

Algorithm & Flowchart

Ex. No.: 1

Date: 18/10/2024

Calculate Area and Perimeter

Write an Algorithm and draw a Flowchart to Calculate the area and perimeter of a square.

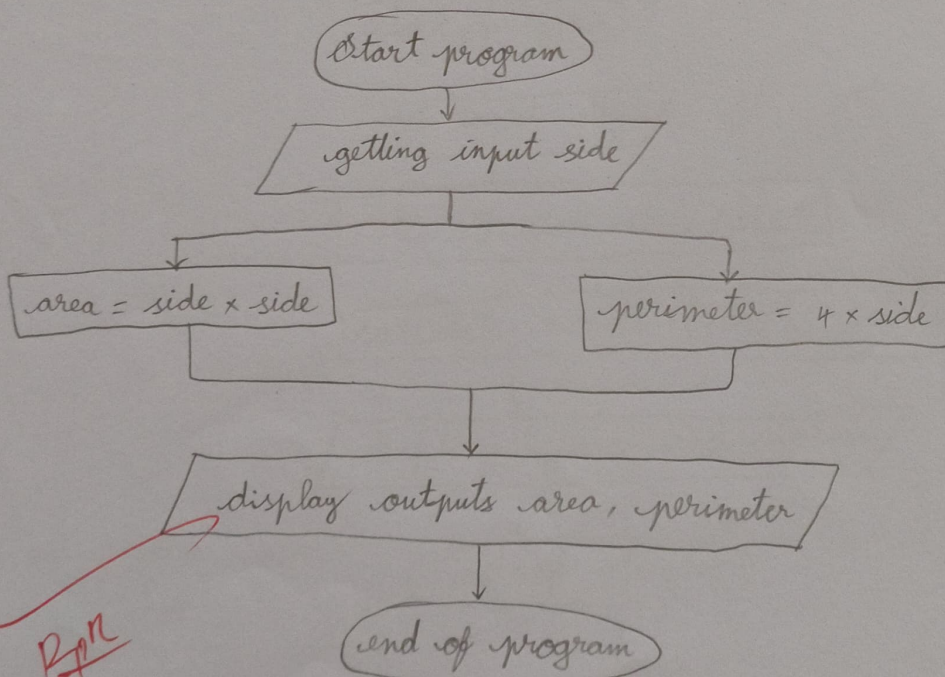
Algorithm:

Step-1 \Rightarrow get input value "side"

Step-2 \Rightarrow calculate area = side * side

Step-3 \Rightarrow calculate perimeter = 4 * side

Step-4 \Rightarrow display the outputs - area and perimeter.

Flowchart:

Sample output :-
side : 2
area : 4
perimeter : 8

Ex. No.: 2

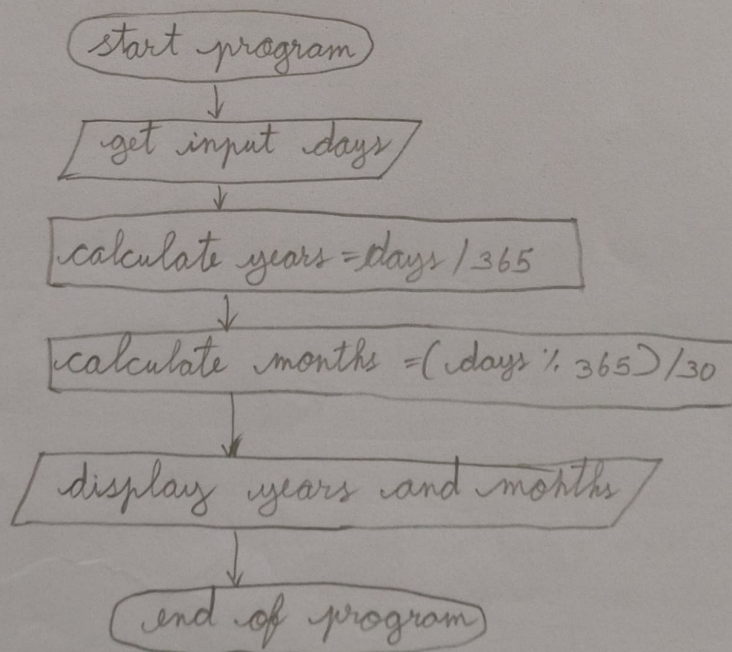
Date: 18/10/2024

Days to Year Conversion

Write an Algorithm and draw a Flowchart to convert the given days into years & months.

Algorithm:

- Step - 1 \Rightarrow get the no. of days as input value
Step - 2 \Rightarrow calculate no. of years = $\text{days} / 365$
Step - 3 \Rightarrow calculate no. of months = $(\text{days} \% 365) / 30$
Step - 4 \Rightarrow display the no. of years and no. of months as outputs.

Flowchart:

Sample output: days : 365
years : 1
months : 0

Ex. No.: 3

Date: 18/10/2024

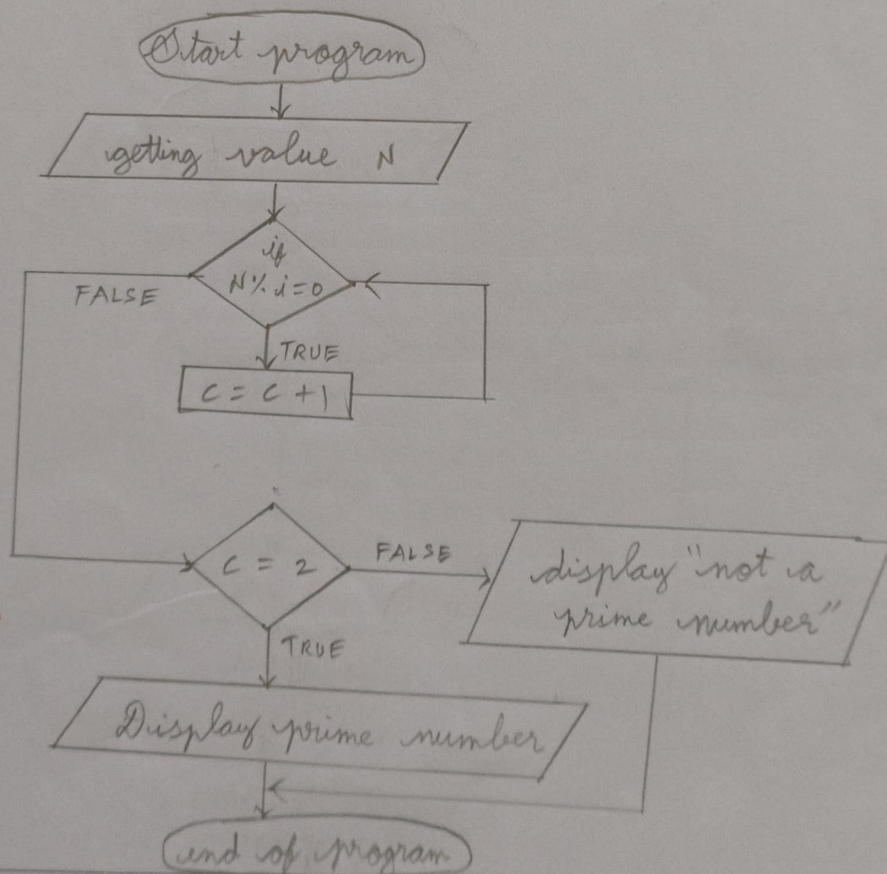
Prime Number

Write an Algorithm and draw a Flowchart to check whether the given number is Prime or not.

Algorithm:

- Step-1 \Rightarrow getting input value for "N"
 Step-2 \Rightarrow start loop from 1 to N, loop variable is c
 Step-3 \Rightarrow check $N \% c = 0$, $c = c + 1$
 Step-4 \Rightarrow If $c = 2$, display it is a prime number,
 if not, display it is not a prime number.

Flowchart:



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Ex. No.: 4

Leap Year

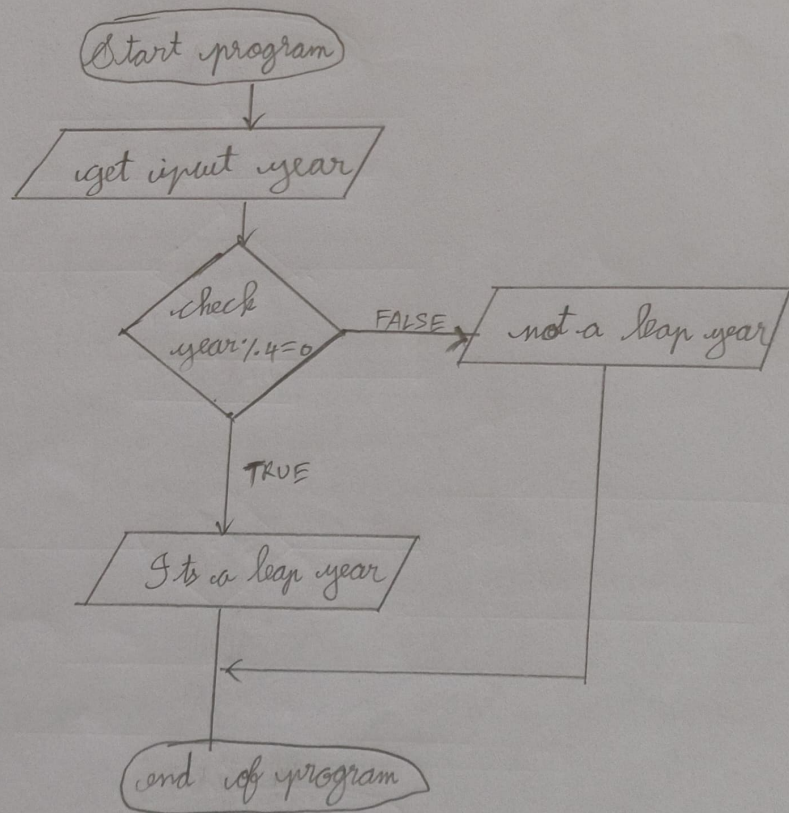
Write an Algorithm and draw a Flowchart to check whether the given year is Leap year or not.

Algorithm:

Step-1 \Rightarrow get input as year

Step-2 \Rightarrow check whether $\text{year} \% 4 = 0$

Step-3 \Rightarrow If its true, display it as leap year,
if its false, display it as not a leap year

Flowchart:

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Ex. No.: 5

Date: 18/10/2024

Palindrome Number

Write an Algorithm and draw a Flowchart to check whether the given number is palindrome number or not.

Algorithm:

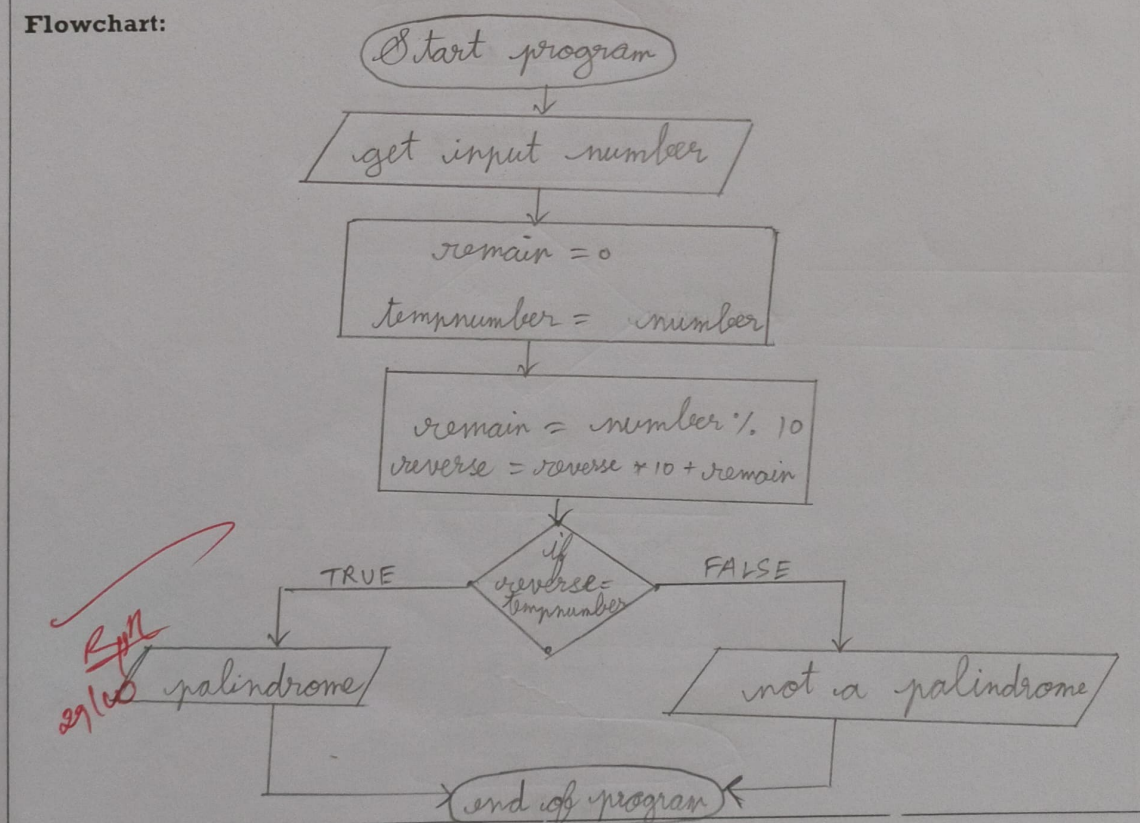
Step - 1 \Rightarrow get the input value for number

Step - 2 \Rightarrow remainder = number % 10

revnumber = reversenumber * 10 + remainder

Step - 3 \Rightarrow if number = reversenumber, then display it as palindrome, if not, it is not a palindrome.

Flowchart:



Ex. No.: 6

Date: 18/10/2024

Sum of Digits

Write an Algorithm and draw a Flowchart to calculate the sum of digits in the given number.

Algorithm:

Step-1 \Rightarrow get input value "N"

Step-2 \Rightarrow assign $\text{temp} = N$, $\text{remain} = \text{temp} \% 10$, $\text{sum} = 0$

Step-3 \Rightarrow initiate the loop and $\text{sum} = \text{sum} + \text{remain}$,
 $\text{temp} =$

Step-4 \Rightarrow when loop ends, display sum

Flowchart:

