25/9/2024

Name : Aaarya. P
Roll No: 241401010

Experiment - I

Write an algorithm and draw a flowchart to find the area and perimeter of a square.

Algorithm

Step1: Start

Step 2: Read l

Step 3: Area = l * l

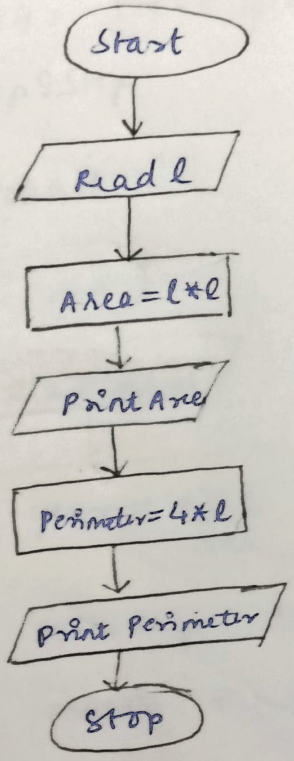
Step 4: Print Area

Step 5: Perimeter = 4 * l

Step 6: Print Perimeter

Step 7: Stop

Flowchart



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Name: Aravya.P
Roll No: 241401010

Experiment - II

Write an algorithm and draw a flowchart to convert the days into years and months.

Algorithm:

Step 1: Start

Step 2: Read days

Step 3: Calculate the number of ~~days~~ years - year = $\frac{days}{365}$

Step 4: Calculate the remaining days after calculating years.
rem_days = days % 365.

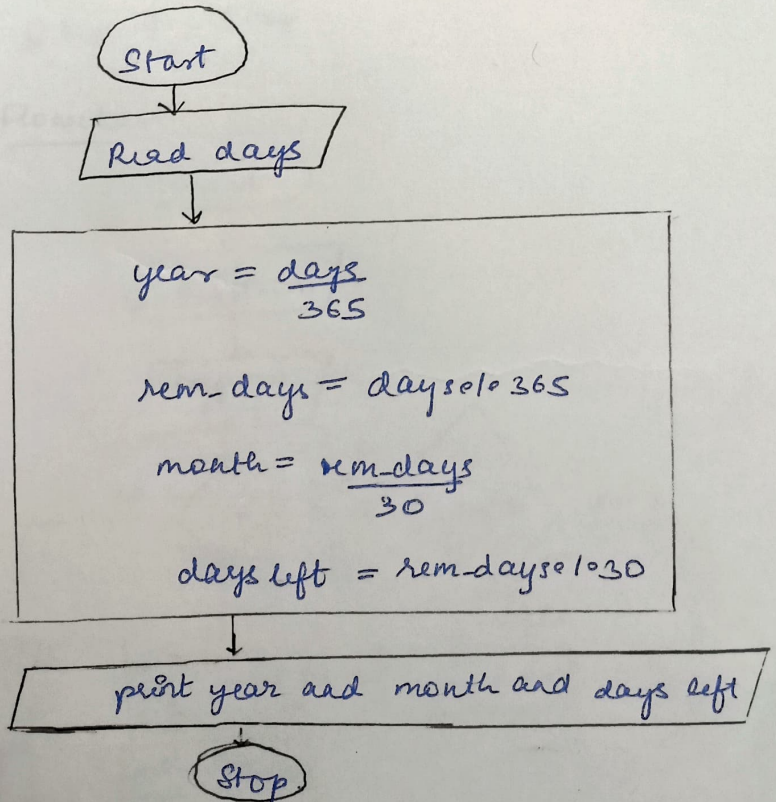
Step 5: Calculate the number of months - month = $\frac{rem\_days}{30}$

Step 6: Calculate the number of days left - daysleft = remdays % 30.

Step 7: Print year and month and days left

Step 8: Stop

Flowchart.



25/9/24 Experiment - III

Name: Aaraya. P
ROLL NO: 241401010

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

Algorithm

Step 1: Start

Step 2: Take num as input

Step 3: Initialize a variable temp to 0.

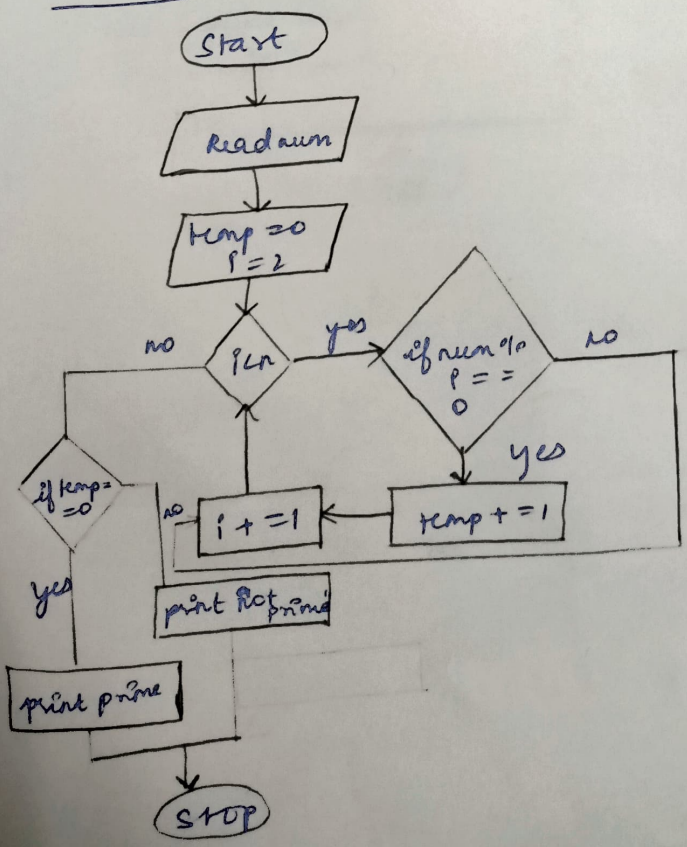
Step 4: Iterate a 'for' loop from 2 to num.

Step 5: If num is divisible by 2 loop iteration, then, increment temp.

Step 6: If the temp is equal to 0,
return 'num is prime'
else, return 'num is not prime'

Step 7 : Stop

Flowchart:



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Name: Anaaya P
Roll No: 241401010

Experiment IV

Write an Algorithm and draw a Flowchart to check for leap year

Algorithm

Step 1: Start

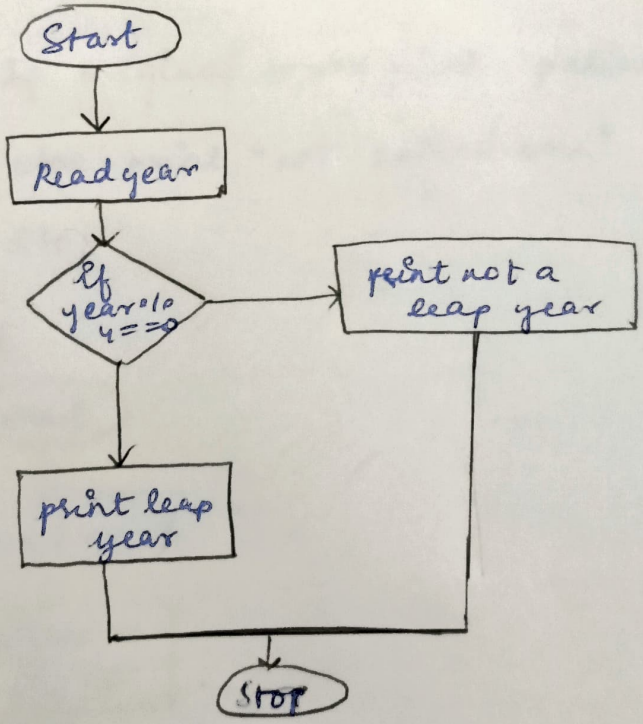
Step 2: read year

Step 3: If year%4 == 0
print "leap year"

Step 4: else
print "not a leap year"

Step 5: Stop

Flowchart



25/9/24 Experiment V

Name: Anaya P
Roll No: 241401010

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

Algorithm:

Step 1: Start

Step 2: Read n

Step 3: Initialize : set original = n & rev = 0

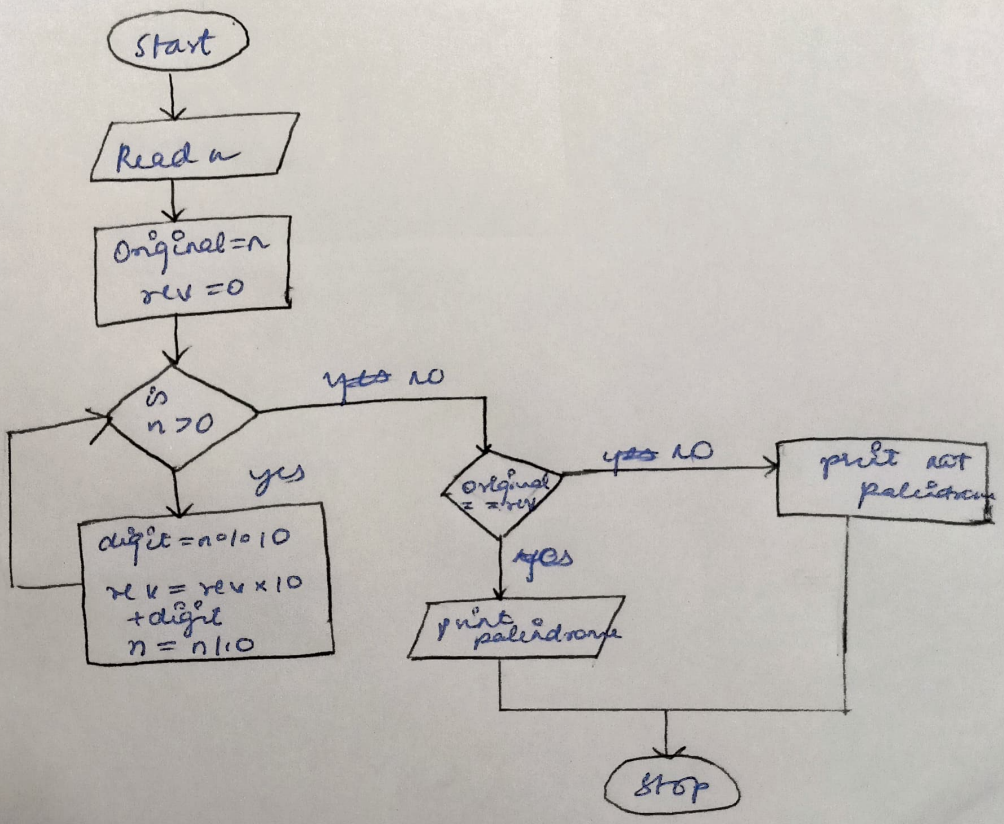
Step 4: While n > 0
- set digit = n mod 10
- update rev = rev * 10 + digit;
- update n = n / 10

Step 5: If original = rev print 'palindrome'

Step 6: else print "not palindrome"

Step 7: Stop

Flowchart



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Experiment VI

Name: Anaaya.P

Roll No: 241401010

Write an Algorithm and draw a flowchart to calculate the sum of digits of is the given number.

Algorithm

Step 1: Start

Step 2: Read n

Step 3: Initialize sum=0

Step 4: Repeat the following steps while n is greater than 0

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

Step 5: print sum

Step 6: end.

Flowchart