Roll no. 240801173 Name: Lakshminarasimhan Uppili

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

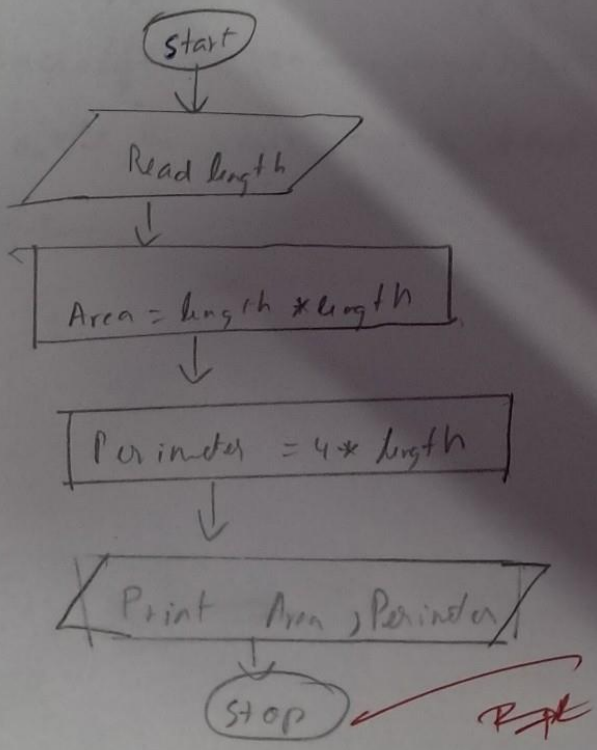
Step 3 : Calculate

Area = length * length

Step 4 : calculate Perimeter = 4 * length

Step 5 : Stop

Flowchart:



Roll no. 240801143 Name: Lakshminarasimhan Upili

GE23131 - Programming Using C

Ex. No.: 11 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: calculate the no. of years

years = days // 365

Step 4: Calculate the remaining days after calculating years

remainning_days = days % 365

Step 5: Calculate the no. of months

months = remaining days // 30

~~Flowchart:~~

Step 6: Calculate the remaining days after calculating months

days_left = remaing_days % 30

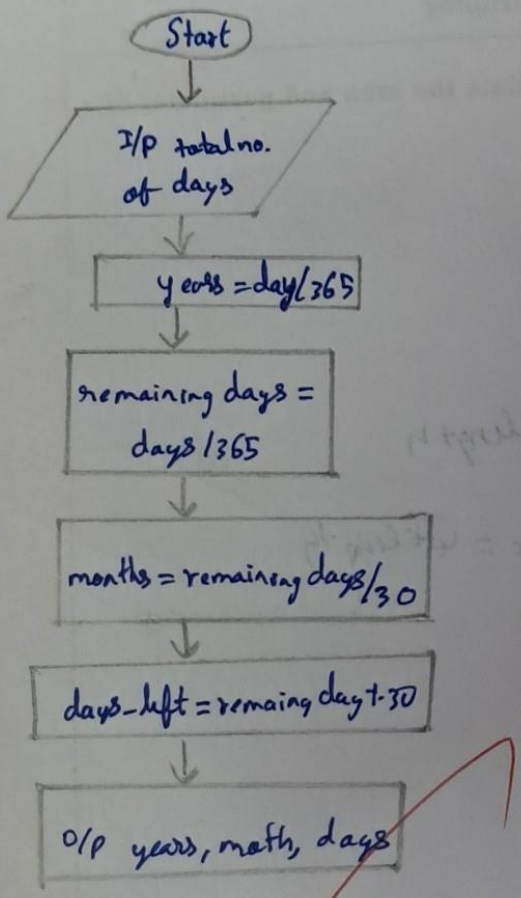
Step 7: Output the years, months & days_left

Step 8: end

Rollno. 24080117 3

Name: Lakshminarasimhan

FLOWCHART:



Roll no. 240801173 Name: Lakshminarasimhan Uppili

GE23131 - Programming Using C

Ex. No.: III **Date:** 26/9/24

Prime Number

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

Algorithm:

S1: Take num as input

S2: Initialize a variable temp to 0

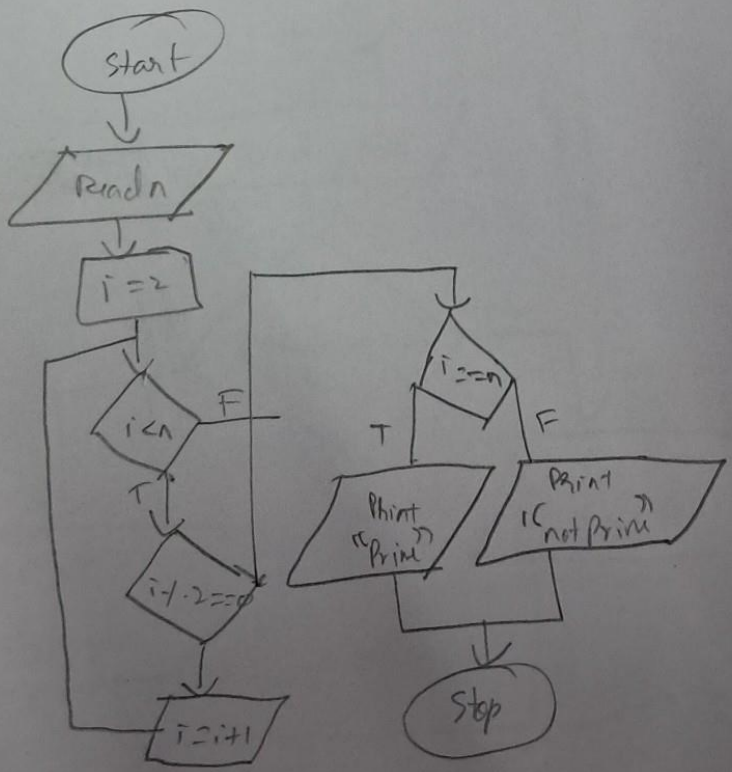
S3: Iterate a 'for' loop from 2 to n-1/2

S4: If num is divisible by loop iterator, then increment temp.

S5: If the temp is equal to 0,
return "Num is prime"

else,
Return "Num is not prime"

Flowchart:



Roll no. 240801173 Name: Lakshminarasimhan Upp

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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:

S_1: Start

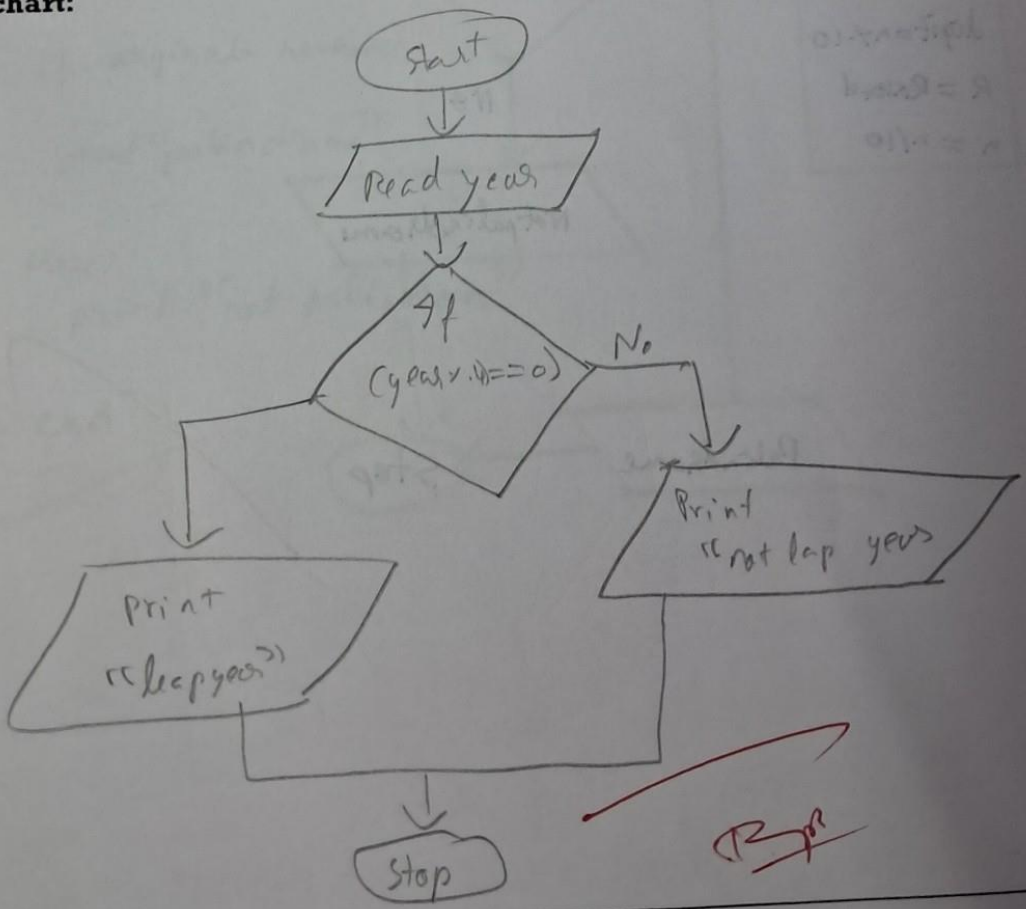
S_2: Read Years

S_3: Rem = Years % 4

S_4: if (Rem == 0) then
print "leap years"
else print "not leap years"

S_5: Stop

Flowchart:



Roll no. 240801173 Name: Lakshminarasimhan Uppili

GE23131 - Programming Using C

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:

S1: Start

S2: Read the number n

S3: Initialize e:
Set original = n & reversed = 0

S4: while n > 0
- Set digit = n mod 10
- update reversed = reversed × 10 + digit
- update n = n / 10

~~Flowchart:~~

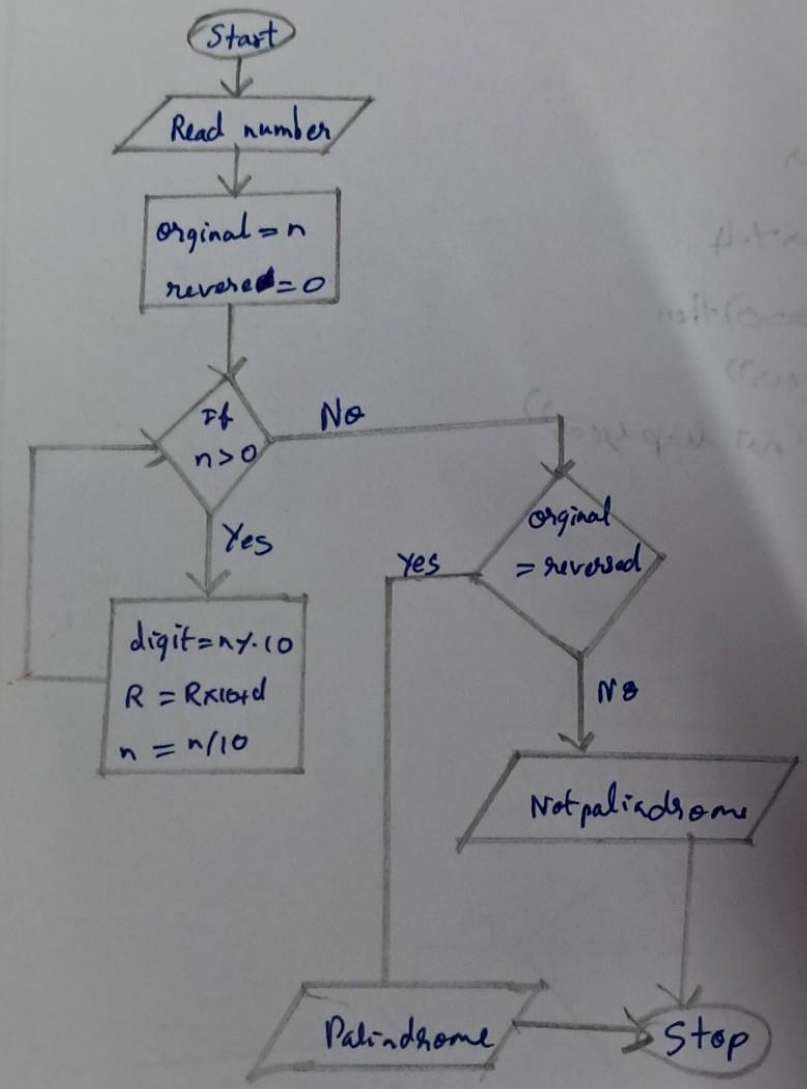
S5: if original = reversed
- print "palindrome"

S6: else:
print "not palindrome"

S7: end.

Rollno. 240801175 Name: Lakshminarasimhan Uppili

FLOWCHART:



Roll No. 240801173 Name: Lakshminarayanan Appili

GE23131 - Programming Using C

Ex. No.: 11 **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:

S_1: start

S_2 = Input the number (n)

S_3 : Initialize
Sum = 0

S_4 : Repeat the following steps while
n is greater than 0

- Extract the last digit of n:
  digit = n % 10
- Add the digit to sum:
  Sum = Sum + digit
- Remove the last digit
  n = n // 10

S_5 : output the sum

S_6 : Stop

Flowchart:

Rollno- 240801173

Name: Lakshminarasimhan Uppili

Flowchart