**Lab 8- Shell Scripting**

**Task A**

1. Add the Shebang(#!/bin/bash) as the first line in your script.
2. Read a number using the read function.
3. Using if statement, check if the input number is greater than 10, then print the message Input number is greater than 10".
4. If the number is not greater than 10, then print the message, "Input number is not greater than 10".

```
#!/bin/bash
# Read a number from the user
 echo "Please enter a number:"
 read number # Use the read command to capture user input

# Check if the number is greater than 10
 if [ "$number" -gt 10 ];  then
        echo "Input number is greater than 10."
else
        echo "Input number is not greater than 10."
fi # This is the closing 'if'
~
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~
"ldavi029.sh" 12L, 331B                                    12,29         All
```

```
┌──(liana㉿kali)-[~]
└─$ ./ldavi029.sh
Please enter a number:
6
Input number is not greater than 10.

┌──(liana㉿kali)-[~]
└─$ ./ldavi029.sh
Please enter a number:
17
Input number is greater than 10.
```

**Task B**

1. Add the Sheband (#!bin/bash) as the first line in your script.
2. Reads the name of the file to check for a filename that exists.
3. Check whether the given input is a directory or regular file.
4. If the input is a directory and exists, then display the message “Directory exists.”
5. If the input is a regular file, then display the message “It is a regular file, and the file exists” and display the contents of the file.
6. If the given input name in step-1 doesn’t exist, then create the new file with the given name in step-1.

```
#!/bin/bash
    liana@kali: [~]
# Step 2: Read the name of the file or directory from the user
 echo "Enter the filename or directory name:"
 read input

# Step 3: Check whether the input is a directory or regular file
 if [ -d "$input" ];  then
         # Step 4: If it's a directory and exists, display a message
        echo "Directory exists."
elif [ -f "$input" ]; then
        # Step 5: If it's a regular file and exists, display a message and it
s contents
        echo "It is a regular file, and the file exists."
        cat "$input"
else
        # Step 6: If the file/directory doesn't exist, create a new file with
 the given name
        echo "$input does not exist. Creating a new file..."
       touch "$input"
        echo "New file $input created."

fi # This is the closing 'if'
```

```
┌──(liana㉿kali)-[~]
└─$ ./liana029.sh
Enter the filename or directory name:
liana029.sh
It is a regular file, and the file exists.
```

**Extra Credit**

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:
   /etc/systemd
   /home
   a directory that does not exist

```bash
#!/bin/bash
#Step 1: Get the directory name as input
echo "Please enter the directory name:"
read dir_name # Stores user input in the dir_name variable

# Step 2: Check if the entered name is a valid directory
if [ -d "$dir_name" ]; then
        # If it's a valid directory, display a success message
        echo "The directory '$dir_name' exists."

        # Display the contents of the directory using 'ls'
        echo "Contents of the directory:"
        ls "$dir_name" # List the contents of the directory

else
        # If it's not a valid directory, show an error message
        echo "Error: '$dir_name' is not a valid directory."
fi
```

```
┌──(liana㉿kali)-[~]
└─$ ./check_directory.sh
Please enter the directory name:
/etc/systemd
The directory '/etc/systemd' exists.
Contents of the directory:
journald.conf  networkd.conf  system          user
logind.conf    pstore.conf    system.conf     user.conf
network        sleep.conf     timesyncd.conf

┌──(liana㉿kali)-[~]
└─$ ./check_directory.sh
Please enter the directory name:
/home
The directory '/home' exists.
Contents of the directory:
Emma  Olivia  Sophia  cyse_project  emma  liana  olivia  sophia

┌──(liana㉿kali)-[~]
└─$ ./check_directory.sh
Please enter the directory name:
desktop
Error: 'desktop' is not a valid directory.
```