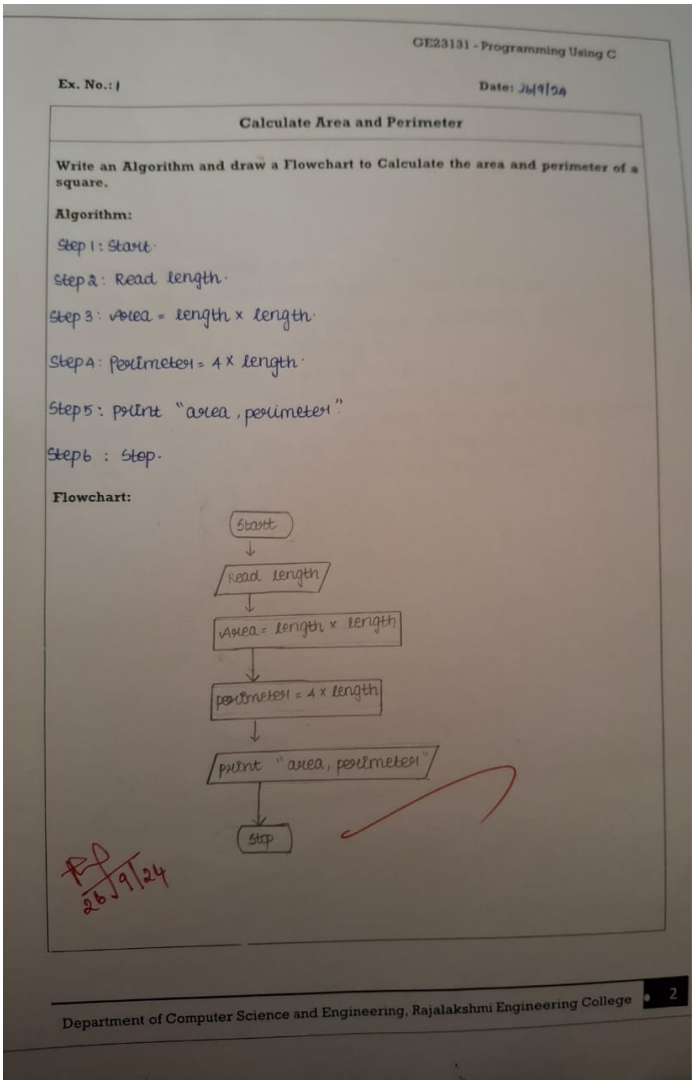
Name: Jhanani.M

Roll no: 240801137

Week 0:



GE23131 - Programming Using C

Ex. No.: 1 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 = length x length

Step 4: Perimeter = 4 x length

Step 5: print "area, perimeter"

Step 6 : Stop.

Flowchart:

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Ex. No.: 2 Date: 26/9/24

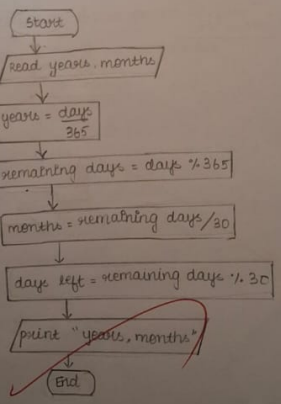
Days to Year Conversion

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

Algorithm:

Step 1 : Start
Step 2 : Input number of days
Step 3 : Calculate the number of years years = days/365.
Step 4 : Calculate remaining days after calculating years
remaining days = days % 365
Step 5 : Calculate the number of months
months = remaining days / 30.
Step 6 : Calculate the remaining days after calculating months
days left = remaining days % 30
Step 7 : Output the years, months and days left
Step 8 : End.

Flowchart:



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Ex. No.:3 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 : Read n.

Step 3 : set f = 0

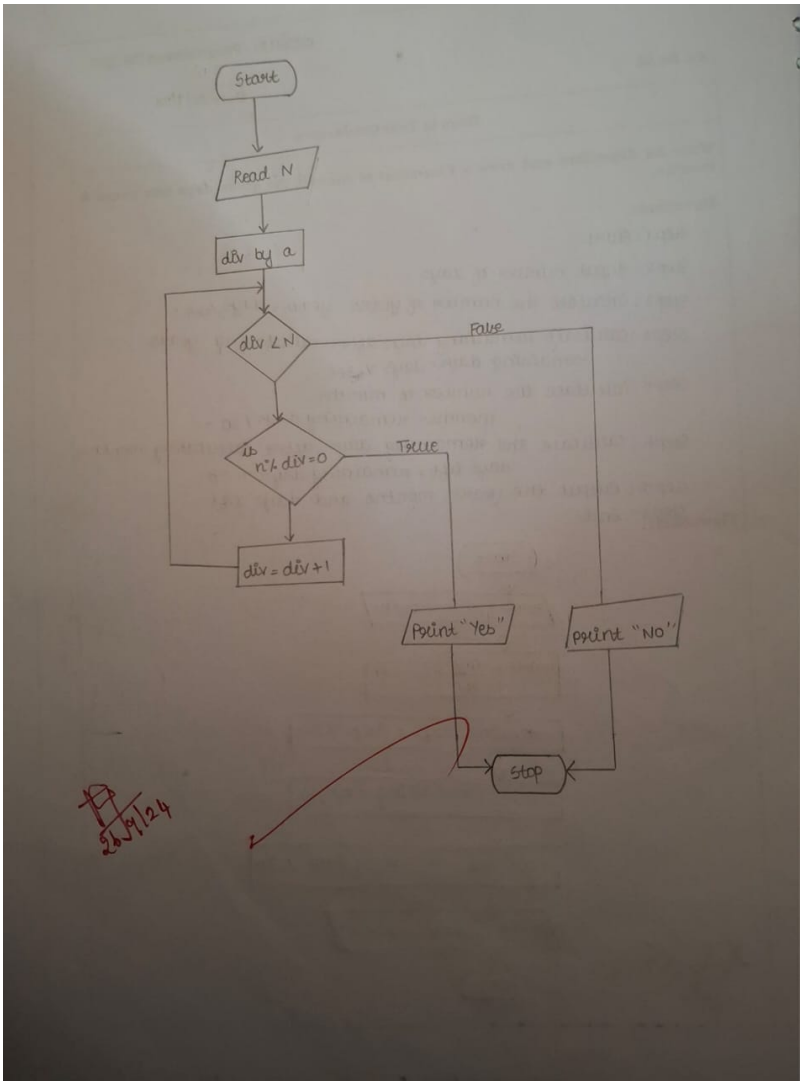
Step 4 : If n == 1 then
print "n is not prime number"
go to step 8.

Step 5 : For i = 2 to n-1

Step 6 : If n%i = 0 then
set f=1 and breaks
else
go to step 5.

Flowchart: Step 7 : If f == 1 then
print "n is not prime number"
else
print "n is prime number"

Step 8 : Stop


Start
Read N
div by a
div < N
False
is n% div = 0
True
div = div + 1
Print "Yes"
Print "NO"
Stop
26/9/24

Ex. No.: 4

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.

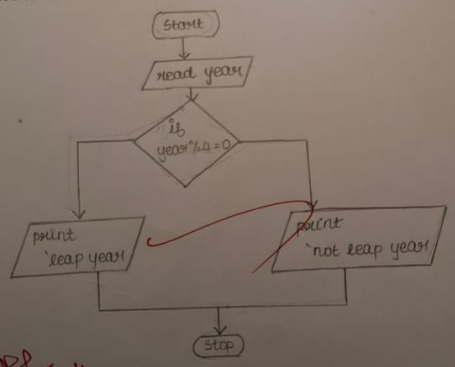
Step 2 : Read leap year.

Step 3 : rem = year % 4

Step 4 : if (rem = 0) then
print `leap year'
else
print `not leap year'

Step 5 : 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 : Read number n.

Step 3 : initialize set original = n , reversed = 0

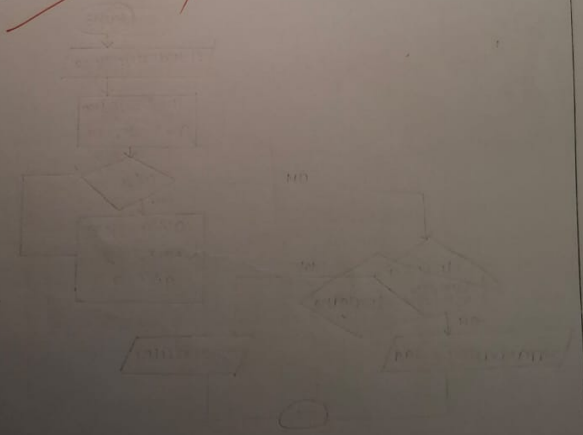
Step 4 : While n>0
set digit = n%10
Update reversed = reversed x 10+digit.
update n=n÷10.

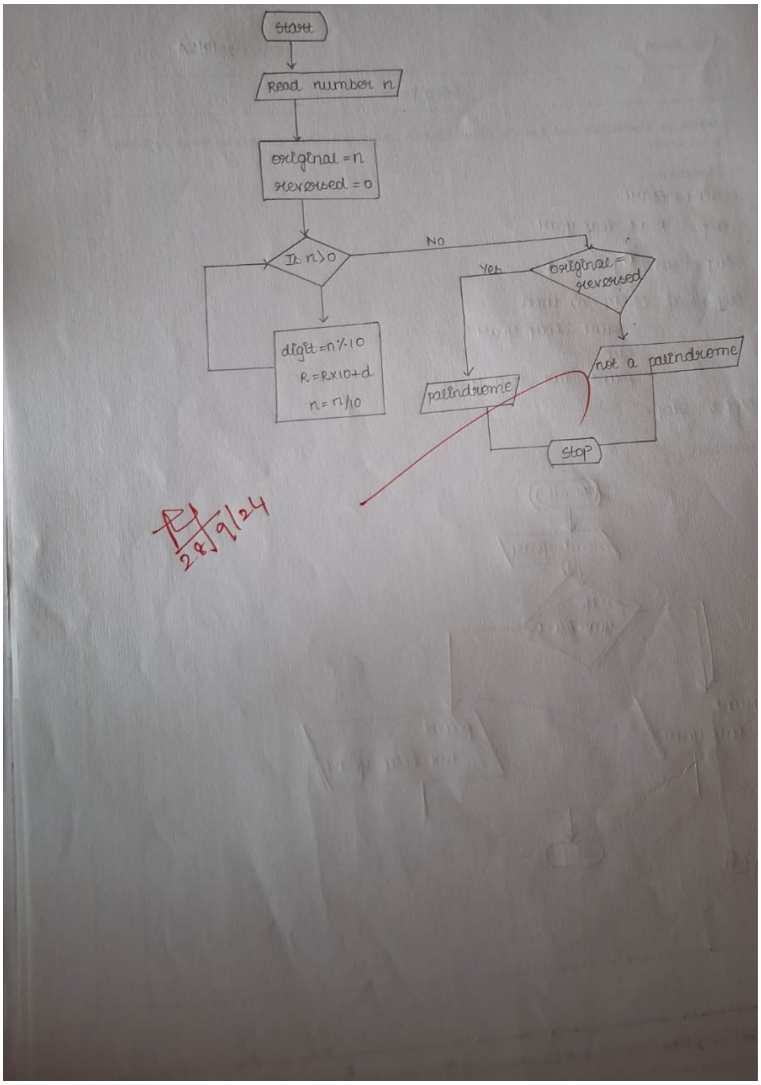
Step 5 : If original = reversed
print "palindrome"

Step 6 : Else print "not palindrome"

Step 7 : End.

Flowchart:




start
Read number n
original = n
reversed = 0
If n>0
No
Yes
original = reversed
digit = n%10
R = R*10+d
n = n/10
palindrome
not a palindrome
stop

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Ex. No.: 6 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 : Read n

Step 3 : Declare sum = 0

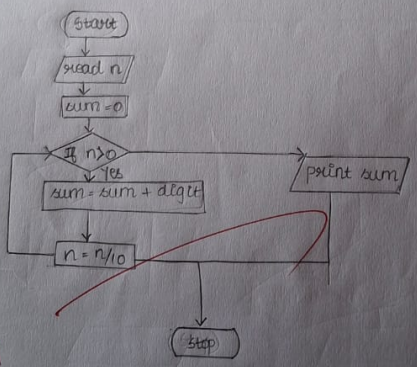
Step 4 : remainder = n%10
sum = sum + remainder
n = n/10

Step 5 : if n>0 then go to step 4
else go to step 6

Step 6 : Print sum

Step 7 : Stop

Flowchart:



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