RIPHAH INTERNATIONAL UNIVERSITY, ISLAMABAD

Lab#9

Bachelors of Computer Science – 5th Semester
Subject: Operating System

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Q1

Run following script. And examine output.

```
#!/bin/sh
clear
date > lab9
echo -e "lab9 file contains:"
cat < lab9
```

Answer:

```
#!/bin/bash
clear
date > lab9
echo -e "lab9 file contains:"
cat <lab9
```

Q2.

A file contains following script. Execute this code

#!/bin/sh

clear

x=5

y=0

echo "The value of X = " $x

y=$(expr $x + 5)

echo "The value of Y = " $y

Answer:

```
#!/bin/bash

clear
x=5
y=0
echo "The value of X = " $x
y=$(expr $x + 5)
echo "The value of Y = " $y
~
```

```
"task2.sh" [New] 8L, 100B written
[root@localhost OSLAB_09]# chmod 777 task2.sh
[root@localhost OSLAB_09]# ./task2.sh
The value of X =  5
The value of Y =  10
[root@localhost OSLAB_09]#
```

Q3.
Write shell script that reads 2 integer values from user and print their sum on screen.

Answer:

```
#!/bin/bash
echo "Enter Integer"
read number1
echo "Enter another integer"
read number2
sum=$(expr $number1 + $number2)
echo "The sum is: " $sum
```

```
"sum1.sh" [New] 7L, 145B written
[root@localhost File]# chmod 777 sum1.sh
[root@localhost File]# ./sum1.sh
Enter Integer
2
Enter another integer
5
The sum is:  7
[root@localhost File]#
```

Q4.
Write shell script that takes string from user, and make folder with named with string.
Folder should contain file with named timestamp. Having current time and date
written on it.

Answer:

```
#!/bin/bash

echo "Enter folder name: "
read folder_name
mkdir $folder_name
timestamp=$(date)
echo $timestamp > $folder_name/timestamp.txt
echo "Folder '$folder_name' and file 'timestamp.txt' created"
```

```
"task4.sh" [New] 9L, 202B written
[root@localhost OSLAB_09]# chmod 777 task4.sh
[root@localhost OSLAB_09]# ./task4.sh
Enter folder name:
Dua
Folder 'Dua' and file 'timestamp.txt' created
[root@localhost OSLAB_09]#
```

Q5.

Write a shell script to get the total count of the word "Linux" in all the ".txt" files and also across files present in subdirectories.

Answer:

```
#!bin/bash
grep -rwo "Linux" --include="*.txt" . | wc -l
~
```

```
"task5.sh" 2L, 59B written
[root@localhost OSLAB_09]# chmod 777 task5.sh
[root@localhost OSLAB_09]# ./task5.sh
0
[root@localhost OSLAB_09]#
```

Q6.
Write shell script that defines 2 integers and one float value like

a=5

b=7

c=5.5

Perform multiplication of integers then divide with float.

and finally print result with four decimal places. like 6.3636

you have to use pipe operator (|) to send variables to bc utility for arithmetic.
Answer:

```
#!/bin/bash
echo "Enter Integer"
#!/bin/bash
a=5
b=7
c=5.5
result=$(echo "scale=4; ($a*$b) / $c" | bc)
echo "Result is:" $result
```

```
"sum2.sh" [New] 6L, 96B written
[root@localhost File]# chmod 777 sum2.sh
[root@localhost File]# ./sum2.sh
Result is: 6.3636
[root@localhost File]#
```