1. Use Random Function (( RANDOM )) to get Single Digits

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ nano random1.sh

#1 /bin/bash

random=$(( RANDOM%5+1 ))

echo $random

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./random1.sh

4

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./random1.sh

5

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./random1.sh

3

1. Use Random to get Dice Number between 1 to 6

Sol

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ nano randomdice.sh

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./randomdice.sh

5

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./randomdice.sh

5

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./randomdice.sh

5

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./randomdice.sh

6

#! /bin/bash

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

echo $random

3) Add two Random Dice Number and Print the Result

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ nano random.sh

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./random.sh

10 5

#! /bin/bash

random1=$(( RANDOM%15+5 ))

random2=$(( RANDOM%15+5 ))

echo $random1 $random2

4)Write a program that reads 5 Random 3 Digit values and then outputs the minimum

and the maximum value

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ nano 3\_random.sh

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./3\_random.sh

enter the value from user5

272 268 119 314 170

largest 314

smallest 272

#! /bin/bash

declare -a number

read -p "enter the value from user" n

i=0

while [ $i -lt $n ]

do

random=$(( RANDOM%500+100 ))

number[ $i ]=$random

i=$(( i+1 ))

done

echo ${number[@]}

i=0

max=${number[0]}

while [ $i -lt $n ]

do

if [ ${number[$i]} -gt $max ]

then

max=${number[$i]}

fi

i=$(( i+1))

done

echo "largest" $max

i=0

min=${number[0]}

while [ $i -gt $n ]

do

if [ ${number[$i]} -lt $max ]

then

min=${number[$i]}

fi

i=$(( i+1))

done

echo "smallest" $min

5) Write a program that reads 5 Random 2 Digit values , then find their

sum and the average

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ nano randomdice.sh

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./randomdice.sh

+ random1=59

+ random2=96

+ random3=32

+ random4=60

+ random5=64

+ echo 59 96 32 60 64

59 96 32 60 64

+ sum=311

+ avg=62

+ echo 'the sum is' 311

the sum is 311

+ echo 'the avg is ' 62

the avg is 62

#! /bin/bash -x

random1=$(( RANDOM%90+10 ))

random2=$(( RANDOM%90+10 ))

random3=$(( RANDOM%90+10 ))

random4=$(( RANDOM%90+10 ))

random5=$(( RANDOM%90+10 ))

echo $random1 $random2 $random3 $random4 $random5

sum=$(( random1 + random2 + random3 + random4 +random5 ))

avg=$(( $sum /5 ))

echo "the sum is" $sum

echo "the avg is " $avg

6) Write a program that takes day and month from the command line and prints true if

day of month is between March 20 and June 20, false otherwise.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ nano month.sh

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./month.sh

enter the date :- 20

enter the month :-april

april 20 true

#! /bin/bash

read -p "enter the date :- " date

read -p "enter the month :-" month

if (( ($month <= 6 & $date <= 20) ))

then

echo $month $date "true";

elif (( ($month >= 3 && $date <= 20) & ($date<31) ))

then

echo $date $month "true";

else

echo "false";

fi

3 ) Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/coreconstruct (master)

$ nano leapyear.sh

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/coreconstruct (master)

$ ./leapyear.sh

+ read -p 'enter the year ' year

enter the year 2024

+ '[' 24 -eq 0 ']'

+ '[' 24 -eq 0 ']'

+ '[' 0 -eq 0 ']'

+ echo 'this is leap year'

this is leap year

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/coreconstruct (master)

$ ./leapyear.sh

+ read -p 'enter the year ' year

enter the year 1800

+ '[' 200 -eq 0 ']'

+ '[' 0 -eq 0 ']'

+ echo 'this is not leap year'

this is not leap year

#! /bin/bash -x

read -p "enter the year " year

if [ $(( year%400)) -eq 0 ]

then

echo "this is leap year"

elif [ $(( year%100)) -eq 0 ]

then

echo "this is not leap year"

elif [ $(( year%4)) -eq 0 ]

then

echo "this is leap year"

else

echo "this is not leap year"

fi

7) Write a program to simulate a coin flip and print out "Heads" or "Tails" accordingly.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content (master)

$ nano coin.sh

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content (master)

$ ./coin.sh

TAILS

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content (master)

$ ./coin.sh

HEADS

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content (master)

$ ./coin.sh

TAILS

#!/bin/bash

Result=$((RANDOM%2))

if [[ ${Result} -eq 0 ]]; then

echo HEADS

elif [[ ${Result} -eq 1 ]]; then

echo TAILS

fi

8) Read a single digit number and write the number in word

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./word.sh

Enter a number between 1 and 3 inclusive > 1

You entered one.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./word.sh

Enter a number between 1 and 3 inclusive > 3

You entered three.

#!/bin/bash

read -p "Enter a number between 1 and 3 inclusive > " character

if [ "$character" = "1" ]; then

echo "You entered one."

elif [ "$character" = "2" ]; then

echo "You entered two."

elif [ "$character" = "3" ]; then

echo "You entered three."

else

echo "You did not enter a number between 1 and 3."

fi

Read a single digit number and write the number in word (switch case)

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./caseword.sh

Enter a number between 1 and 3 inclusive > 1

You entered one.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./caseword.sh

Enter a number between 1 and 3 inclusive > 2

You entered two.

#!/bin/bash

read -p "Enter a number between 1 and 3 inclusive > " character

case $character in

1 ) echo "You entered one."

;;

2 ) echo "You entered two."

;;

3 ) echo "You entered three."

;;

\* ) echo "You did not enter a number between 1 and 3."

esac

9) Read a Number and Display the week day (Sunday, Monday,...)

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./caseword.sh

Enter a number between 1 and 7 inclusive > 4

You entered wednesday.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./caseword.sh

Enter a number between 1 and 7 inclusive > 1

You entered sunday.

#!/bin/bash

read -p "Enter a number between 1 and 7 inclusive > " character

case $character in

1 ) echo "You entered sunday."

;;

2 ) echo "You entered monday."

;;

3 ) echo "You entered tuesday."

;;

4 ) echo "You entered wednesday."

;;

5 ) echo "You entered thursday."

;;

6 ) echo "You entered friday."

;;

7 ) echo "You entered saturday."

;;

\* ) echo "You did not enter a number between 1 and 7."

esac

Read a Number and Display the week day (Sunday, Monday,...) (switch case)

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./word.sh

Enter a number between 1 and 7 inclusive > 5

You entered thursday.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./word.sh

Enter a number between 1 and 7 inclusive > 3

You entered tuesday.

#!/bin/bash

read -p "Enter a number between 1 and 7 inclusive > " character

if [ "$character" = "1" ]; then

echo "You entered sunday."

elif [ "$character" = "2" ]; then

echo "You entered monday."

elif [ "$character" = "3" ]; then

echo "You entered tuesday."

elif [ "$character" = "4" ]; then

echo "You entered wednesday."

elif [ "$character" = "5" ]; then

echo "You entered thursday."

elif [ "$character" = "6" ]; then

echo "You entered friday."

elif [ "$character" = "7" ]; then

echo "You entered saturday."

else

echo "You did not enter a number between 1 and 7."

fi

10)Read a Number 1, 10, 100, 1000, etc and display unit, ten, hundred,...

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./word.sh

Enter a number1

You entered unit.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./word.sh

Enter a number10

You entered ten.

#!/bin/bash

read -p "Enter a number" character

if [ "$character" = "1" ]; then

echo "You entered unit."

elif [ "$character" = "10" ]; then

echo "You entered ten."

elif [ "$character" = "100" ]; then

echo "You entered hundred."

elif [ "$character" = "1000" ]; then

echo "You entered thousand."

else

echo "You did not enter a number."

fi

Read a Number 1, 10, 100, 1000, etc and display unit, ten, hundred,...

(switch case)

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./caseword.sh

Enter a number 100

You entered hundred.

Suyash@DESKTOP-GFV8CMG MINGW64 ~/terminalcommands/linux-content/shellscript (master)

$ ./caseword.sh

Enter a number 1000

You entered thousand.

#!/bin/bash

read -p "Enter a number " character

case $character in

1 ) echo "You entered unit."

;;

10 ) echo "You entered ten."

;;

100) echo "You entered hundred."

;;

1000 ) echo "You entered thousand."

;;

\* ) echo "You did not enter a number."

esac