Assignment 3

Tasks:

1: Basic Functions

Objective: Write a shell script that uses a function to print a greeting.

```bash
#!/bin/bash

greet() {
        echo "Hello buddy , Good Afte Afternoon !!!"
}
greet
```

```
venis@venis-VirtualBox: ~/DevOps
venis@venis-VirtualBox:~/DevOps$ bash Task1_Assignment1.sh
Hello buddy , Good Afternoon !!!
venis@venis-VirtualBox:~/DevOps$
```

2: Debugging Scripts

Objective: Write a buggy shell script and use debugging to identify and fix the issue.

```bash
1 #!/bin/bash
2
3 echo "Enter First Number : "
4 read num1
5
6 echo "Enter Second Number : "
7 read num2
8
9 sum=(($num1 + $num2))
10 echo "Sum : $sum"
```

Debugged script:

```
venis@venis-VirtualBox:~/DevOps$ bash -x ./task2_assignment3.sh
+ echo 'Enter First Number : '
Enter First Number :
+ read num1
14
+ echo 'Enter Second Number : '
Enter Second Number :
+ read num2
65
+ sum=79
+ echo 'Sum : 79'
Sum : 79
venis@venis-VirtualBox:~/DevOps$
```

fixed script:

```bash
1 #!/bin/bash
2
3 echo "Enter First Number : "
4 read num1
5
6 echo "Enter Second Number : "
7 read num2
8
9 sum=$(($num1 + $num2))
10 echo "Sum : $sum"
```

3: Using Functions for Repetitive Tasks

Objective: Write a shell script that uses a function to create multiple directories.

Sh file:

```bash
1 #!/bin/bash
2
3 createDir() {
4         for i in "$@"
5         do
6                 mkdir -p "$i"
7                 echo "directory $i created"
8         done
9 }
10 read dirs
11 createDir $dirs
```

```
venis@venis-VirtualBox:~/DevOps$ chmod +x task3_assignment.sh
venis@venis-VirtualBox:~/DevOps$ ./task3_assignment.sh
Enter directory names separated by space:
direct1 direct2 direct3 direct4 direct5
Directory 'direct1' created.
Directory 'direct2' created.
Directory 'direct3' created.
Directory 'direct4' created.
Directory 'direct5' created.
Script execution completed.
```

4: Script with All Learned Concepts

Objective: Write a shell script that uses variables, conditionals, loops, and functions to interact with the file system.

Script:

```bash
 1 #!/bin/bash
 2
 3 create_directory() {
 4    echo "Enter the name of the directory to create:"
 5    read -r dir_name
 6
 7    if [ -e "$dir_name" ]; then
 8      echo "Error: Directory '$dir_name' already exists."
 9    else
10      mkdir "$dir_name"
11      echo "Directory '$dir_name' created."
12    fi
13 }
14
15 list_files() {
16    echo "Listing files in the current directory:"
17    ls
18 }
19
20 # Main script
21 while true; do
22    echo "Choose an operation:"
23    echo "1. Create Directory"
24    echo "2. List Files"
25    echo "3. Exit"
26
27    read -r choice
27    read -r choice
28
29    case $choice in
30      1)
31        create_directory
32        ;;
33      2)
34        list_files
35        ;;
36      3)
37        echo "Exiting script."
38        exit 0
39        ;;
40      *)
41        echo "Invalid choice. Please enter a valid option (1-3)."
42        ;;
43    esac
44 done
```

```
venis@venis-VirtualBox:~/DevOps$ chmod +x task4_assignment.sh
venis@venis-VirtualBox:~/DevOps$ ./task4_assignment.sh
Choose an operation:
1. Create Directory
2. List Files
3. Exit
```