Ex. No.: 1 **Date:** 27/09/24

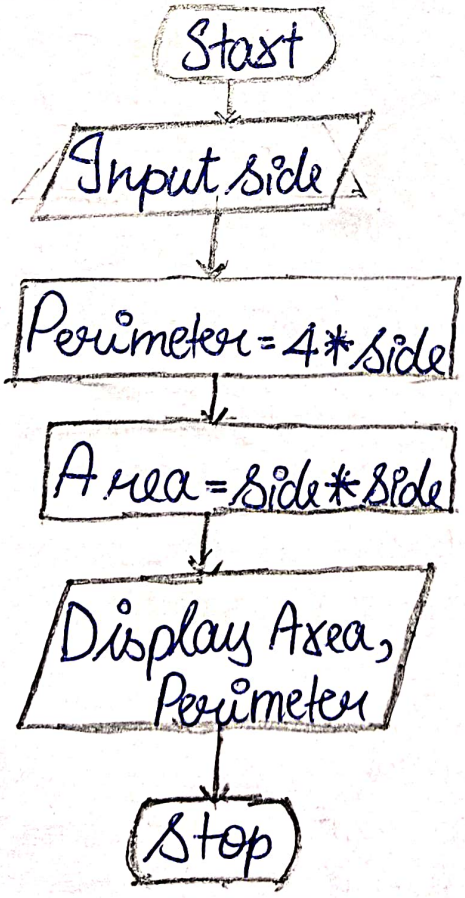
Calculate Area and Perimeter

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

Algorithm:

Step 1: Start
Step 2: Get the value for side
Step 3: Area of square = side * side
Step 4: Perimeter of square = 4 * side
Step 5: Display Area and Perimeter
Step 6: Stop.

Flowchart:



Ex. No.: 02 **Date:** 27/09/24

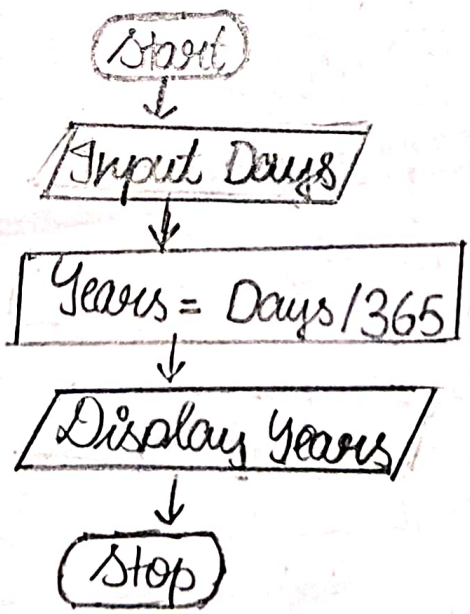
Days to Year Conversion

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

Algorithm:

Step 1: Start
Step 2: Get the number of days to be converted as Days.
Step 3: Years = $\frac{Days}{365}$ formula to convert days to years
Step 4: Display Years
Step 5: Stop.

Flowchart:



Ex. No.: 03 **Date:** 3/10/24

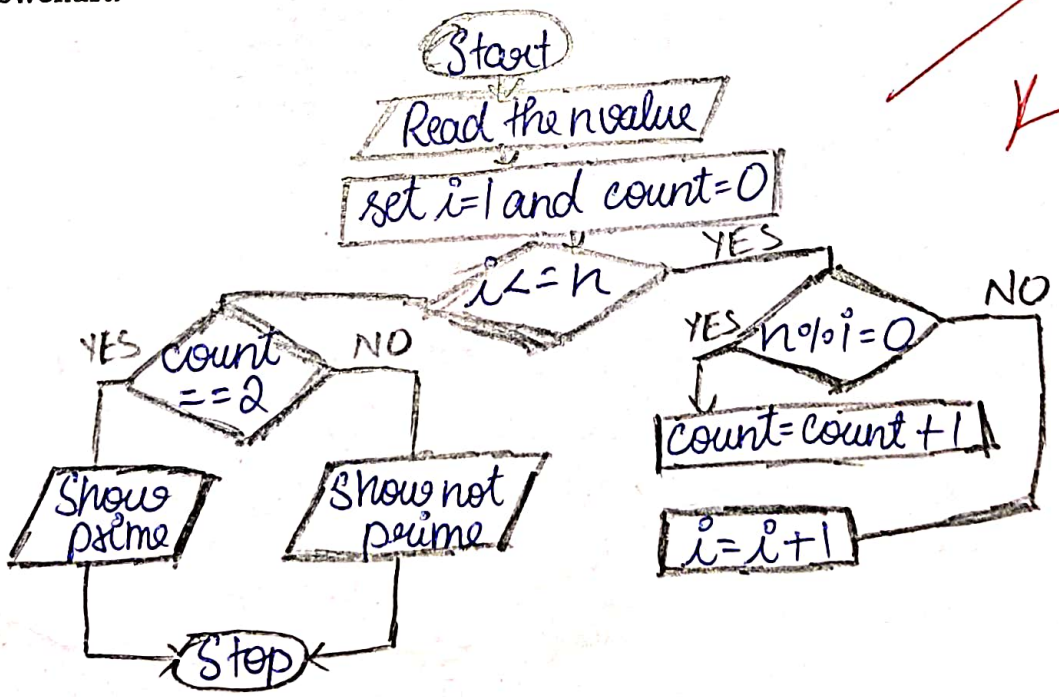
Prime Number

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

Algorithm:

Step-1: Start
Step-2: Read the value of n
Step-3: Set i=1 and count=0
Step-4: If i<=n, true go to Step-5, else go to step8
Step5: Check the condition n%i==0 if true then go to Step6, else go to Step 7.
Step6: Set count=count+1
Step 7: i=i+1, then go to step4
Step8: Check the count, if it is=2, display prime else display not a prime
Step9: Stop

Flowchart:



Ex. No.: 04 Date: 3/10/24

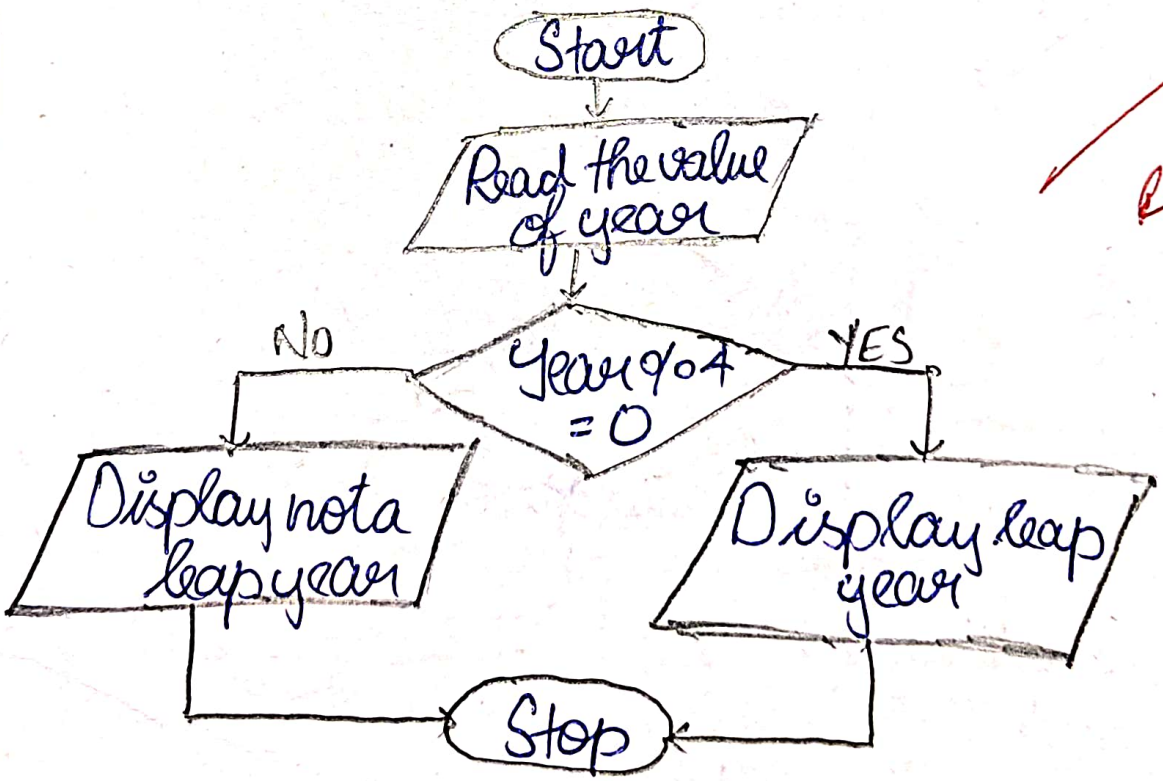
Leap Year

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

Algorithm:

Step 1: Start
Step 2: Get the number of days to be converted as Days.
Step 3: If (year%4 = 0 AND year%100 != 0)
Step 4: Display leap year
Step 5: Else display not a leap year
Step 6: Stop

Flowchart:



Date: 3/10/24

Ex. No.: 05

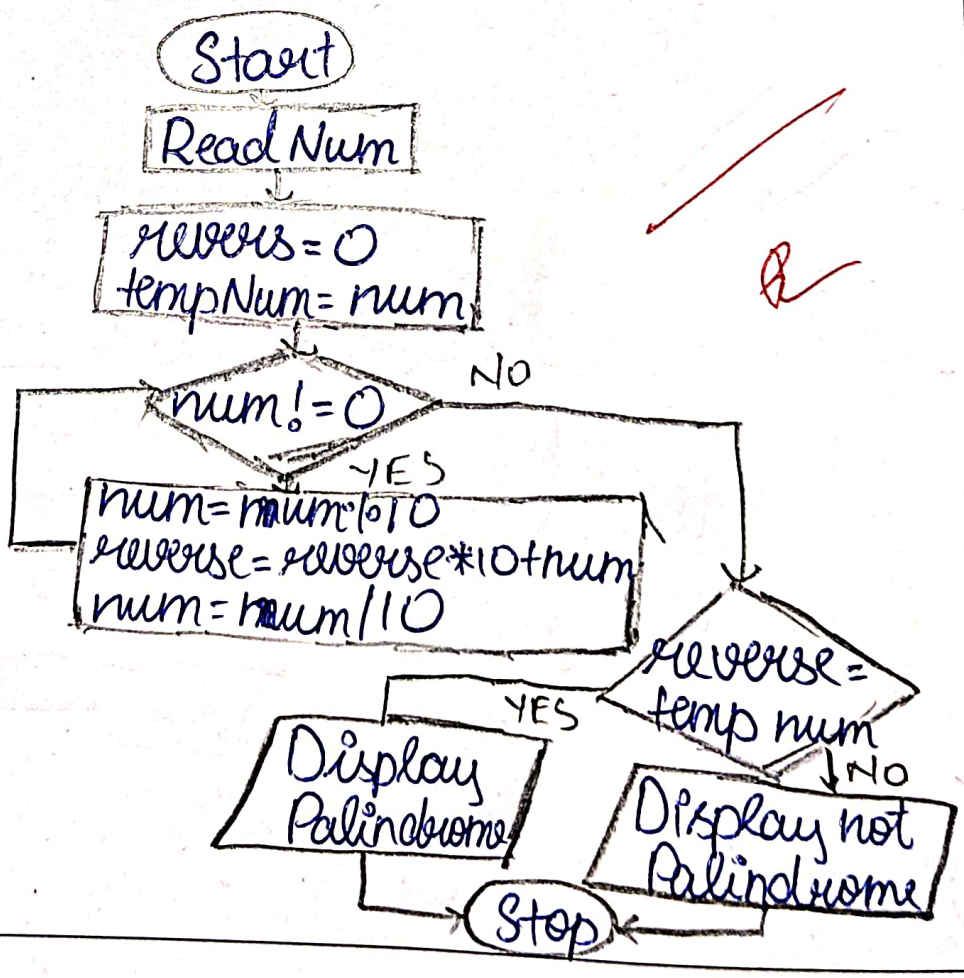
Palindrome Number

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

Algorithm:

Step-1: Start
Step-2: Read the input number from the user
Step-3: Declare & initialize the variable reverse & assign input to the temp variable tempNum = num.
Step-4: Check if reverse == tempNum using looping statements
Step-6: If its true then display the number is a palindrome
Step-7: If not display the number is not a palindrome
Step-8: Stop

Flowchart:



Ex. No.: 06

Date: 3/10/24

Sum of Digits

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

Algorithm:

Step 1: Start
Step 2: Get the number
Step 3: Construct a variable to hold the total & initialise it to 0
Step 4: Repeat step-2 & 3 until the result is not 0
Step 5: Divide the no by 10
Step 6: Use the '/' operator to divide the integer by 10 to eliminate the last digit on the right.
Step 7: Display the total
Step 8: Stop.

Flowchart: