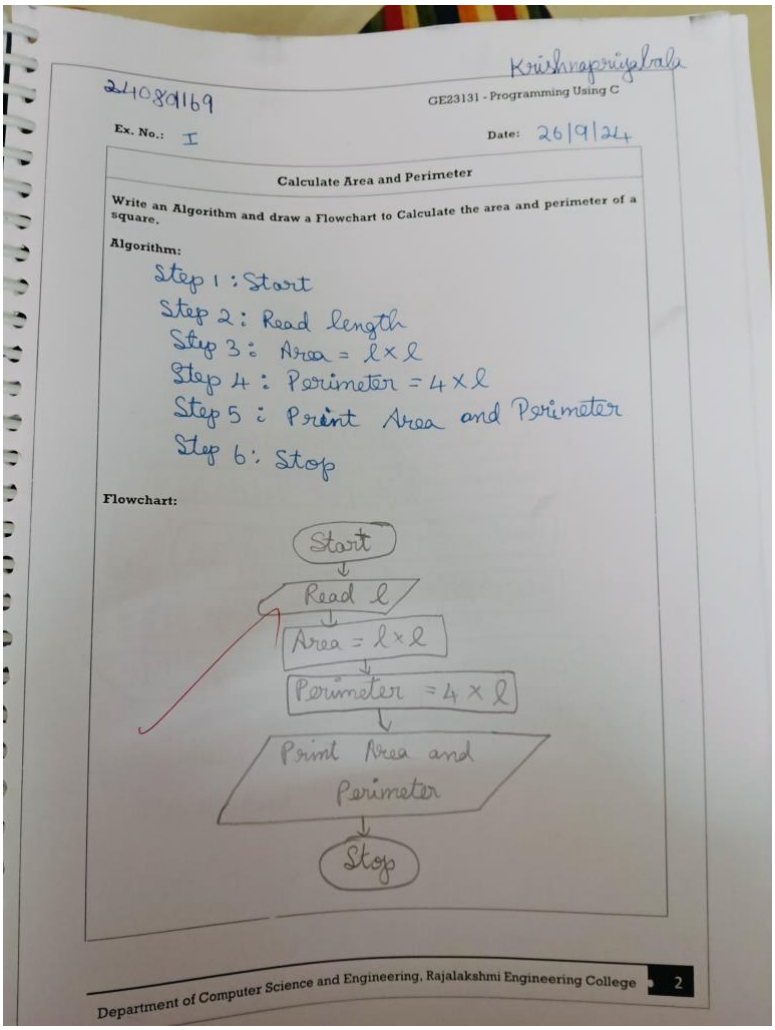
Week 0

Name : Krishnapriyabala JS

Roll no: 240801169



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GE23131 - Programming Using C

Ex. No.: I Date: 26/9/24

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 : Area = $l \times l$
Step 4 : Perimeter = $4 \times l$
Step 5 : Print Area and Perimeter
Step 6 : Stop

Flowchart:

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Ex. No.: II

Date: 26/9/24

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 : Input No of days

Step 3 : years = days / 365

Step 4 : Calculate the remaining days after calculating the years

Step 5 : calculate the number of months.

months = remaining days / 30

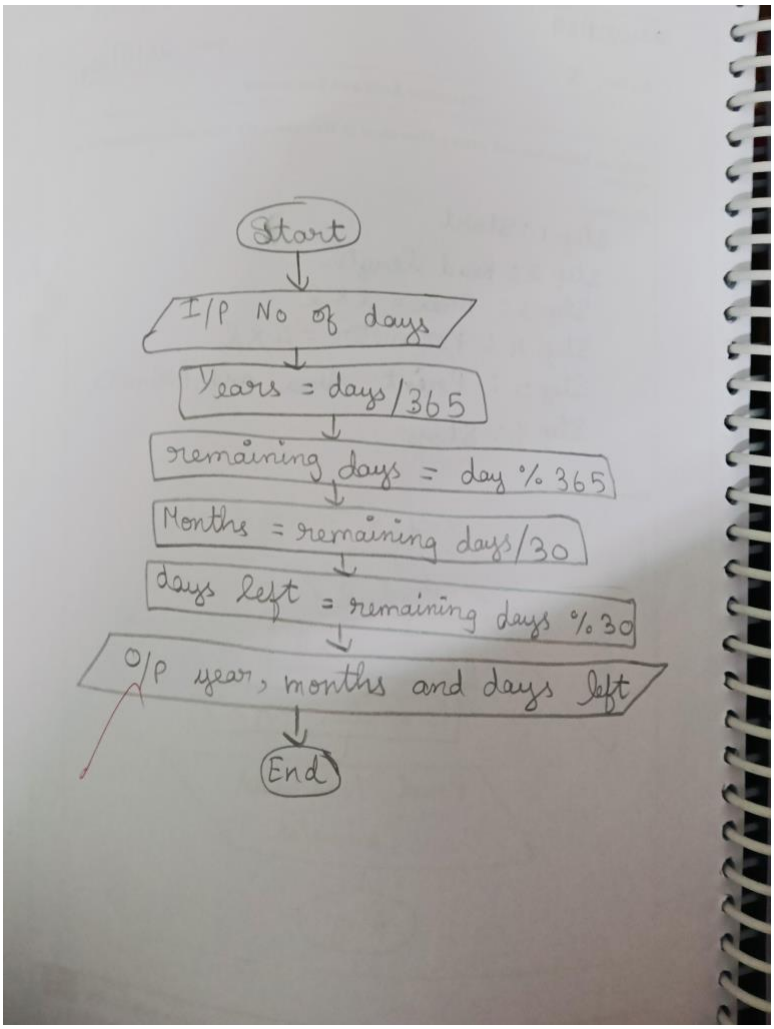
Step 6 : calculate the remaining days after calculating months

days left = ramaining days % 30

Step 7 : Output the year, months and days left.

Step 8 : End

Flowchart:


Start
I/P No of days
Years = days/365
remaining days = day % 365
Months = remaining days/30
days left = remaining days % 30
O/P year, months and days left
End

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Ex. No.: 11

Date: 26/9/24

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: Input the no

Step 3: if i = 2 and i < n, go to step 7

Step 4: i %. 2 == 0, go to step 7

Step 5: i == n

Step 6: i = i + 1, goto step 3

Step 7: if the i == n

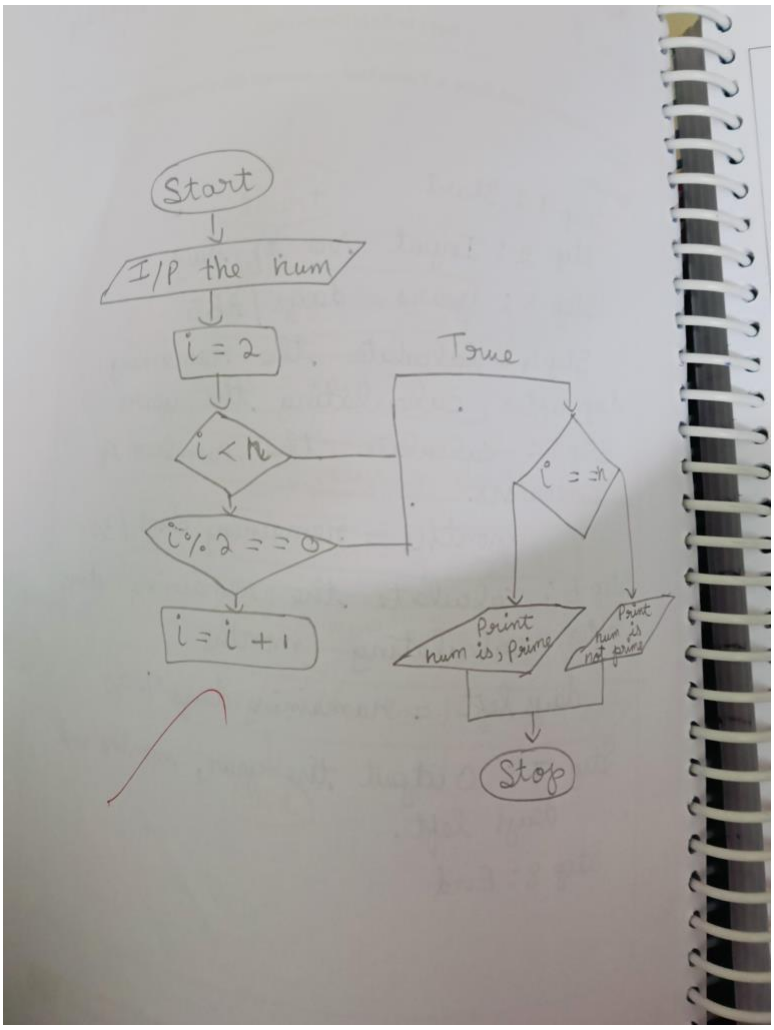
print "Num is prime"

else

Print "Num is not prime"

Step 8: End

Flowchart:


Start
I/P the num
i = 2
i < n
i % 2 == 0
i = i + 1
True
i == n
Print num is prime
Print num is not prime
Stop

24080 1169 Krushnapriya Bale

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Ex. No.: IV Date: 28/9/24

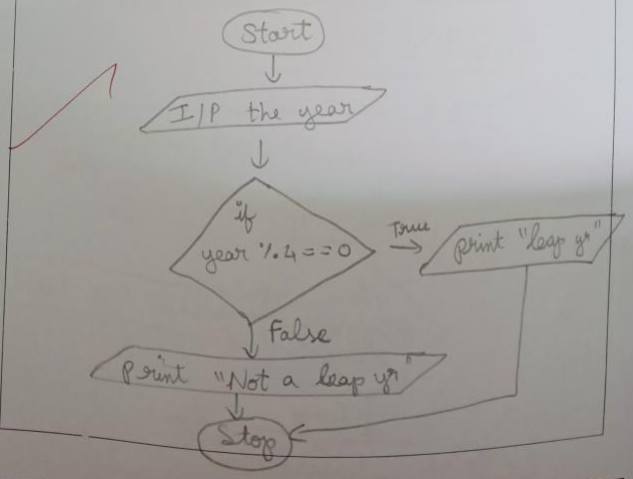
Leap Year

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

Algorithm:

Step 1 : Start
Step 2: Input the year
Step 3: If year % 4 == 0
print "leap year"
else print "Not a leap year"
Step 4 : Stop

Flowchart:



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Ex. No.: V

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:

Step1: Start

Step 2: Input the number n

Step 3: Set original = n and reversed = 0

Step 4: while n > 0

Set digit = n mod 10

update reversed = reversed * 10 + digit

update n = n / 10

Flowchart:

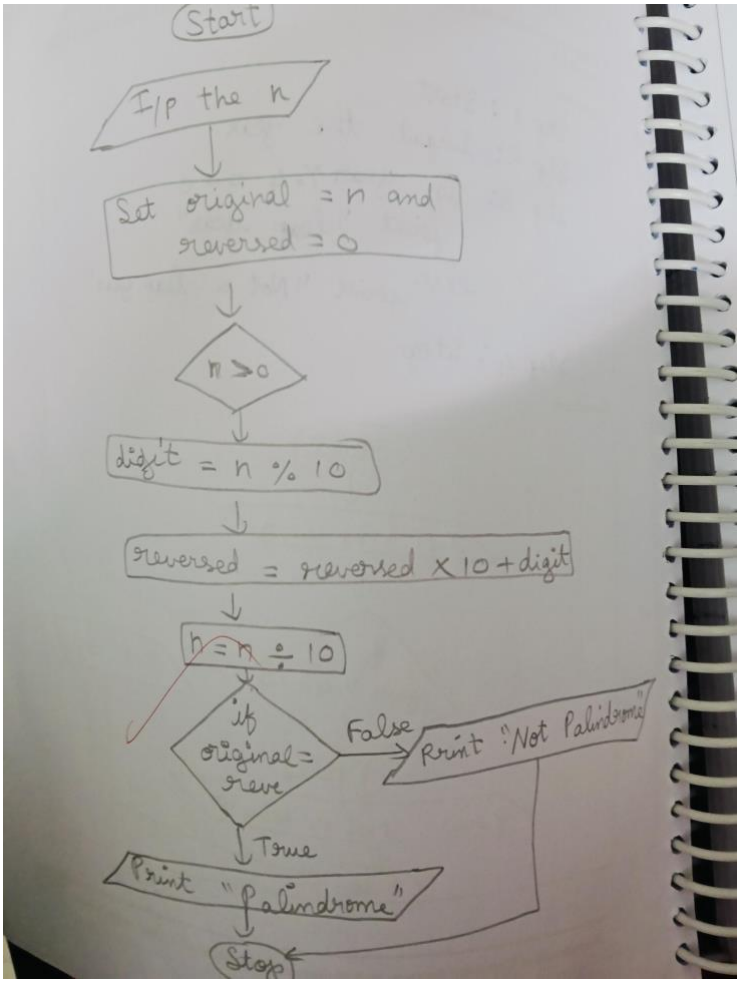
Step 5: If original = reversed

print "Palindrome"

else

print "Not a palindrome"

Step 6: Stop


Start
I/p the n
Set original = n and reversed = 0
n > 0
digit = n % 10
reversed = reversed x 10 + digit
n = n ÷ 10
if original = reve
False
Print "Not Palindrome"
True
Print "palindrome"
Stop

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GE23131 - Programming Using C

Date: 28/9/24

Ex. No.: VI

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: Input the number (n)

Step 3: Initialize sum = 0

Step 4: Repeat the foll. steps while n is greater that 0 (n > 0)

Step 5: Extract the last digit of n:

digit = n % 10

Flowchart:

Step 6: Add the digits to sum:

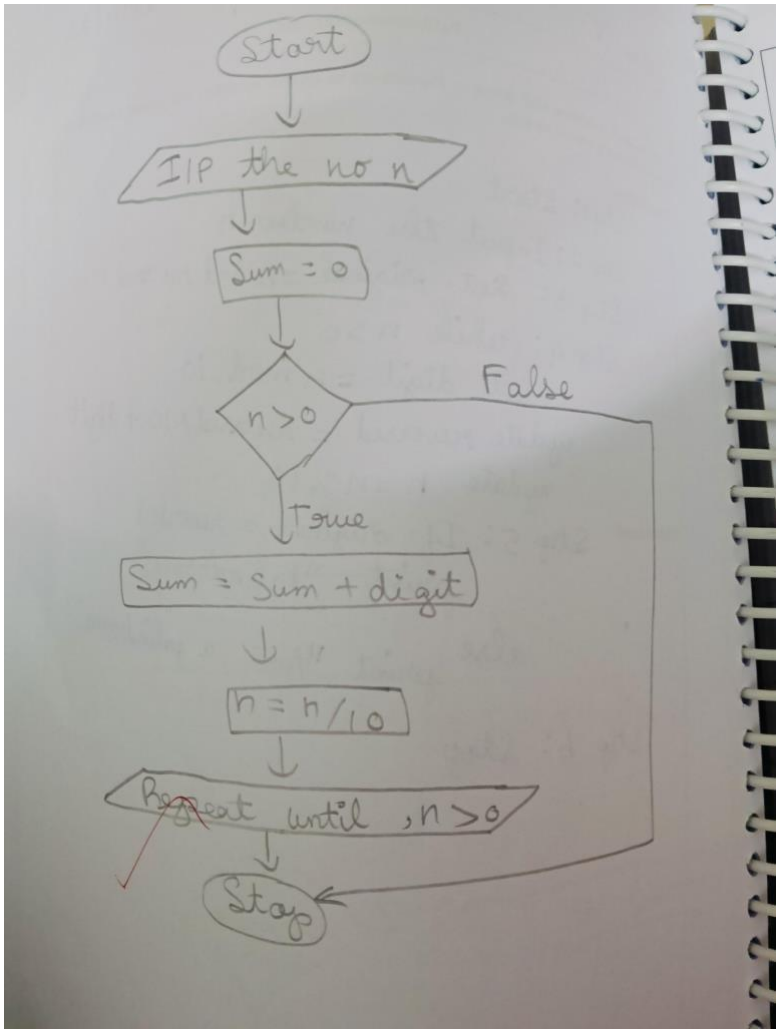
Sum = sum + digit

Step 7: Remove the last digit from n:

n = n / 10

Step 8: Output the sum

Step 9: Stop.


Start
IIP the no n
Sum = 0
n>0
False
True
Sum = Sum + digit
n = n/10
Repeat until ,n>0
Stop