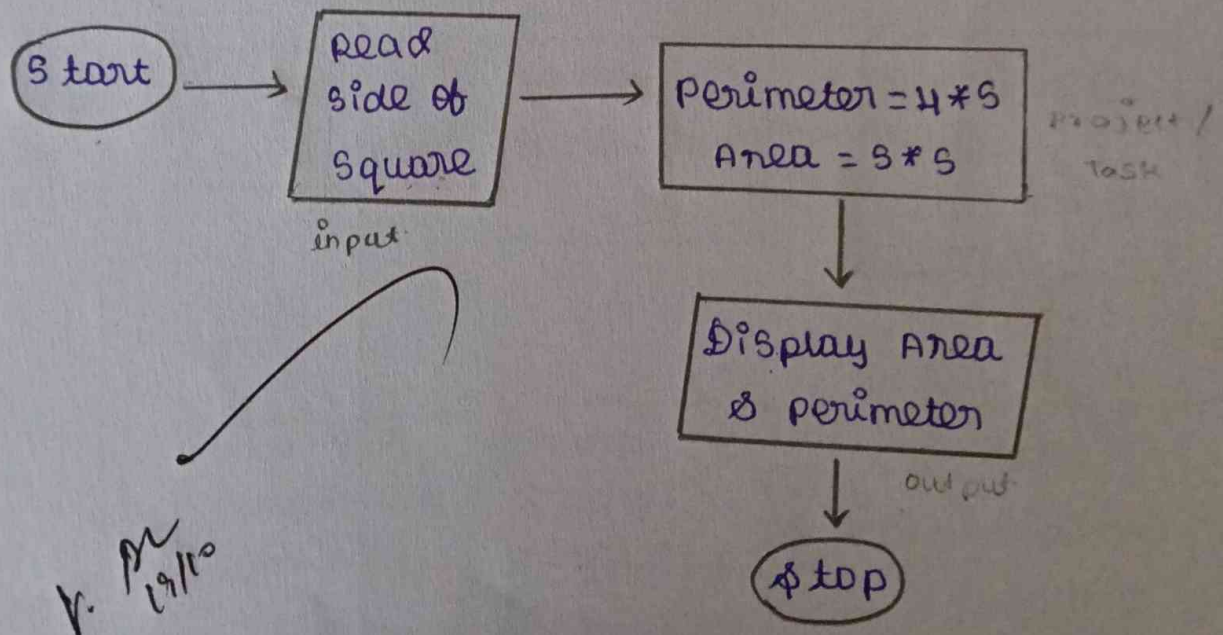## Calculate Area and Perimeter

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

Algorithm:

Step 1 : Input side of square

Step 2 : Multiply side by 4 to get the perimeter

Step 3 : Multiply side by side to get the area

Step 4 : Output area & perimeter of the square

Step 5 : Stop

Flowchart:

Ex. No.:   Date:

Days to Year Conversion

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

Algorithm:

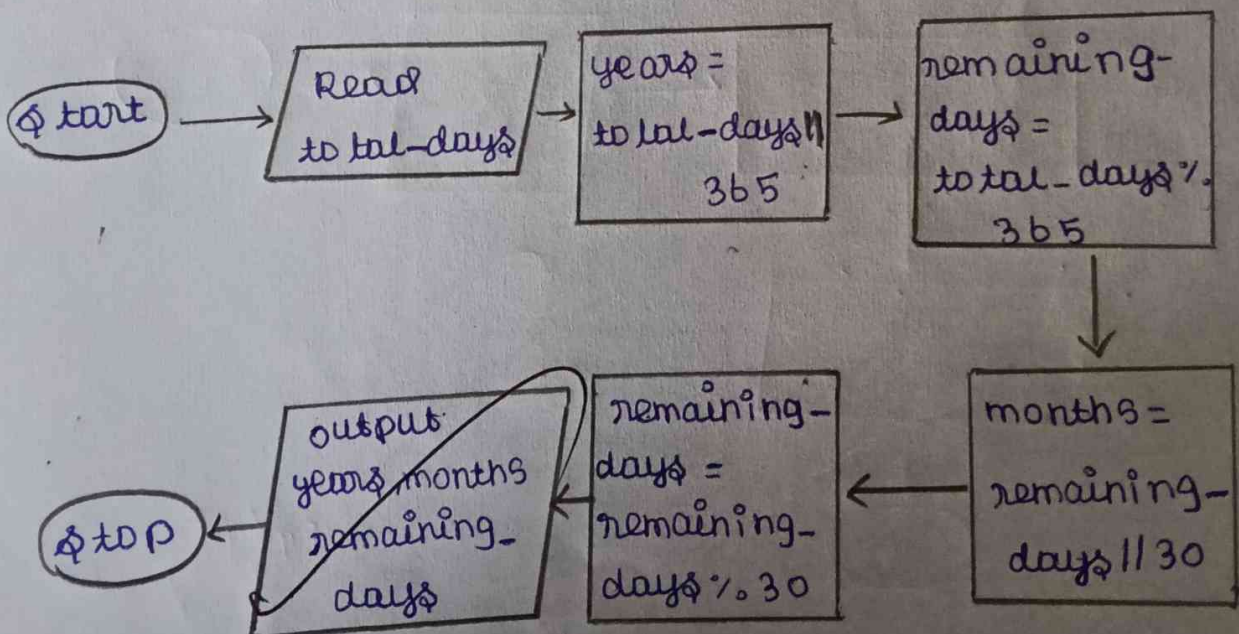Step 1 : Input the total number of days

Step 2 : Define some costants such as days in a year to 365 and days in month to 30

Step 3 : Calculate years by dividing input by 365 and remaining days by using modulus function.

Step 4 : Calculate months by dividing input by 30 and remaining days by using modulus function.

Step 5 : output years & months

Step 6 : Stop

Flowchart:

Ex. No.:   Date:

Prime Number

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

Algorithm:

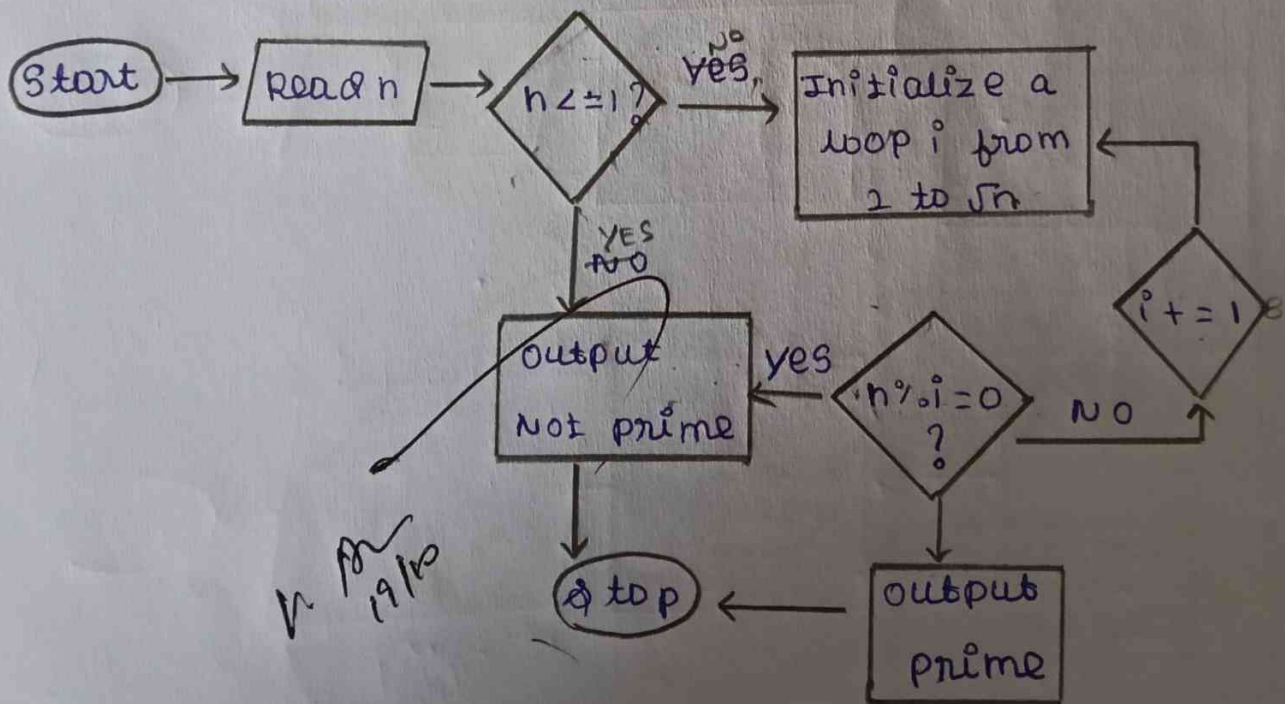Step 1: Input a number n

Step 2: Initialize i = 2

Step 3: Check whether the number is less than or equal to 1. If true, go to step 5, otherwise go to Step 4.

Step 4: Set a loop ranging from 2 to the root value of n. If n%i equals 0, go to step 5, otherwise go to step 7.

Step 5: Output Not prime

Step 6: Output prime

Step 7: Increament the value of i by 1
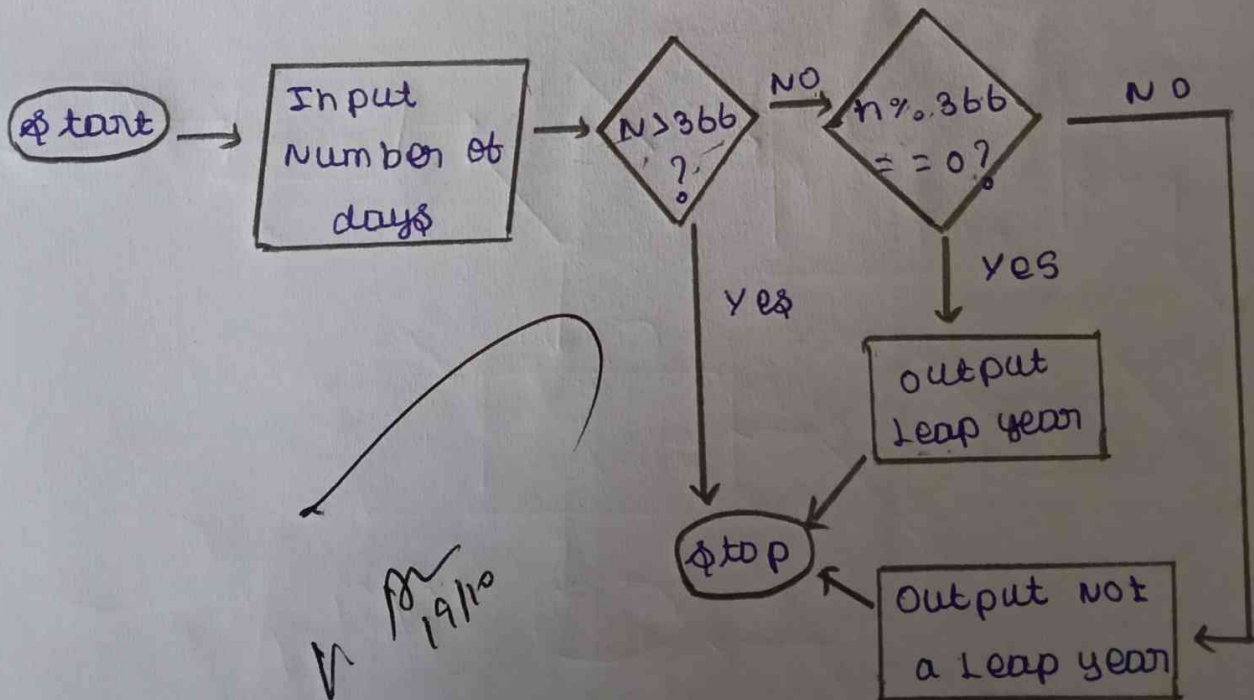
Step : Stop

Flowchart:

Leap Year

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

Algorithm:

Step 1 : Input number of days n

Step 2 : If n > 366, go to step 6

Step 3 : check whether n % 366 = 0. If True, go to step 4 otherwise go to step 5

Step 4 : Output "Leap year"

Step 5 : Output "Not a Leap year"

Step 6 : Stop

Flowchart:

Start → Input Number of days → N > 366 ? → NO → n % 366 == 0 ? → NO → Output Not a Leap year → Stop

N > 366 ? → YES → Stop

n % 366 == 0 ? → YES → output Leap year → Stop

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Palindrome Number

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

Algorithm:

Step 1: Input a number n

Step 2: Initialize reversed_num to 0 and original num to n

Step 3: If n>0, go to Step 4. otherwise go to Step 6

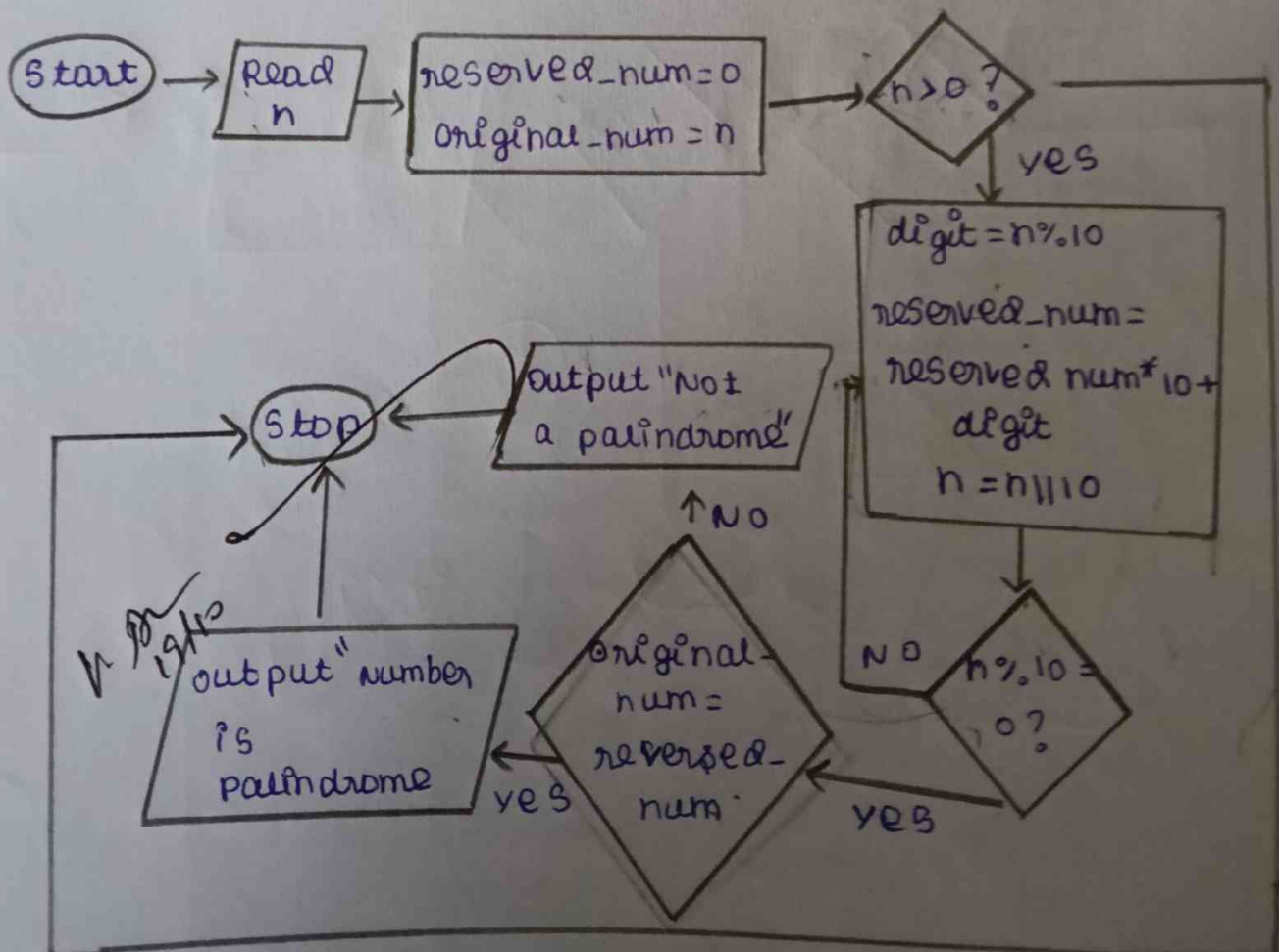Step 4: Set digit = n%10 and reversed_num = reversed_nm * 10 + digit. Then update n = n//10. Repeat the process untill n%10 = 0

Step 5: Check whether original-num == reversed-num. If true, Print "Number is palindrome" otherwise print "Number is not Palindrome".

Step 6: Stop

Flowchart:

Sum of Digits

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

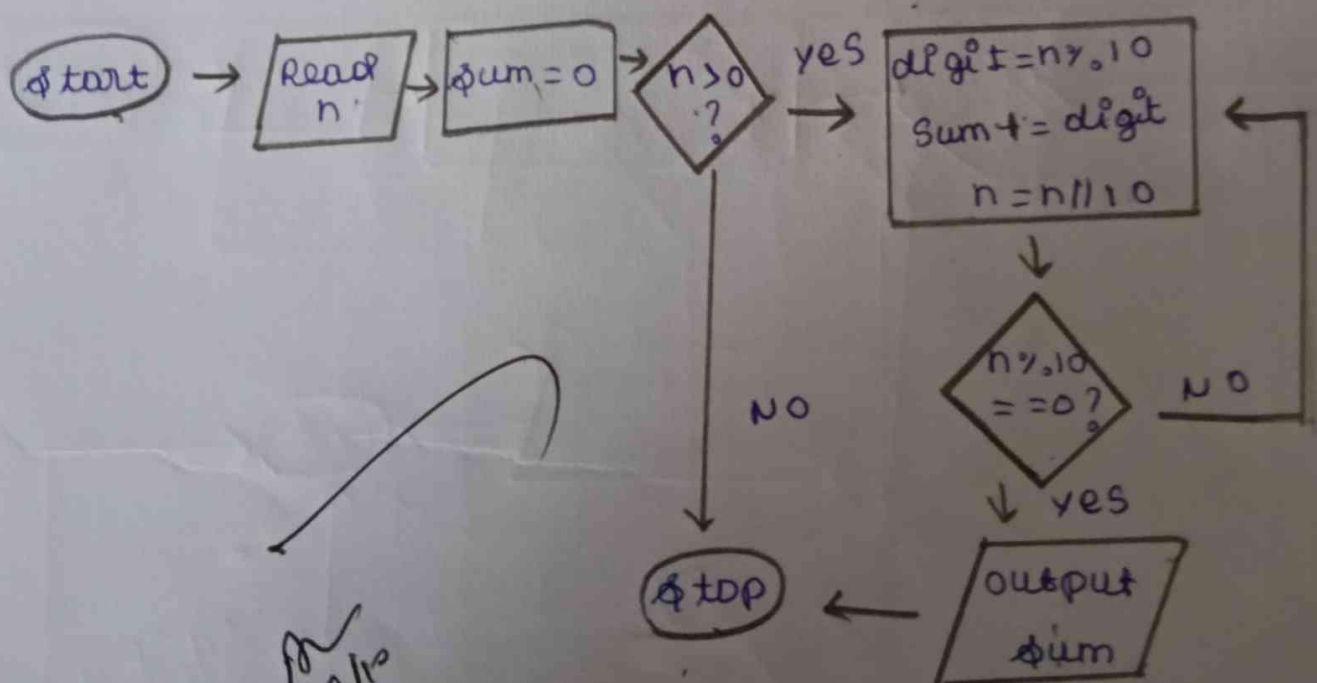**Algorithm:**

Step 1 : Read a number n

Step 2 : Initialize Sum = 0

Step 3 : Check whether n>0. If true go to step 4 otherwise go to step 6

Step 4 : Set digit = n%10. Update Sum = Sum + digit. Update n = n//10. Repeat the process until n%10 == 0

Step 5 : Output Sum

Step 6 : Stop

Flowchart: