ec2-user   0 Jun 25 02:16 file2.txt
-rw-r--r--. 1 ec2-user ec2-user   5 Jun 25 02:11 flitered.txt
-rw-r--r--. 1 ec2-user ec2-user 234 Jun 25 02:20 results2.txt
[ec2-user@ip-172-31-39-104 ~]$ ls -l | grep .txt > results2.txt
[ec2-user@ip-172-31-39-104 ~]$ cat results2.txt
-rw-r--r--. 1 ec2-user ec2-user 0 Jun 25 02:16 file1.txt
-rw-r--r--. 1 ec2-user ec2-user 0 Jun 25 02:16 file2.txt
-rw-r--r--. 1 ec2-user ec2-user 5 Jun 25 02:11 flitered.txt
-rw-r--r--. 1 ec2-user ec2-user 0 Jun 25 02:20 results2.txt
[ec2-user@ip-172-31-39-104 ~]$
```

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Lab 3: Use wc (word count) to count the number of lines in a text file (data.txt) located in ec2-user’s home directory and redirect the count to a new file (line_count.txt) in /home/ec2-user/results directory.

```
[ec2-user@ip-172-31-23-186 ~]$ wc -l data.txt
40 data.txt
[ec2-user@ip-172-31-23-186 ~]$ wc -l data.txt | awk '{print $1}'
40
[ec2-user@ip-172-31-23-186 ~]$ wc -l data.txt | awk '{print $1}' > line_count.txt
```

Lab 4: Use cat to concatenate two files (file.txt and file2.txt) in the ec2-users home directory and redirect the filtered output to a new file (important_lines.txt). Place this file into the results directory.

```
[ec2-user@ip-172-31-23-186 ~]$ cat file.txt file2.txt > important_lines.txt
[ec2-user@ip-172-31-23-186 ~]$ cat important_lines.txt
```

Run Check Script:

```
[ec2-user@ip-172-31-23-186 ~]$ sh ./pipe_redirection_check.sh
1. Checking for "Linux is the new age operating system" in 'file.txt'  PASS

2. Checking for same line found in 'filtered.txt'. Verification successful. PASS

3. Checking for the correct file ending in .txt exists in the results2.txt file. PASS

4. Checking for the correct number of lines in line_count.txt file PASS

5. Checking the same lines exist in important_lines.txt file. PASS
PASS

Score: 5 / 5
Your score is 100%, You have passed this module!!

Number of Correct : 5 / Number of Fail : 0 PASS
```