**Day 10&11**

**Sorting Arithmetic Computation Problem**

echo " Day 10 Prob 01 "

echo "Enter value of a :"

read a

echo "Enter value of b :"

read b

echo "Enter value of c :"

read c

declare -A diction

function arithmeticFunction() {

result=$(( a + b \* c))

diction[1]=$result

result=$(( a \* b + c))

diction[2]=$result

result=$(( c + a / b))

diction[3]=$result

result=$(( a % b + c))

diction[4]=$result

echo "${diction[\*]}"

}

arithmeticFunction

declare -a array

for key in "${diction[\*]}";

do

array=($key)

done

echo "

Elements in array : ${array[\*]}"

n=${#array[\*]}

echo "Sorting $n elements"

for ((i=0; i <= $n; i++))

do

for ((j=((i + 1)); j <= $n; j++))

do

if [[ ${array[i]} -gt ${array[j]} ]]

then

tmp=${array[i]}

array[i]=${array[j]}

array[j]=$tmp

fi

done

done

echo "Array in Ascending order : ${array[\*]} "

for ((i=0; i <= $n; i++))

do

for ((j=((i + 1)); j <= $n; j++))

do

if [[ ${array[i]} -lt ${array[j]} ]]

then

tmp=${array[i]}

array[i]=${array[j]}

array[j]=$tmp

fi

done

done

echo "Array in Descending order : ${array[\*]}

**Flip Coin Simulation**

**This problem displays the winner Heads or Tails**

flips=1

heads=0

tails=0

while [ $flips -le 100 ]

do

Result=$((RANDOM%2))

flips=$((flips+1))

if [ ${Result} -eq 0 ]

then

echo "HEADS"

heads=$((heads+1))

elif [ ${Result} -eq 1 ]

then

echo "TAILS"

tails=$((tails+1))

fi

done

echo "You got $heads HEADS And $tails TAILS."

if [ $heads -gt $tails ]

then

echo "Win"

elif [ $heads -lt $tails ]

then

echo "Loose"

else [ $heads -eq $tails ]

echo "Tie"

fi