Programming Using C

Week-0

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Ex. No.: 1 **Date:** 25/10/24

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 : Read length

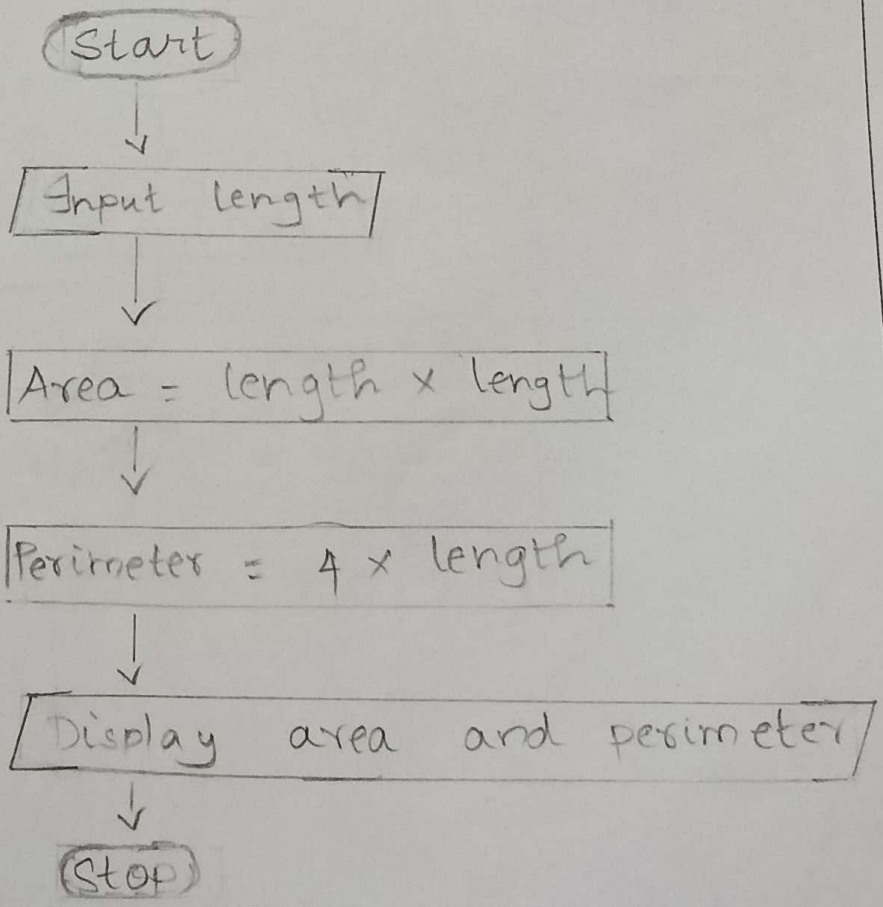
Step 3 : Calculate
Area = Length x ~~breadth~~ length

Step 4 : Calculate
Perimeter = 4 x length

Step 5 : Display the "area and perimeter"

Step 6 : Stop.

Flowchart:



Ex. No.: 2

Date: 25/10/24

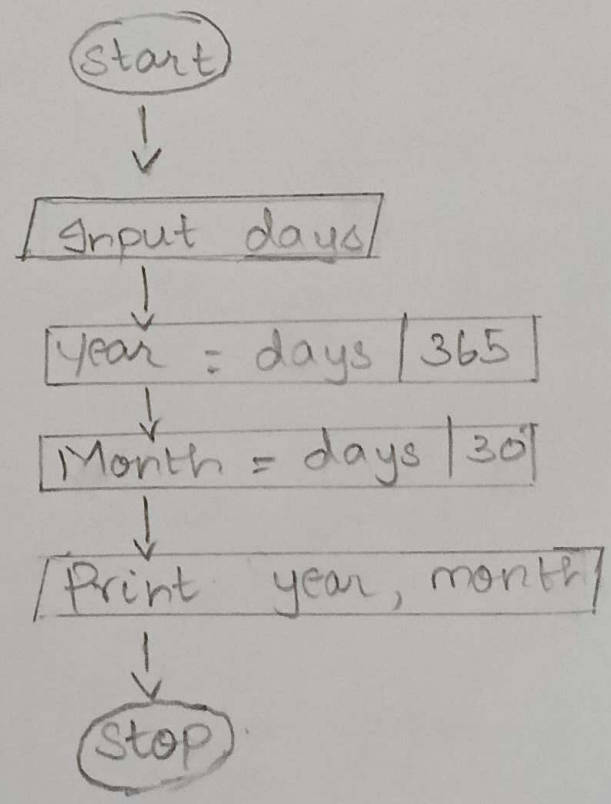
Days to Year Conversion

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

Algorithm:

Step 1: Start
Step 2: Get Days
Step 3: Calculate
year = days / 365
Step 4: Calculate
month = days / 30
Step 5: Print "year, month"
Step 6: Stop.

Flowchart:



Ex. No.: 3

Date: 25/10/24

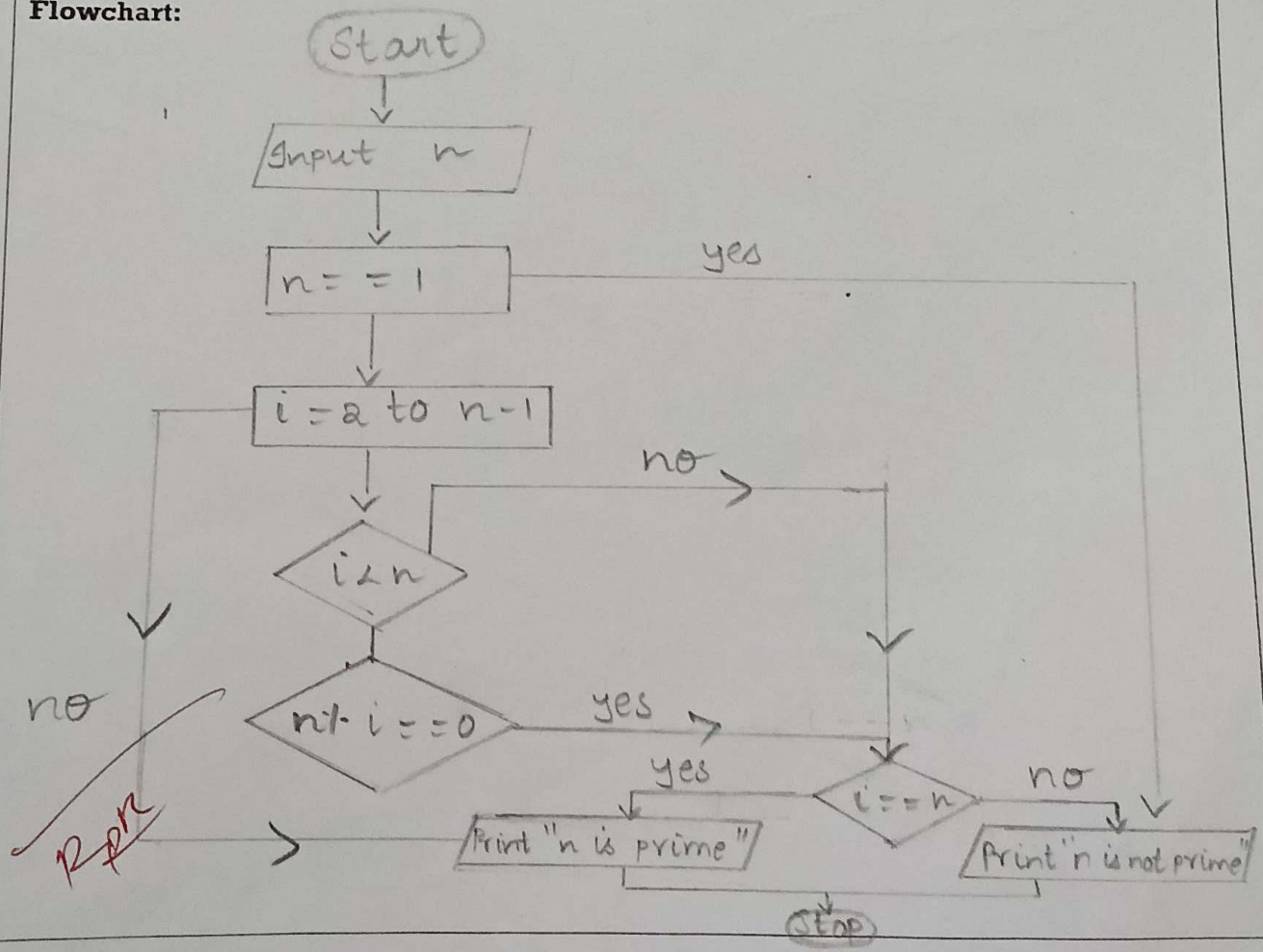
Prime Number

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

Algorithm:

Step 1 : Start
Step 2 : Read n.
Step 3 : Factorial = 1
Step 4 : If n==1 then "print n is not a prime no."
Step 5 : For i=2 to n-1
Step 6 : if n%.i==0 then f=1 and break
else i=2 to n-1
Step 7 : if f==1 then print "n is not prime number"
else print "n is prime number"
Step 8 : Stop.

Flowchart:



Ex. No.: 4 **Date:** 25/10/24

Leap Year

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

Algorithm:

Step 1: Start

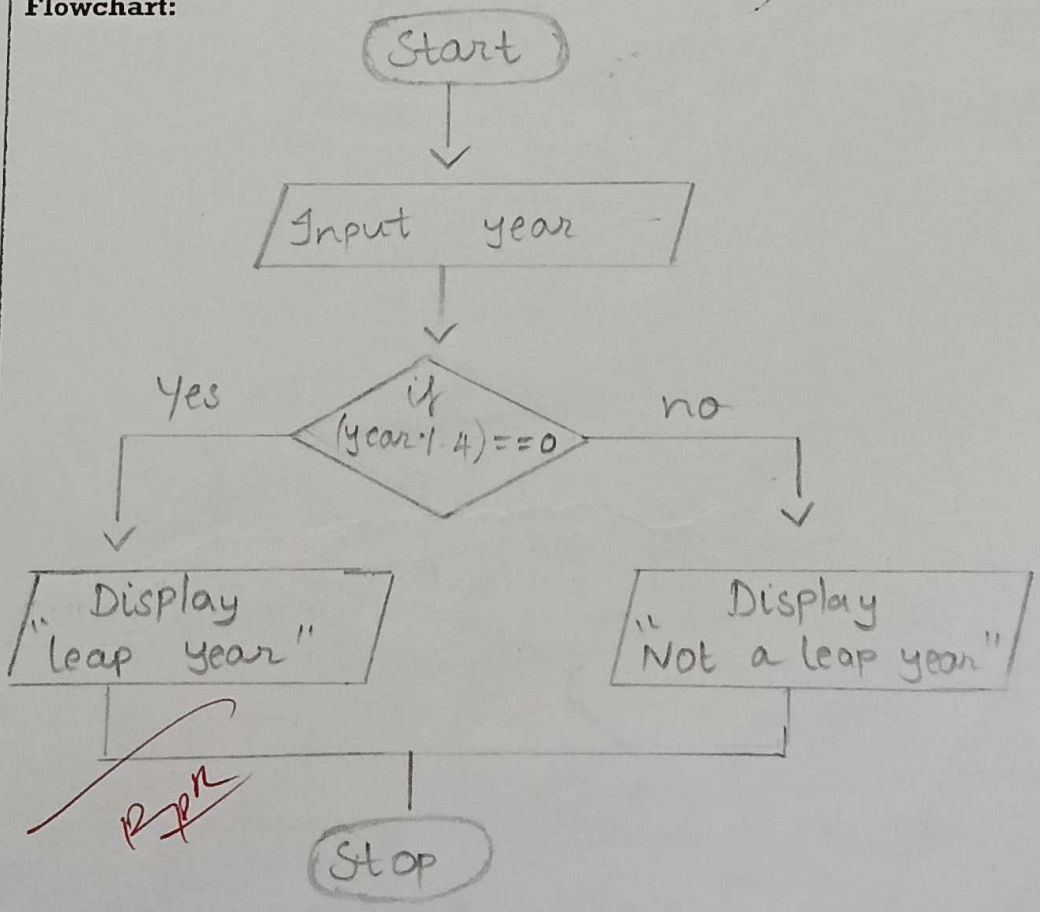
Step 2: Read year

Step 3: Calculate rem = year % 4

Step 4: if (rem == 0) then
print "leap year"
else
print "Not a leap year"

Step : Stop.

Flowchart:



Ex. No.: 5 **Date:** 25/10/24

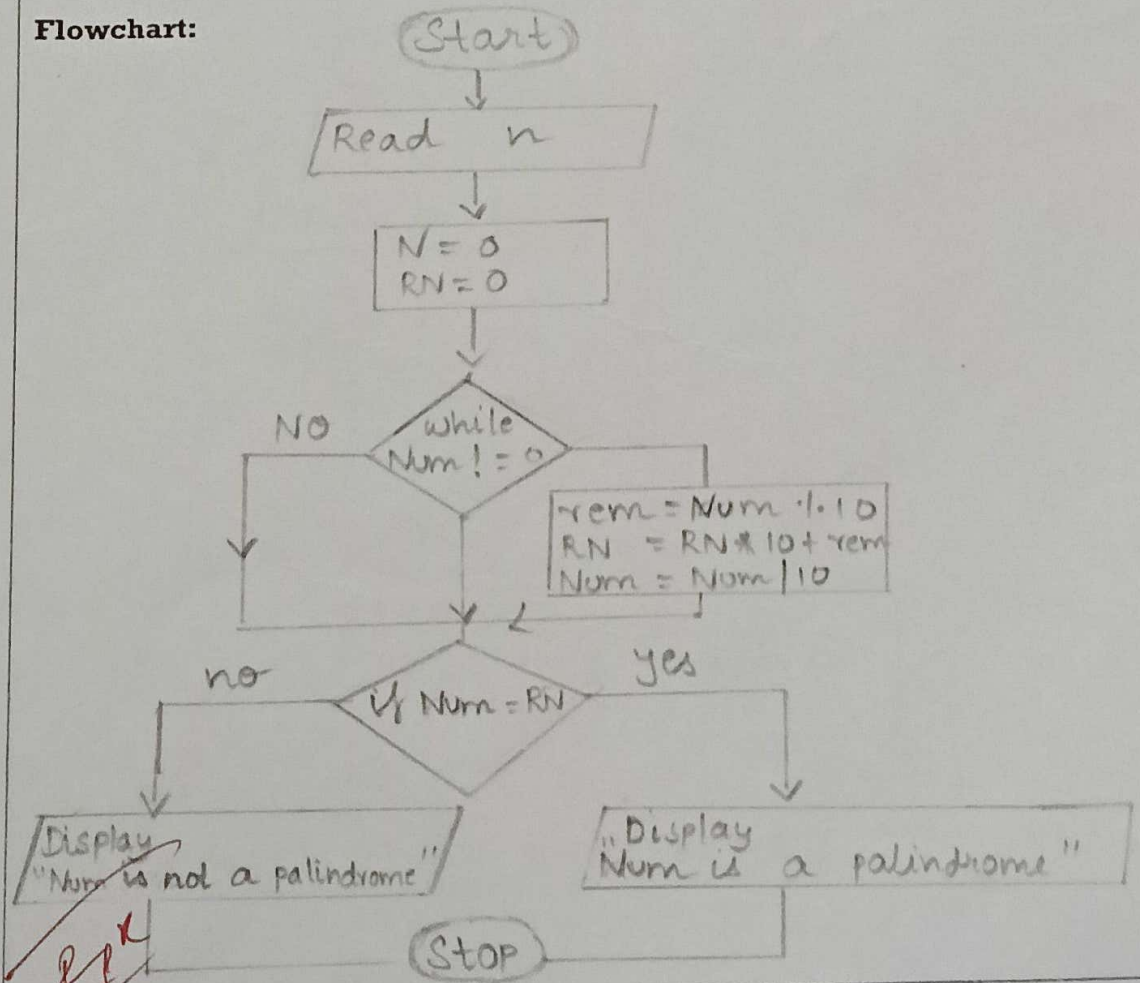
Palindrome Number

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 n
Step 3 : Reversed integer is in reversed variable using while (n != 0)
Step 4 : Calculate rem = n % 10;
Step 5 : if (orginal == reversed) display the "Num is palindrome". else display the "num is not a palindrome"
Step 6 : Stop.

Flowchart:



Ex. No.: 6 **Date:** 25/10/24

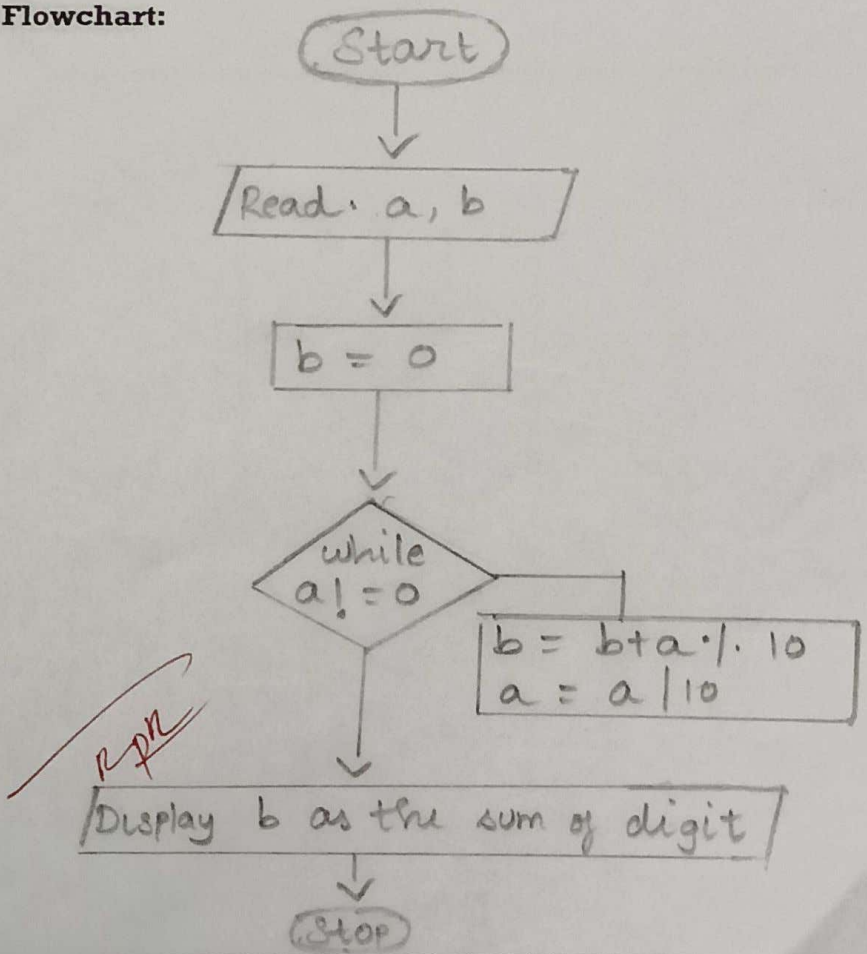
Sum of Digits

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

Algorithm:

Step 1: Start.
Step 2: Read a as a user input, b as 0
Step 3: Use while loop and a!=0
Step 4: Calculate sum b = b+a%10 and decrease a = a/10
Step 5: Display b as sum of digit
Step 6: Stop.

Flowchart:



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