# Program:

echo "Please select the required operation"

echo "1.Decimal to Binary"

echo "2.Binary to Decimal"

echo "3.Decimal to Octal"

echo "4.Octal to Decimal"

echo "5.Octal to Binary"

echo "6.Binary to Octal"

echo "7.Decimal to Hexadecimal"

echo "8.HexaDecimal to Decimal"

read input

r=0

case $input in

1)echo "Enter the Decimal value :"

read num

while [ $num -ne 0 ]

do

r=`expr $num \% 2`

num=`expr $num \/ 2`

res="$r$res"

done

echo "Binary value : " $res

;;

2)echo "Enter the Binary value :"

read num

i=0

while [ $num -ne 0 ]

do

r=`expr $num \% 10`

num=`expr $num \/ 10`

re=`echo 2 ^ $i |bc`

ree=`expr $r \\* $re`

res=`expr $res + $ree`

i=`expr $i + 1`

done

echo "DECIMAL VALUE :" $res

;;

3)echo "Enter the Decimal value:"

read num

while [ $num -ne 0 ]

do

r=`expr $num \% 8`

num=`expr $num \/ 8`

res="$r$res"

done

echo "OCTAL value : " $res

;;

4)echo "Enter the Octal value :"

read num

i=0

while [ $num -ne 0 ]

do

r=`expr $num \% 10`

num=`expr $num \/ 10`

re=`echo 8 ^ $i |bc`

ree=`expr $r \\* $re`

res=`expr $res + $ree`

i=`expr $i + 1`

done

echo "DECIMAL VALUE :" $res

;;

6)echo "Enter the Binary value :"

read num

for (( i=1; i<4;i++))

do

r=`expr $num \% 10`

num=`expr $num \/ 10`

num1="$r$num1"

done

until [ $num -eq 0 ]

do

r1=`expr $num \% 10`

num=`expr $num \/ 10`

num2="$r1$num2"

done

i=0

while [ $num1 -ne 0 ]

do

r=`expr $num1 \% 10`

num1=`expr $num1 \/ 10`

re=`echo 2 ^ $i |bc`

ree=`expr $r \\* $re`

res1=`expr $res1 + $ree`

i=`expr $i + 1`

done

res="$res2$res1"

echo "Octal value : " $res

;;

5)echo "Enter the Octal value :"

read num

i=0

while [ $num -ne 0 ]

do

r=`expr $num \% 10`

num=`expr $num \/ 10`

re=`echo 8 ^ $i |bc`

ree=`expr $r \\* $re`

res=`expr $res + $ree`

i=`expr $i + 1`

done

num=$res

while [ $num -ne 0 ]

do

r=`expr $num \% 2`

num=`expr $num \/ 2`

res1="$r$res1"

done

echo "Binary value : " $res

;;

7)echo "Enter the Decimal value:"

read num

while [ $num -ne 0 ]

do

r=`expr $num \% 16`

num=`expr $num \/ 16`

case $r in

10)r='A'

;;

11)r='B'

;;

12)r='C'

;;

13)r='D'

;;

14)r='E'

;;

15)r='F'

;;

esac

res="$r$res"

done

echo "Hexadecimal value :" $res

;;

8)echo "Enter the HexaDecimal value :"

read num

i=0

while [ $num -ne 0 ]

do

r=`expr $num \% 10`

num=`expr $num \/ 10`

case $r in

'A')r=10

;;

'B')r=11

;;

'C')r=12

;;

'D')r=13

;;

'E')r=14

;;

'F')r=15

;;

esac

re=`echo 16 ^ $i |bc`

ree=`expr $r \\* $re`

res=`expr $res + $ree`

i=`expr $i + 1`

done

echo "DECIMAL VALUE :" $res

;;

Esac

# Output:

