

Day 2: Shell Scripting

Task 3: Write a Bash script that:

Declares two variables, one string, and one integer.

Includes an if-else statement that prints a message based on the value of the integer.

```
rps@rps-virtual-machine: ~/24NAG1279_U03linux/day02
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ nano myscript.sh
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ chmod +x myscript.sh
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ ./myscript.sh
Hello World!
The number is greater than 5.
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$
```

```
GNU nano 6.2 myscript.sh
mystring="Hello World!"
mynumber=7
echo $mystring
if [ $mynumber -gt 5 ]; then
echo "The number is greater than 5."
else
echo "The number is 5 or less."
fi
```

Task 4: Loop and Function Script: Write a script that:

Uses a for loop to iterate over a list of file names.

For each file, calls a function that prints the number of lines in the file.

```
rps@rps-virtual-machine: ~/24NAG1279_U03linux/day02
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ nano file_line_counter.sh
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ chmod +x file_line_counter.sh
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ ./file_line_counter.sh
The file 'file1.txt' has 11 lines.
The file 'file2.txt' has 15 lines.
The file 'file3.txt' has 25 lines.
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$
```

```
GNU nano 6.2 file_line_counter.sh
count_lines() {
    local filename=$1
    if [ -f "$filename" ]; then
        local line_count=$(wc -l < "$filename")
        echo "The file '$filename' has $line_count lines."
    else
        echo "The file '$filename' does not exist."
    fi
}

file_list=("file1.txt" "file2.txt" "file3.txt")

for file in "${file_list[@]}; do
    count_lines "$file"
done
```

Task 5: Pipes and Filters: Write a Bash script that:

Uses the `grep` command to find and list all occurrences of a specific word in a given file.

Pipes the output to `sort` to display the results alphabetically.

```
GNU nano 6.2 search_word.sh
search_and_sort() {
    local word=$1
    local filename=$2
    if [ -f "$filename" ]; then
        grep -o "\b$word\b" "$filename" | sort
    else
        echo "File '$filename' not found."
    fi
}
search_and_sort "sample" "sample.txt"
```

```
rps@rps-virtual-machine: ~/24NAG1279_U03linux/day02
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ nano search_word.sh
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ chmod +x search_word.sh
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$ ./search_word.sh
sample
sample
sample
rps@rps-virtual-machine:~/24NAG1279_U03linux/day02$
```