Write a program in the following steps

a. Roll a die and find the number between 1 to 6

b. Repeat the Die roll and find the result each time

c. Store the result in a dictionary

d. Repeat till any one of the number has reached 10 times

e. Find the number that reached maximum times and the one that was for minimum times

#! /bin/bash

declare -A results

maxkey=0

minkey=0

maxvalue=0

minvalue=10

results=([1]=0 [2]=0 [3]=0 [4]=0 [5]=0 [6]=0)

while [ ${results[1]} -ne 10 -a ${results[2]} -ne 10 -a ${results[3]} -ne 10 -a ${results[4]} -ne 10 -a ${results[5]} -ne 10 -a ${results[6]} -ne 10 ]

do

val=$((RANDOM%6+1))

results[$val]=$((${results[$val]}+1))

done

echo "Key: "${!results[@]}

echo "Val: "${results[@]}

for ((i=1;i<=6;i++))

do

if [ $((${results[$i]})) -gt $maxvalue ]

then

maxvalue=$((${results[$i]}))

maxkey=$i

fi

if [ $((${results[$i]})) -lt $minvalue ]

then

minvalue=$((${results[$i]}))

minkey=$i

fi

done

echo "KEY Max: "$maxkey "| VALUE Max: "$maxvalue

echo "KEY Max: "$minkey "| VALUE Min: "$minvalue

Key: 1 2 3 4 5 6

Val: 3 6 6 10 6 3

KEY Max: 4 | VALUE Max: 10

KEY Max: 1 | VALUE Min: 3

Write a Program to generate a birth month of 50 individuals between the

year 92 & 93. Find all the individuals having birthdays in the same month.

Store it to finally print.

#! /bin/bash

declare -A months

declare -A results

for ((kid=1;kid<=50;kid++))

do

val=$((RANDOM%12+1))

months[$kid]=$((val))

done

for date in ${months[@]}

do

results[$date]=$((${results[$date]}+1))

done

for ((month=1;month<=12;month++))

do

echo "Month: "$month "No. of Births: "${results[$month]}

for ((child=1;child<=50;child++))

do

if [ ${months[$child]} -eq $month ]

then

echo "-Child no.: "$child

fi

done

done

Month: 1 No. of Births: 8

-Child no.: 5

-Child no.: 16

-Child no.: 22

-Child no.: 23

-Child no.: 24

-Child no.: 35

-Child no.: 42

-Child no.: 49

Month: 2 No. of Births: 2

-Child no.: 25

-Child no.: 27

Month: 3 No. of Births: 6

-Child no.: 2

-Child no.: 10

-Child no.: 14

-Child no.: 32

-Child no.: 41

-Child no.: 46

Month: 4 No. of Births: 6

-Child no.: 6

-Child no.: 19

-Child no.: 29

-Child no.: 38

-Child no.: 39

-Child no.: 50

Month: 5 No. of Births: 3

-Child no.: 4

-Child no.: 15

-Child no.: 26

Month: 6 No. of Births: 3

-Child no.: 9

-Child no.: 28

-Child no.: 47

Month: 7 No. of Births: 6

-Child no.: 7

-Child no.: 12

-Child no.: 13

-Child no.: 20

-Child no.: 34

-Child no.: 43

Month: 8 No. of Births: 2

-Child no.: 8

-Child no.: 36

Month: 9 No. of Births: 2

-Child no.: 37

-Child no.: 44

Month: 10 No. of Births: 1

-Child no.: 40

Month: 11 No. of Births: 6

-Child no.: 1

-Child no.: 3

-Child no.: 11

-Child no.: 21

-Child no.: 31

-Child no.: 45

Month: 12 No. of Births: 5

-Child no.: 17

-Child no.: 18

-Child no.: 30

-Child no.: 33

-Child no.: 48