240801136
Jeyamalini JN

GE23131 - Programming Using C

Ex. No.: 06 **Date:** 28/9/24

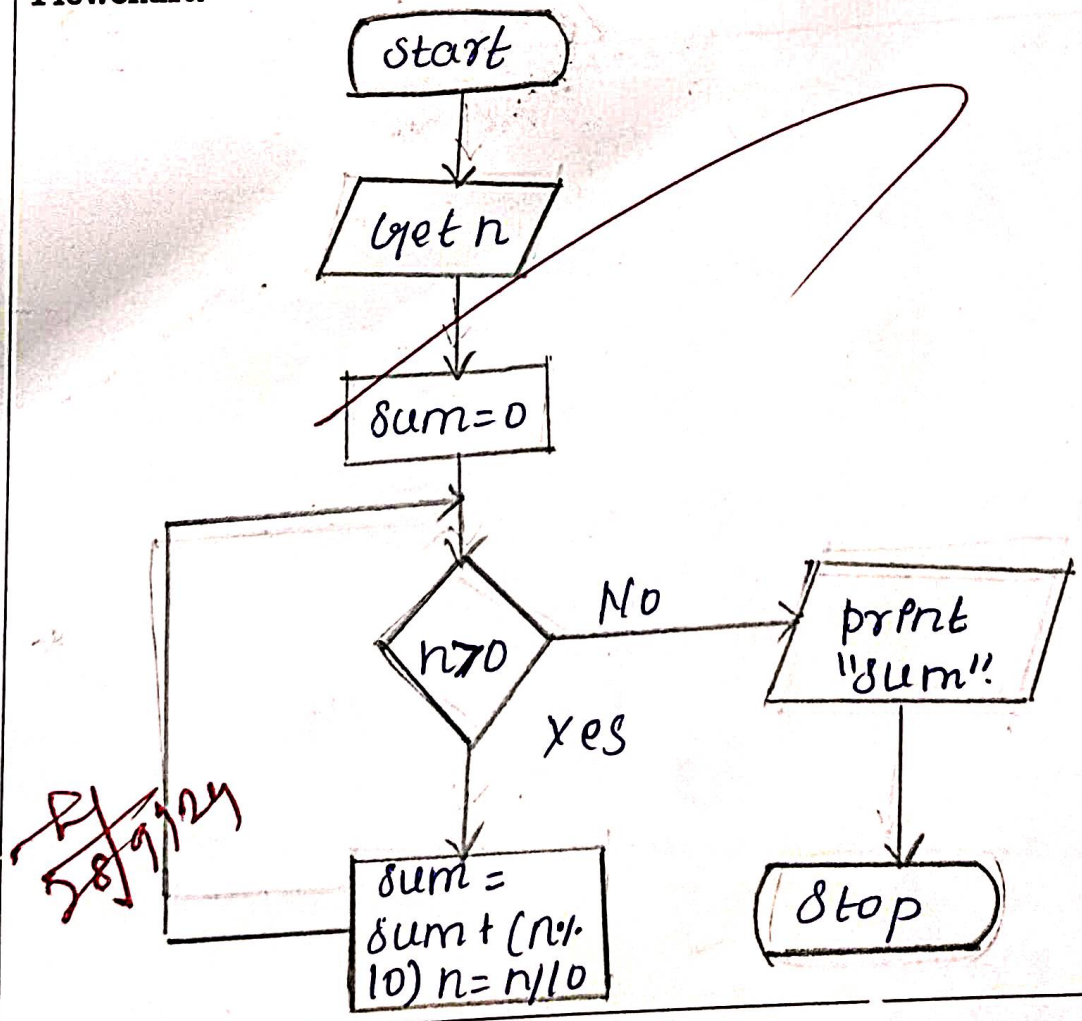
Sum of Digits

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

Algorithm:

Step 1: Start
Step 2: Get n from the user
Step 3: Initialize sum is equal to zero
Step 4: check n>0 , go to step 5
Step 5: sum = sum + (n%10).
Step 6: n = n/10 , go to step 4.
Step 7: print, "sum"
Step 8: Stop.

Flowchart:



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Ex. No.: 5 **Date:** 28/9/24

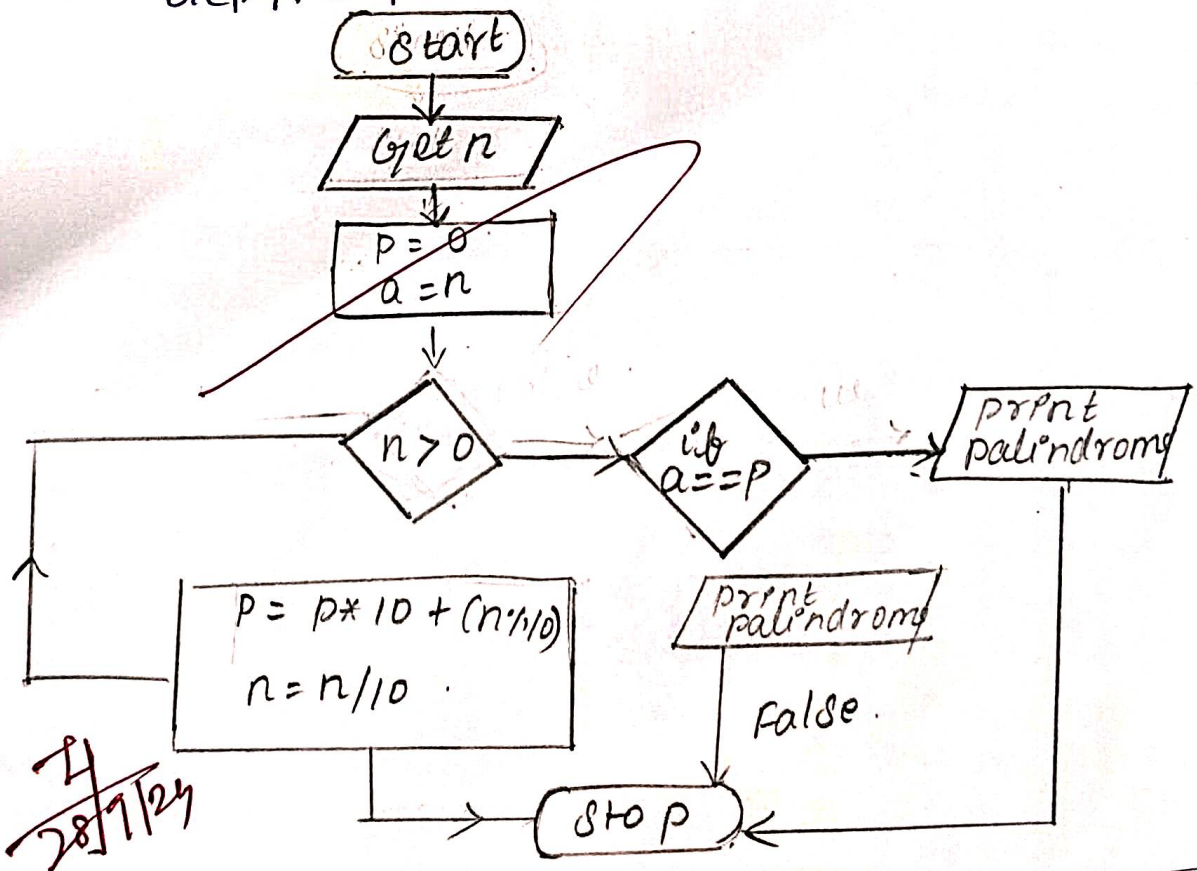
Palindrome Number

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

Algorithm:

Step 1: Start
Step 2: Get n from user
Step 3: Step p=0, a=n
Step4: check whether n>0, go to step 5 else go to step 7
Step 5: p=(p*10)+(n%10)
Step 6: n=n/10, go to step4.
Step 7: check whether a==p, true. go to step 8 else go to step9.
Step 8: print palindrome, not palindrome.
step9: stop.

Flowchart:



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Ex. No.: 1

Date: 28/9/2024

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 year from the user.

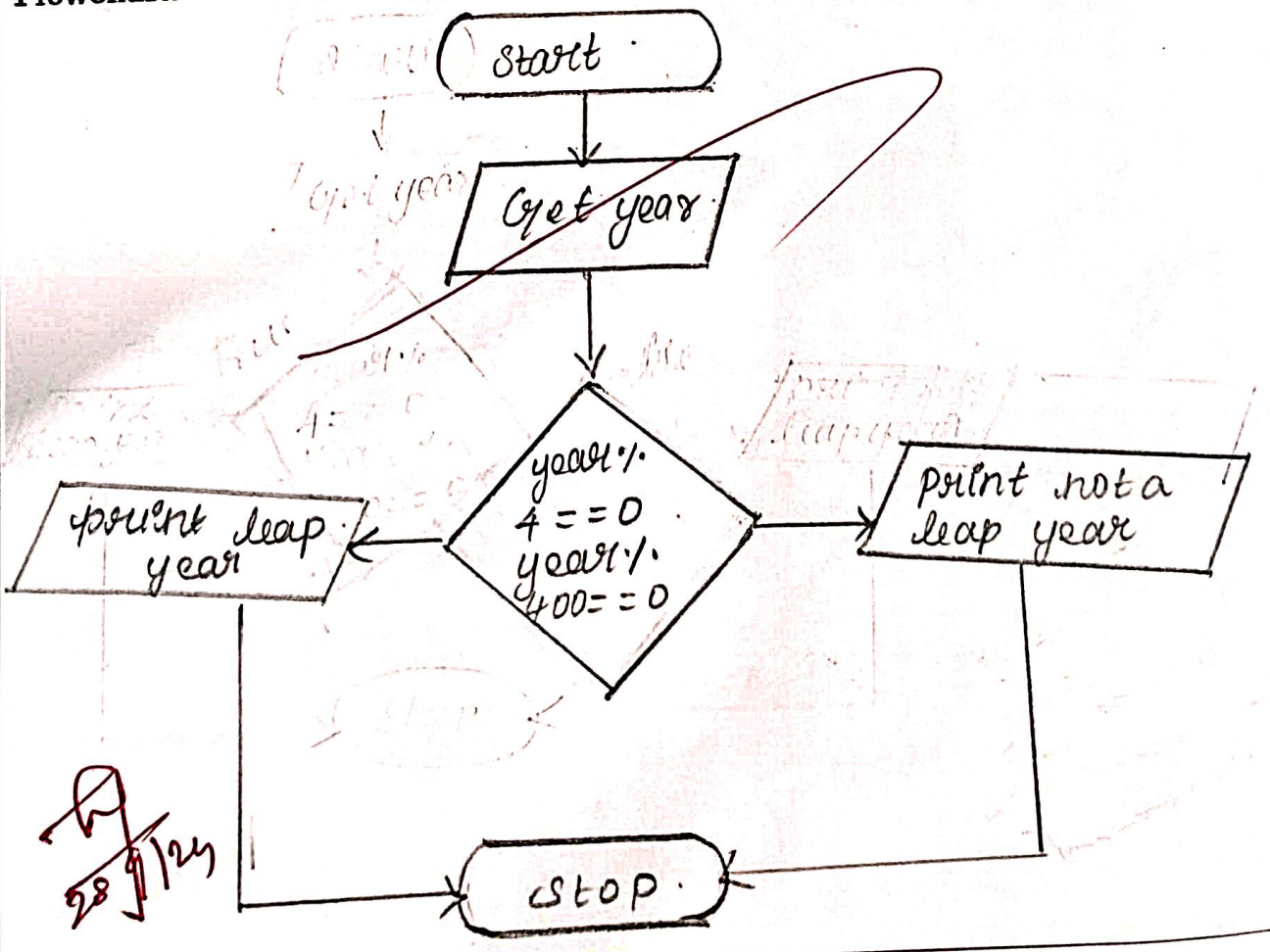
Step 3: Check whether year%4==0 and y%100!=0 or y%400==0. If it is true then goto Step 4 else go to Step 5.

Step 4: print "leap year"

Step 5: print "not a leap year"

Step 6: Stop.

Flowchart:



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Ex. No.: 3 **Date:** 26/9/2024

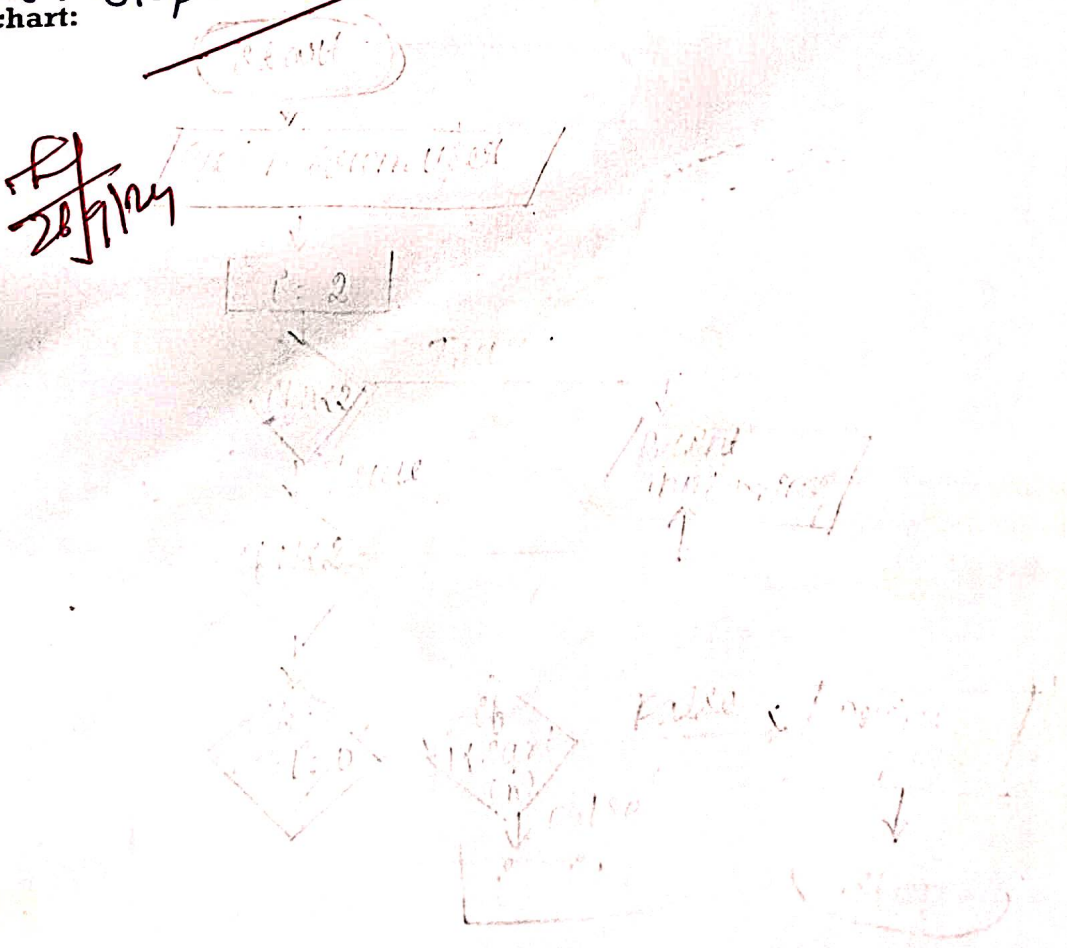
Prime Number

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

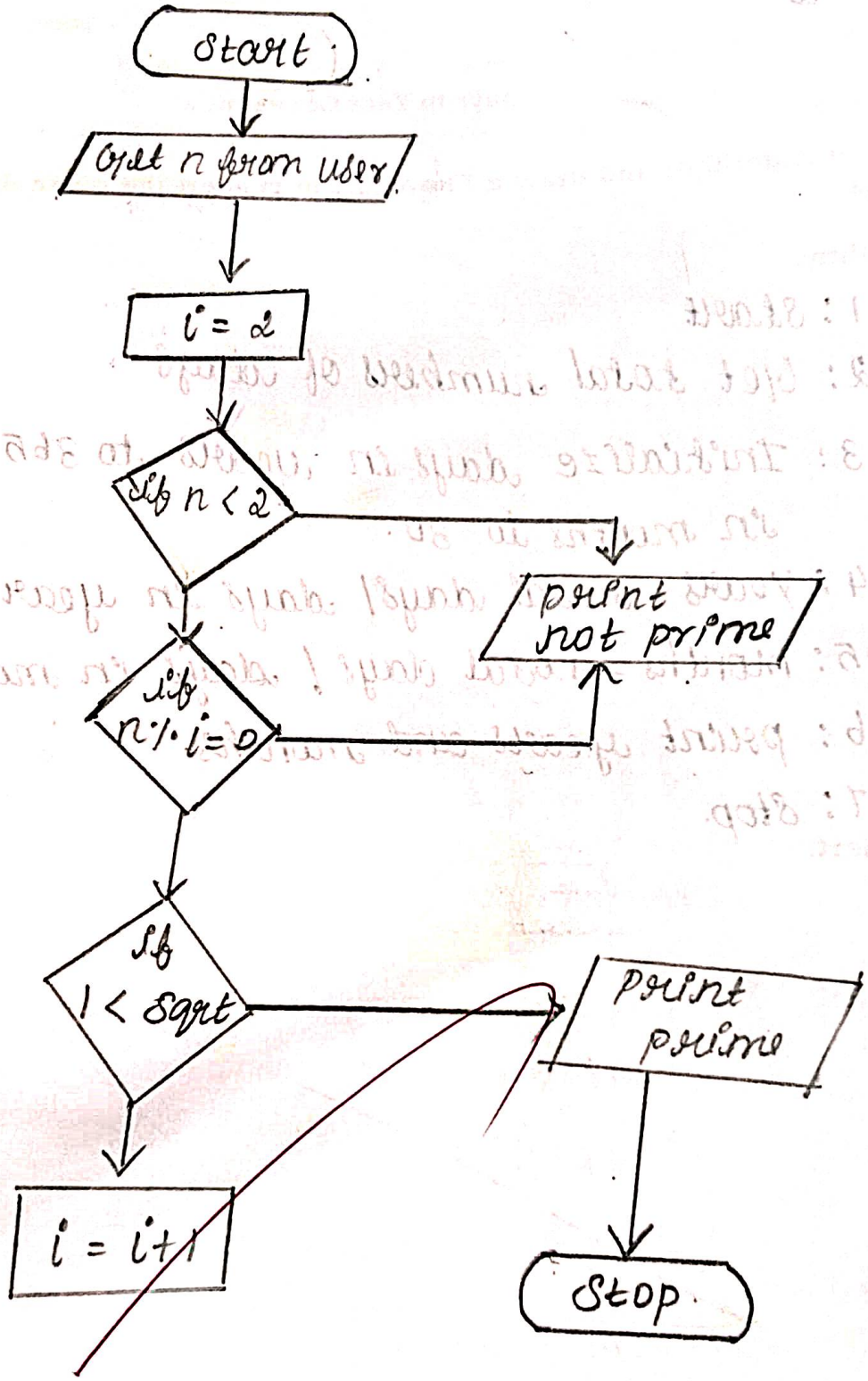
Algorithm:

Step 1: Start
Step 2: Get n from user
Step 3: Set i = 2
Step 4: check if n < 2 then go to Step 5 else go to Step 6.
Step 5: print "not prime" and go to Step 8
Step 6: If n % 2 == 0 print "not prime" else "print prime"
Step 7: Repeat Step 6 and 7 until i < = Sqrt (n)
Step 8: Stop.

Flowchart:



Flow chart:


start
Get n from user
i = 2
If n < 2
print not prime
If n % i = 0
If i < sqrt
print prime
i = i+1
Stop

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Ex. No.: 2 **Date:** 26/9/2024

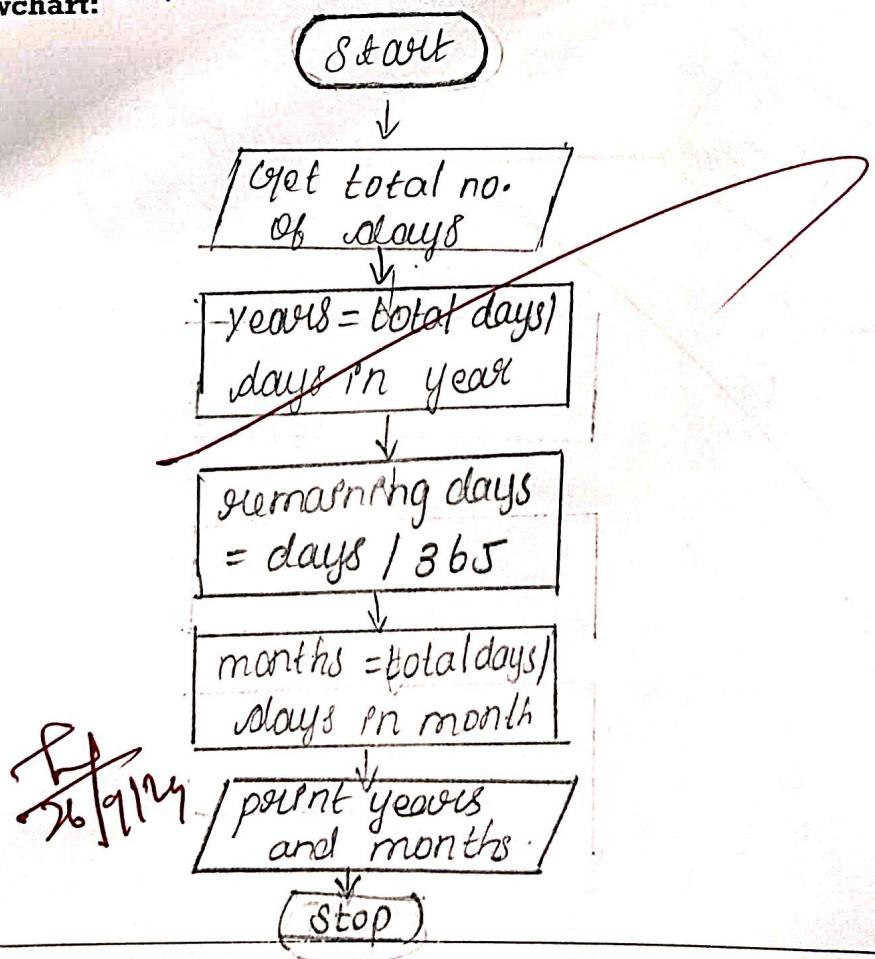
Days to Year Conversion

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

Algorithm:

Step 1 : Start
Step 2 : Get total numbers of days
Step 3 : Initialize days in years to 365 and days in months to 30.
Step 4 : years = total days / days in year
Step 5 : months = total days / days in month.
Step 6 : print years and months
Step 7 : Stop.

Flowchart:



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Ex. No.: 1

Date: 26/9/2024

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 "a" from the user

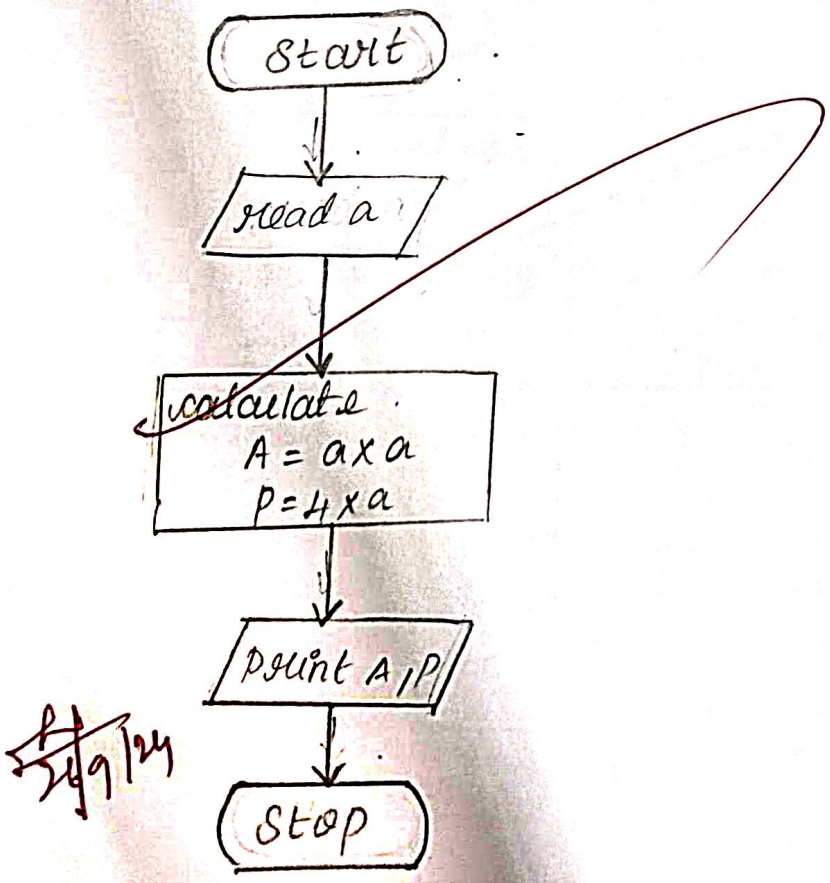
Step 3: Initialize Area and perimeter of square is zero

Step 4: Calculate area as a x a and perimeter as 4 x a and store in A and P

Step 5: print area and perimeter.

Step 6: Stop.

Flowchart:



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