1. **Write a shell program to find where a given year is a leap or not**

#!/bin/bash

read -p "Enter year: " year

isLeapYear=false

if [[ $((year % 4)) = 0 ]]; then

isLeapYear=true

if [[ $((year % 100)) = 0 ]]; then

if [[ $((year % 400)) = 0 ]]; then

isLeapYear=true

else

isLeapYear=false

fi

fi

fi

if [[ $isLeapYear = true ]]; then

echo "$year is a leap year."

else

echo "$year is not a leap year."

fi

**Output**

Enter year: 2025

2025 is not a leap year.

1. **Greatest among 3 number**

#!/bin/bash

read -p "Enter number 1: " num1

read -p "Enter number 2: " num2

read -p "Enter number 3: " num3

greatest=$num1

if [[ $num2 > $greatest ]]; then

greatest=$num2

fi

if [[ $num3 > $greatest ]]; then

greatest=$num3

fi

echo "Greatest: $greatest"

**Output**

Enter number 1: 5

Enter number 2: 7

Enter number 3: 3

Greatest: 7

1. **Check whether a number is even or not.**

#!/bin/bash

read -p "Enter number: " num

if [[ $(($num % 2)) = 0 ]]; then

echo "$num is even."

else

echo "$num is odd."

fi

**Output**

Enter number: 47

47 is odd.

1. **Check uppercase, lowercase, digit using switch-case**

!/bin/bash

read -p "Enter a character: " char

case "$char" in

[A-Z])

echo "$char is uppercase letter."

;;

[a-z])

echo "$char is lowercase letter."

;;

[0-9])

echo "$char is number."

;;

\*)

echo "$char is not a alphanumeric character."

;;

esac

**Output**

Enter a character: F

F is uppercase letter.