**ASSIGNMENT NO-4**

**1) Write a shell script to calculate simple interest:**

[user1@localhost ~]$ nano s.sh

#! /bin/bash

echo "\*\*\*\*\*Simple Interest Program\*\*\*\*\*"

echo "Enter the principle value: "

read p

echo "Enter the rate of interest:"

read r

echo "Enter the time period:"

read t

si=`echo "$p \*$r \*$t / 100" |bc`

echo "The simple interest is "

echo "si=$si"

echo $s

**OUTPUT:**

[user1@localhost ~]$ ./s.sh

\*\*\*\*\*Simple Interest Program\*\*\*\*\*

Enter the principle value:

1000

Enter the rate of interest:

10

Enter the time period:

2

The simple interest is

si=200

**2) Write a shell script to calculate salary from given basic.**

**Salary = basic + dp + da +hra +ma –pf**

**basic – to be taken as input**

**dp - 50 % of basic**

**da - 35 % of (basic + dp)**

**hra - 8 % of (basic + dp)**

**ma - 3 % of (basic + dp)**

**pf - 10% of (basic + dp)**

[user1@localhost ~]$ nano salary.sh

#! /bin/bash

echo -e "Enter the value of Basic Salary: \c"

read basic\_sal

if [ $basic\_sal -ge 0 ]

then

basic=$(expr 1.0\*"$basic\_sal" | bc)

dp=$(expr 0.5\*"$basic"| bc)

temp=$(expr "$basic"+"$dp" | bc)

da=$(expr 0.35\*"$temp" | bc)

hra=$(expr 0.08\*"$temp" | bc)

ma=$(expr 0.03\*"$temp" | bc)

pf=$(expr 0.1\*"$temp" | bc)

salary=$(expr "$basic"+"$dp"+"$da"+"$hra"+"$ma"-" $pf" | bc)

echo "Your Basic Salary: $basic "

echo "Your DP: $dp "

echo "Your DA: $da"

echo "Your HRA: $hra"

echo "Your MA: $ma"

echo "Your PF: $pf"

echo "-------------------"

echo "Your Net Salary is Rs. $salary "

else

echo "Please enter a valid Basic Salary "

fi

**OUTPUT:**

[user1@localhost ~]$ ./salary.sh

Enter the value of Basic Salary: 20000

Your Basic Salary: 20000.0

Your DP: 10000.0

Your DA: 10500.00

Your HRA: 2400.00

Your MA: 900.00

Your PF: 3000.0

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Your Net Salary is Rs. 40800.00

[user1@localhost ~]$

**3) Write a shell script to calculate the average of a 3 number.**

[user1@localhost ~]$ nano file.sh

#! /bin/bash

echo "\*\*\*\*\*Average\*\*\*\*\*"

echo "Enter first number: "

read a

echo "Enter second number:"

read b

echo "Enter third number:"

read c

Avg=`echo "( $a+$b+$c)/3 " |bc`

echo "The Average of three number is "

echo "Avg=$Avg"

echo $s

OUTPUT:

[user1@localhost ~]$ ./file.sh

\*\*\*\*\*Average\*\*\*\*\*

Enter first number:

50

Enter second number:

60

Enter third number:

70

The Average of three number is

Avg=60

**4). Write a shell script to create a command line calculator.**

**e.g. input : mycal 5 + 5 Result : 10 , input : mycal 5 / 5 result : 1**

[user1@localhost ~]$ nano mycal.sh

#! /bin/bash

echo "select from following the operation to be performed

'+'for addition

'-'for subtraction

'X'for multiplication

'/'for division"

read -p "enter first number=" n1

read -p "enter second number=" n2

read -p "enter choice= " ch

case $ch in

+)sum=`echo "$n1 + $n2" |bc`

echo "addition of number is:$sum"

;;

-)sub=`echo "$n1 - $n2" |bc`

echo "subtraction of number is:$sub"

;;

X)mul=`echo "$n1 \* $n2" |bc`

echo "multiplication of number is:$mul"

;;

/)div=`echo "$n1 / $n2" |bc`

echo "division of number is: $div"

;;

\*)exit 1

;;

esac

**OUTPUT:**

[user1@localhost ~]$ ./mycal.sh

select from following the operation to be performed

'+'for addition

'-'for subtraction

'X'for multiplication

'/'for division

enter first number=15

enter second number=25

enter choice= +

addition of number is:40

[user1@localhost ~]$ ./mycal.sh

select from following the operation to be performed

'+'for addition

'-'for subtraction

'X'for multiplication

'/'for division

enter first number=90

enter second number=45

enter choice= -

subtraction of number is:45

[user1@localhost ~]$ ./mycal.sh

select from following the operation to be performed

'+'for addition

'-'for subtraction

'X'for multiplication

'/'for division

enter first number=77

enter second number=11

enter choice= X

multiplication of number is:847

[user1@localhost ~]$ ./mycal.sh

select from following the operation to be performed

'+'for addition

'-'for subtraction

'X'for multiplication

'/'for division

enter first number=72

enter second number=9

enter choice= /

division of number is: 8

**5) Write a shell script to accept 2 numbers and display which number is greater**

[user1@localhost ~]$ nano gre.sh

#! /bin/bash

echo "Enter Num1"

read num1

echo "Enter Num2"

read num2

if [ $num1 -gt $num2 ]

then

echo "Greater number is:" $num1

else

echo "Greater number is:" $num2

fi

**OUTPUT:**

[user1@localhost ~]$ ./gre.sh

Enter Num1

100

Enter Num2

33

Greater number is: 100

[user1@localhost ~]$

**6) Create a script to Create user , Delete user , Create group , delete Group using case:**

[user1@localhost ~]$ nano case.sh

#! /bin/bash

echo "press 1 to create user, 2 to Delet user, 3 to Create group,

4 to Delet group , Q to exit"

read -p "enter choice:" choice

case $choice in

1)echo "Enter user name to be created:"

read name

sudo useradd $name

tail -n 3 /etc/passwd

echo "\*\*\*$name User are added\*\*\*\*"

;;

2)echo "enter name of user to be deleted:"

read name

sudo userdel $name

tail -n 3 /etc/passwd

echo "\*\*\*\*$name User are deleted\*\*\*\*\*\*"

;;

3)echo "enter group name to be added:"

read gname

sudo groupadd $gname

tail -n 3 /etc/group

echo "\*\*\*\*$name Group are added\*\*\*\*\*\*"

;;

4)echo "enter group name to be deleted:"

read gname

sudo groupdel $gname

tail -n 3 /etc/group

echo "\*\*\*\*$name Group are deleted\*\*\*\*\*\*"

;;

Q)exit 0;;

\*)echo "Invalid choice"

exit 1;;

esac

**OUTPUT:**

[user1@localhost ~]$ ./case.sh

press 1 to create user, 2 to Delet user, 3 to Create group,

4 to Delet group , Q to exit

enter choice:1

Enter user name to be created:

Alice

[sudo] password for user1:

sam1:x:1007:1010::/home/sam1:/bin/bash

prince1:x:1008:1011::/home/prince1:/bin/bash

Alice:x:1009:1015::/home/Alice:/bin/bash

\*\*\*Alice User are added\*\*\*\*

[user1@localhost ~]$

[user1@localhost ~]$ ./case.sh

press 1 to create user, 2 to Delet user, 3 to Create group,

4 to Delet group , Q to exit

enter choice:2

enter name of user to be deleted:

Alice

bob1:x:1006:1009::/home/bob1:/bin/bash

sam1:x:1007:1010::/home/sam1:/bin/bash

prince1:x:1008:1011::/home/prince1:/bin/bash

\*\*\*\*Alice User are deleted\*\*\*\*\*\*

[user1@localhost ~]$

user1@localhost ~]$ ./case.sh

press 1 to create user, 2 to Delet user, 3 to Create group,

4 to Delet group , Q to exit

enter choice:3

enter group name to be added:

dany

DBDA:x:1013:bob

DITISS:x:1014:sam

dany:x:1015:

\*\*\*\* Group are added\*\*\*\*\*\*

[user1@localhost ~]$

[user1@localhost ~]$ ./case.sh

press 1 to create user, 2 to Delet user, 3 to Create group,

4 to Delet group , Q to exit

enter choice:4

enter group name to be deleted:

dany

DAC:x:1012:tom

DBDA:x:1013:bob

DITISS:x:1014:sam

\*\*\*\* Group are deleted\*\*\*\*\*\*

[user1@localhost ~]$

[user1@localhost ~]$ ./case.sh

press 1 to create user, 2 to Delet user, 3 to Create group,

4 to Delet group , Q to exit

enter choice:Q

[user1@localhost ~]$ ./case.sh

press 1 to create user, 2 to Delet user, 3 to Create group,

4 to Delet group , Q to exit

enter choice:abc

Invalid choice

[user1@localhost ~]$