Name: Hamza Rahim

Sap-Id: 56776

Course: Operating System

Lab Task#10

Task 1:

Put this code in a file and executes with two, three and four arguments.

echo "The following is the output of $0 script:"

echo "The total number of command line argument:$#"

echo "The first parameter:$1"

echo "The second parameter:$2

```
Hamza@Ubuntu:~$ touch lab10.sh
Hamza@Ubuntu:~$ cat>lab10.sh
echo "The following is the output of $0 script:"
echo "The total number of command line argument:$#"
echo "The first parameter:$1"
echo "The second parameter:$2"
Hamza@Ubuntu:~$ chmod u+x lab10.sh
Hamza@Ubuntu:~$ ./lab10.sh one two
The following is the output of ./lab10.sh script:
The total number of command line argument:2
The first parameter:one
The second parameter:two
Hamza@Ubuntu:~$
```

Task2:

```
Hamza@Ubuntu:~$ ^c
bash: :s^c: substitution failed
Hamza@Ubuntu:~$ ./lab10.sh one two three four
The following is the output of ./lab10.sh script:
The total number of command line argument:4
The first parameter:one
The second parameter:two
Hamza@Ubuntu:~$ ./lab10.sh two three
The following is the output of ./lab10.sh script:
The total number of command line argument:2
The first parameter:two
The second parameter:three
Hamza@Ubuntu:~$
```

Task3:

```
Hamza@Ubuntu:~$ touch task2.sh
Hamza@Ubuntu:~$ cat>task2.sh
dog=lassie #no space before and after =
test $dog = lassie #space before and after =
echo $? #test is true, therefore $? sets to 0

test $dog = pluto
echo $? #test is false, therefore $? sets to 1
Hamza@Ubuntu:~$ chmod u+x task2.sh
Hamza@Ubuntu:~$ ./task2.sh
0
1
Hamza@Ubuntu:~$
```

Task4:

```
Hamza@Ubuntu:~$ test -r script1
Hamza@Ubuntu:~$ echo $?
1
Hamza@Ubuntu:~$ test -r task2.sh
Hamza@Ubuntu:~$ echo $?
0
Hamza@Ubuntu:~$
```

Task5:

```
Hamza@Ubuntu:~$ [-r count]
[-r: command not found
Hamza@Ubuntu:~$ echo $?
127
```

```
Hamza@Ubuntu:~$ [ -r count ]
Hamza@Ubuntu:~$ echo $?
1
Hamza@Ubuntu:~$
```

Task6:

```
Hamza@Ubuntu:~$ touch task3.sh
Hamza@Ubuntu:~$ cat>task3.sh
# scripts which compares two numbers

A=1
B=10

if test $B -gt $A
then
        echo " $B greater then $A "
fi
Hamza@Ubuntu:~$ chmod u+x task3.sh
Hamza@Ubuntu:~$ ./task3.sh
 10 greater then 1
Hamza@Ubuntu:~$
```

Task7:

```
Hamza@Ubuntu:~$ touch task4.sh
Hamza@Ubuntu:~$ cat>task4.sh
echo " Enter a number between (1-5) "
read NUMBER
          case "$NUMBER" in

     1)    echo " You pressed one. ";;
     2)    echo " You pressed two. ";;
     3)    echo " You pressed three. ";;
     4|5|five)   echo " You pressed four/five";;
     *)      echo " you pressed invalid number. ";;

    esac
Hamza@Ubuntu:~$ chmod u+x task4.sh
Hamza@Ubuntu:~$ ./task4.sh
 Enter a number between (1-5)
1
 You pressed one.
Hamza@Ubuntu:~$
```

Task8:

Exercise 3:

There are three semesters in an academic year i.e.

Fall (Aug-Jan), Spring (Feb-May) and Summer (JunJuly).

Write a script which read current month from the user and determine running semester.

For example if user enters current month either 1 or January or Jan the script should display "Fall Semester".

Hint: use CASE structure.

```
Hamza@Ubuntu:~$ touch task5.sh
Hamza@Ubuntu:~$ cat>task5.sh
#!/bin/bash

read -p "Enter current month (number or name): " month
month=$(echo "$month" | tr '[:upper:]' '[:lower:]')

case "$month" in
    8|9|10|11|12|1|jan|january|aug|august|sep|september|oct|october|nov|november|dec|december)
        echo "Fall Semester"
        ;;
    2|3|4|5|feb|february|mar|march|apr|april|may)
        echo "Spring Semester"
        ;;
    6|7|jun|june|jul|july)
        echo "Summer Semester"
        ;;
    *)
        echo "Invalid month entered. Please try again."
        ;;
esac
Hamza@Ubuntu:~$ chmod u+x task5.sh
Hamza@Ubuntu:~$ ./task5.sh
Enter current month (number or name): 7
Summer Semester
Hamza@Ubuntu:~$
```

Task9:

Exercise 4:

Copy script that is written in above program and implement again but this time pass input using arguments like script Jan

```
Hamza@Ubuntu:~$ touch task6.sh
Hamza@Ubuntu:~$ cat>task6.sh
#!/bin/bash

if [ -z "$1" ]; then
    read -p "Enter current month (number or name): " month
else
    month=$1
fi

month=$(echo "$month" | tr '[:upper:]' '[:lower:]')

case "$month" in
    8|9|10|11|12|1|jan|january|aug|august|sep|september|oct|october|nov|november|dec|decembe
        echo "Fall Semester"
        ;;
    2|3|4|5|feb|february|mar|march|apr|april|may)
        echo "Spring Semester"
        ;;
    6|7|jun|june|jul|july)
        echo "Summer Semester"
        ;;
    *)
        echo "Invalid month entered. Please try again."
```

```
case "$month" in
    8|9|10|11|12|1|jan|january|aug|august|sep|september|oct|october|nov|november|dec|december)
        echo "Fall Semester"
        ;;
    2|3|4|5|feb|february|mar|march|apr|april|may)
        echo "Spring Semester"
        ;;
    6|7|jun|june|jul|july)
        echo "Summer Semester"
        ;;
    *)
        echo "Invalid month entered. Please try again."
        ;;
esac
Hamza@Ubuntu:~$ chmod u+x task6.sh
Hamza@Ubuntu:~$ ./task6.sh
Enter current month (number or name): 6
Summer Semester
```

Task10:

Exercise 5:

Write a script which first picks hours from the system date and then greets the user according to following conditions.

use if else structure to solve this example

Hours 00 – 11 “Good Morning”

Hours 12-17 “Good Afternoon”

Hours 18-23 “Good night”

Hint:- To take system hours use: date +%H, use

```
Hamza@Ubuntu:~$ touch task7.sh
Hamza@Ubuntu:~$ cat > task7.sh
#!/bin/bash

hour=$(date +%H)

if [ $hour -ge 0 ] && [ $hour -lt 12 ]; then
    echo "Good Morning"
elif [ $hour -ge 12 ] && [ $hour -lt 18 ]; then
    echo "Good Afternoon"
else
    echo "Good Night"
fi
Hamza@Ubuntu:~$ chmod u+x task7.sh
Hamza@Ubuntu:~$ ./task7.sh
Good Morning
Hamza@Ubuntu:~$
```