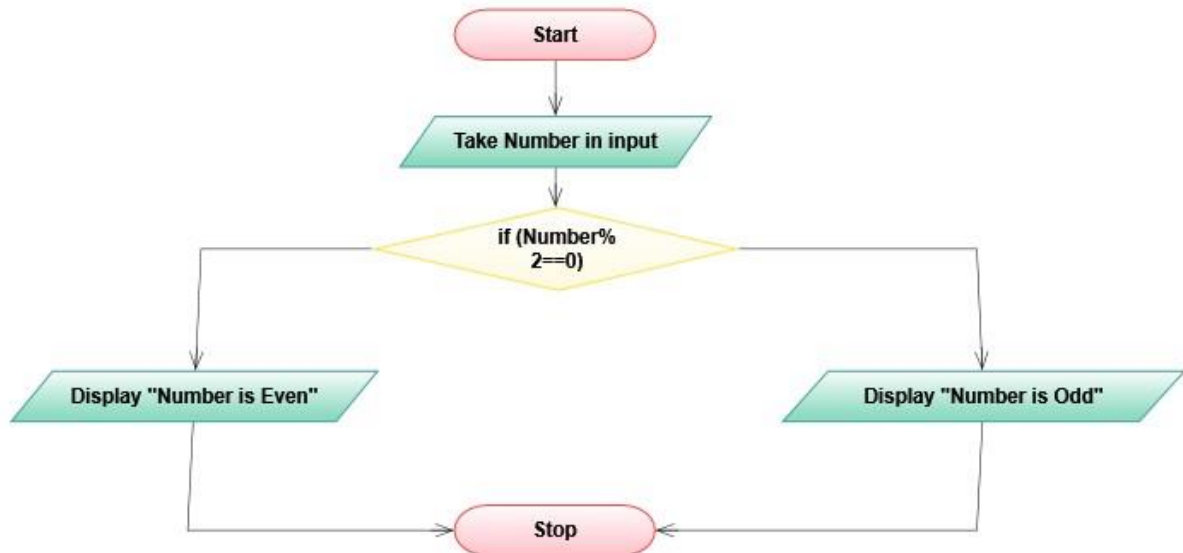


Step 1 : Take input number from user
Step 2 : Check if number is divisible by 2 with remainder as zero
Step 3 : if Step 2 is
1. True - Display Even
2. False - Display Odd



Problem 17: Check if number is Palindrome.

Step 1 : Take inputs: integer n1

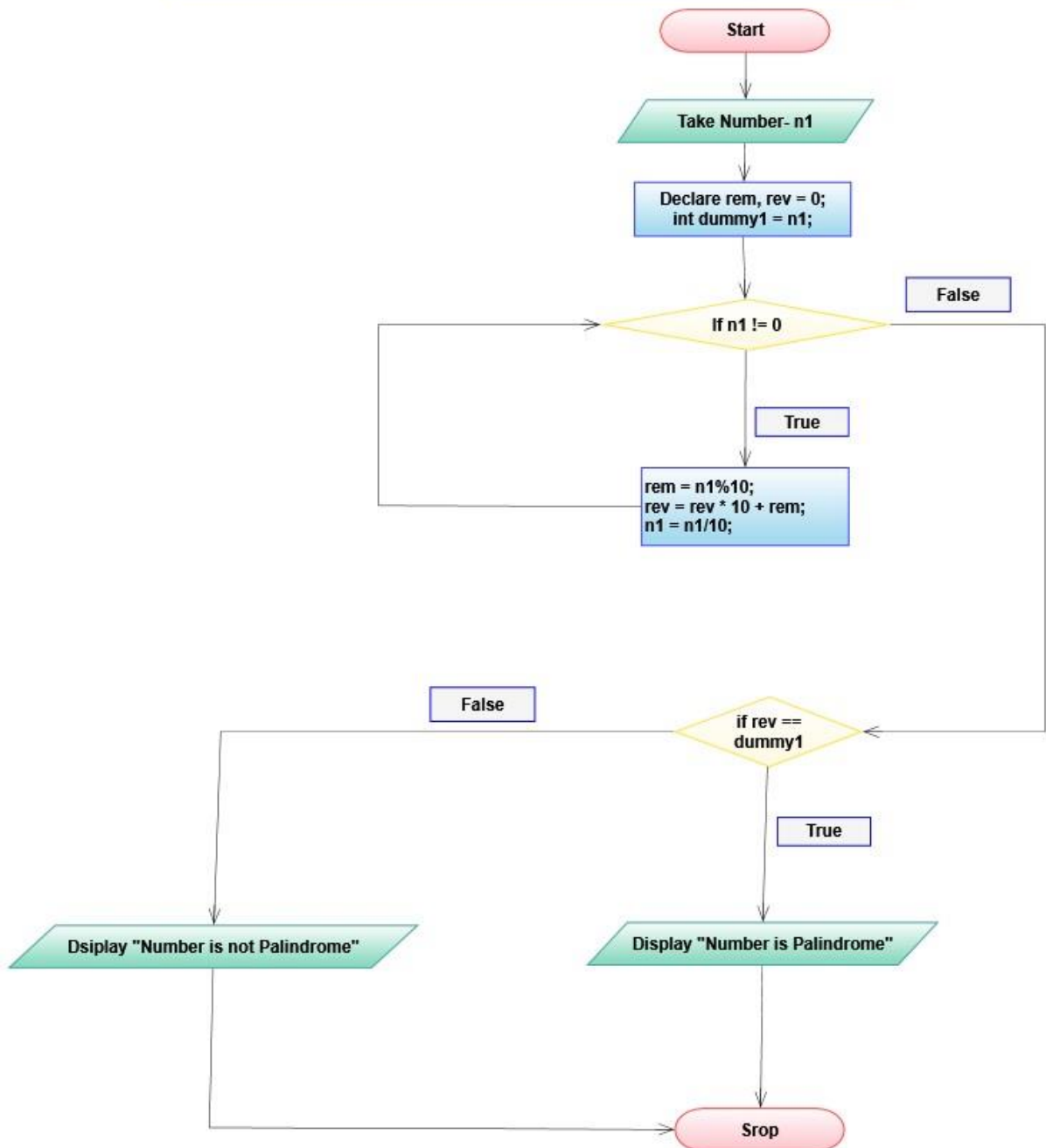
Step 2 : Declre rem, rev = 0, dummy1 = n1;

Step 3 : Check if n1 is not equal to zero ($n1 \neq 0$) then go to step 4
else go to step 5

Step 4 : Divide the n1 by 10 and store it in remainder rem ($rem = n1 \% 10$).
calculate reverse number($rev = rev * 10 + rem$)
calculate $n1 = n1 / 10$
go to Step 3

Step 5: if dummy1 == rev then display "Palindrome"
else display "Number is not Palindrome"

Step 6: End.



Problem 14: LCM of two numbers

Step 1 : Take inputs: integer n1, n2;

Step 2 : Declare integers dummy1, dummy2, rem, lcm and gcd;

Step 3 : Find out max of two input numbers.

if $n1 > n2$ then do $dummy1 = n1$ and $dummy2 = n2$

else do $dummy1 = n2$ and $dummy2 = n1$

Step 4 : if $dummy1 \% dummy2 == 0$ then do $gcd = dummy2$ and go to step 7

else go to step 5

Step 5 : if $dummy1 \% dummy2 \neq 0$ then go to step 6

else $gcd = dummy2$ and go to step 7

Step 6 : $rem = dummy1 \% dummy2$;

$dummy1 = dummy2$;

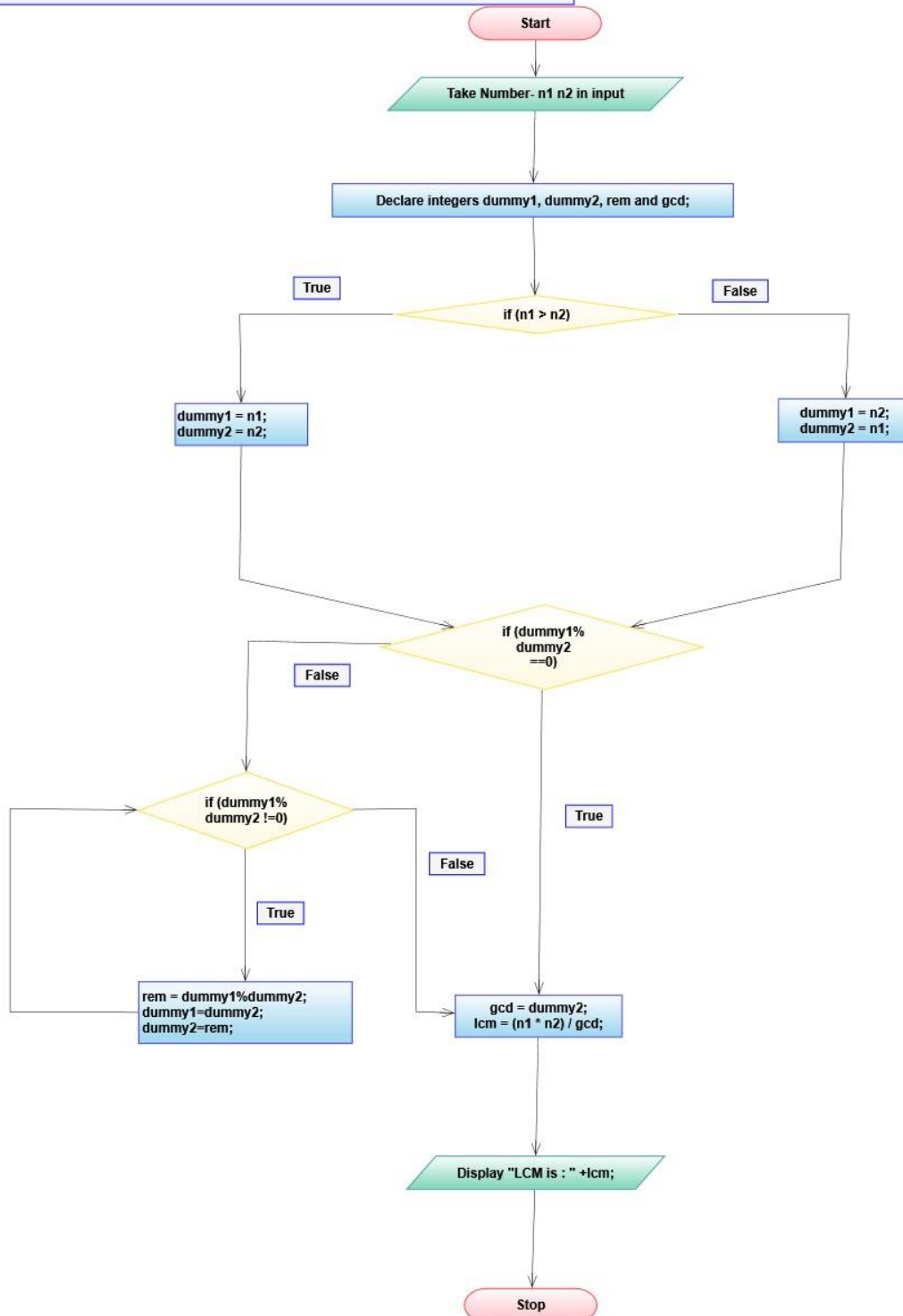
$dummy2 = rem$

go to step 5

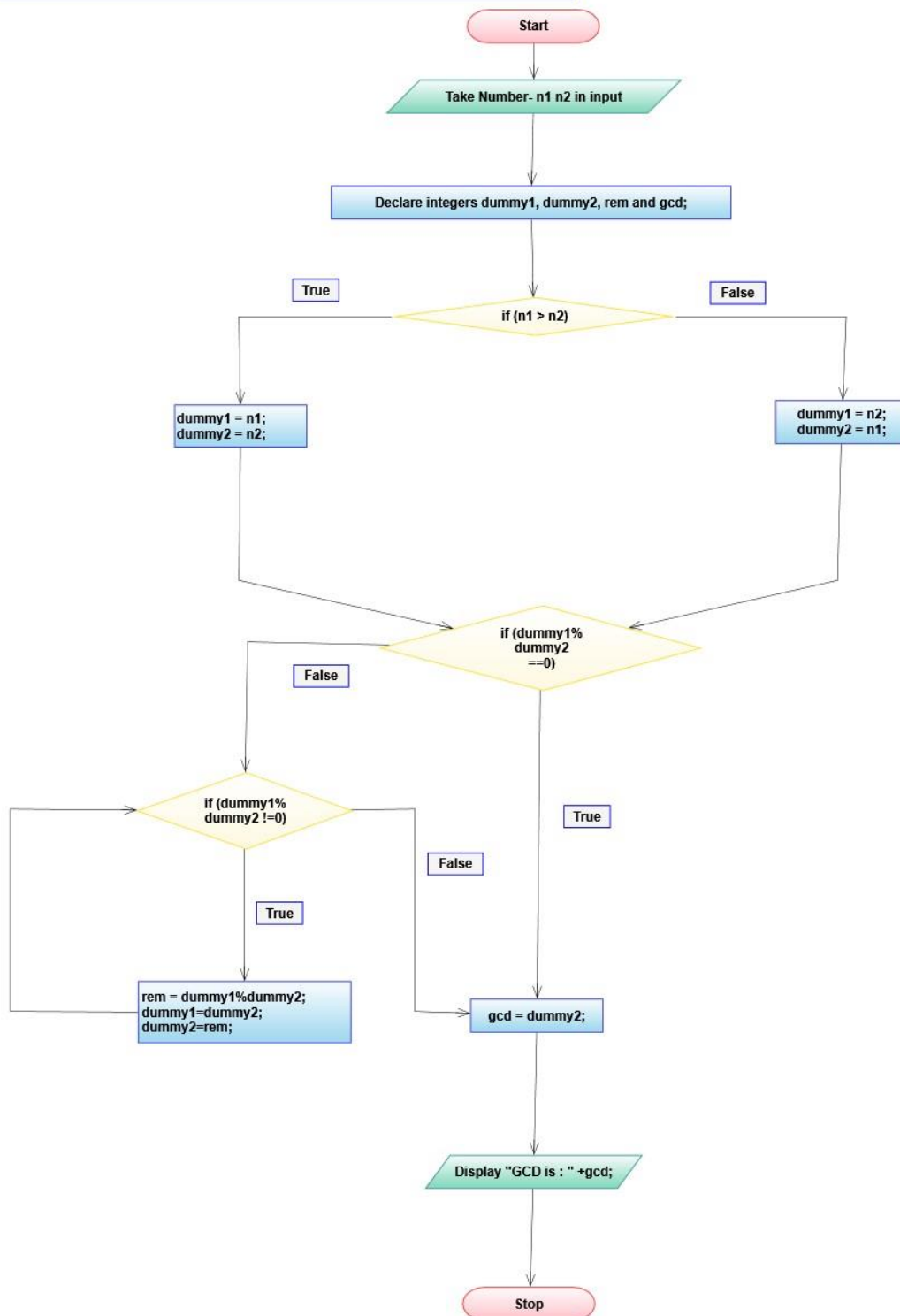
Step 7 : Calculate $lcm = (n1 * n2) / gcd$;

Step 8 : Display "LCM is " + lcm

Step 9 : End;



Problem 14: GCD of two numbers
 Step 1 : Take inputs: integer n1, n2;
 Step 2 : Declare integers dummy1, dummy2, rem and gcd;
 Step 3 : Find out max of two input numbers.
 if $n1 > n2$ then do $dummy1 = n1$ and $dummy2 = n2$
 else do $dummy1 = n2$ and $dummy2 = n1$
 Step 4 : if $dummy1 \% dummy2 == 0$ then do $gcd = dummy2$ and go to step 7
 else go to step 5
 Step 5 : if $dummy1 \% dummy2 \neq 0$ then go to step 6
 else $gcd = dummy2$ and go to step 7
 Step 6 : $rem = dummy1 \% dummy2$;
 $dummy1 = dummy2$;
 $dummy2 = rem$
 go to step 5
 Step 7 : Display "GCD is : " +gcd
 Step 8 : END.



Problem 13: Reverse the given number.

Step 1 : Take inputs: integer n1

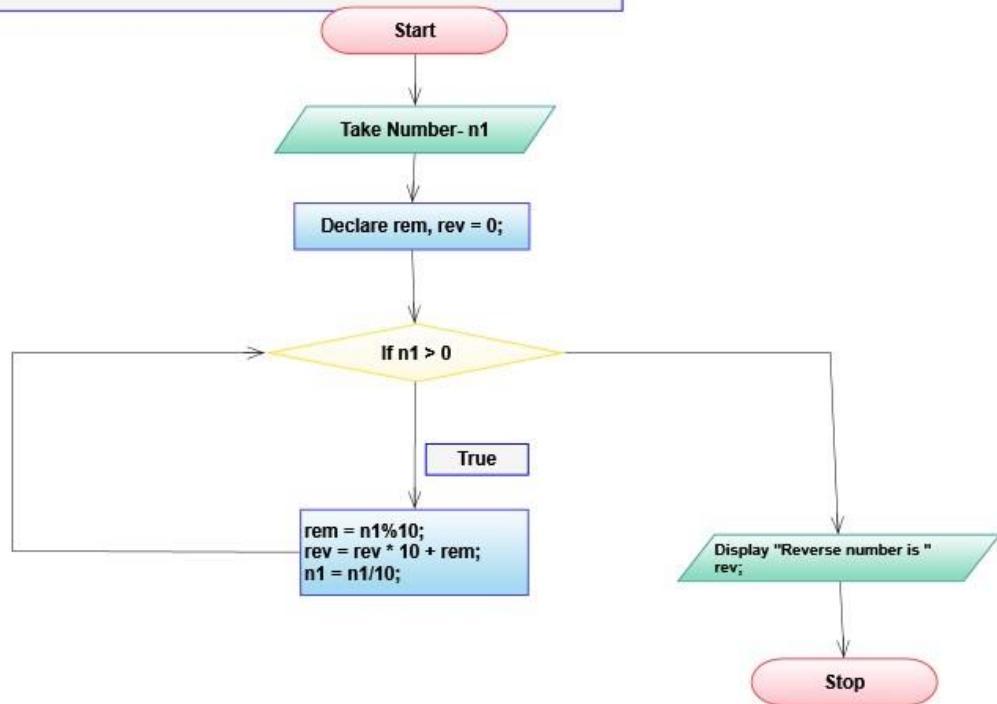
Step 2 : Declare rem, rev = 0.

Step 3 : Check if n1 is greater than zero ($n1 > 0$) go to step 4
else go to step 5

Step 4 : Divide the n1 by 10 and store it in remainder rem ($rem = n1 \% 10$).
calculate reverse number ($rev = rev * 10 + rem$)
calculate $n1 = n1 / 10$
go to Step 3

Step 5: Display "Reverse number is " rev

Step 6: End.



Problem 11: Smallest of given 3 numbers

Step 1 : Take inputs: integer n1, n2 and n3

Step 2 : Declare integer small=0;

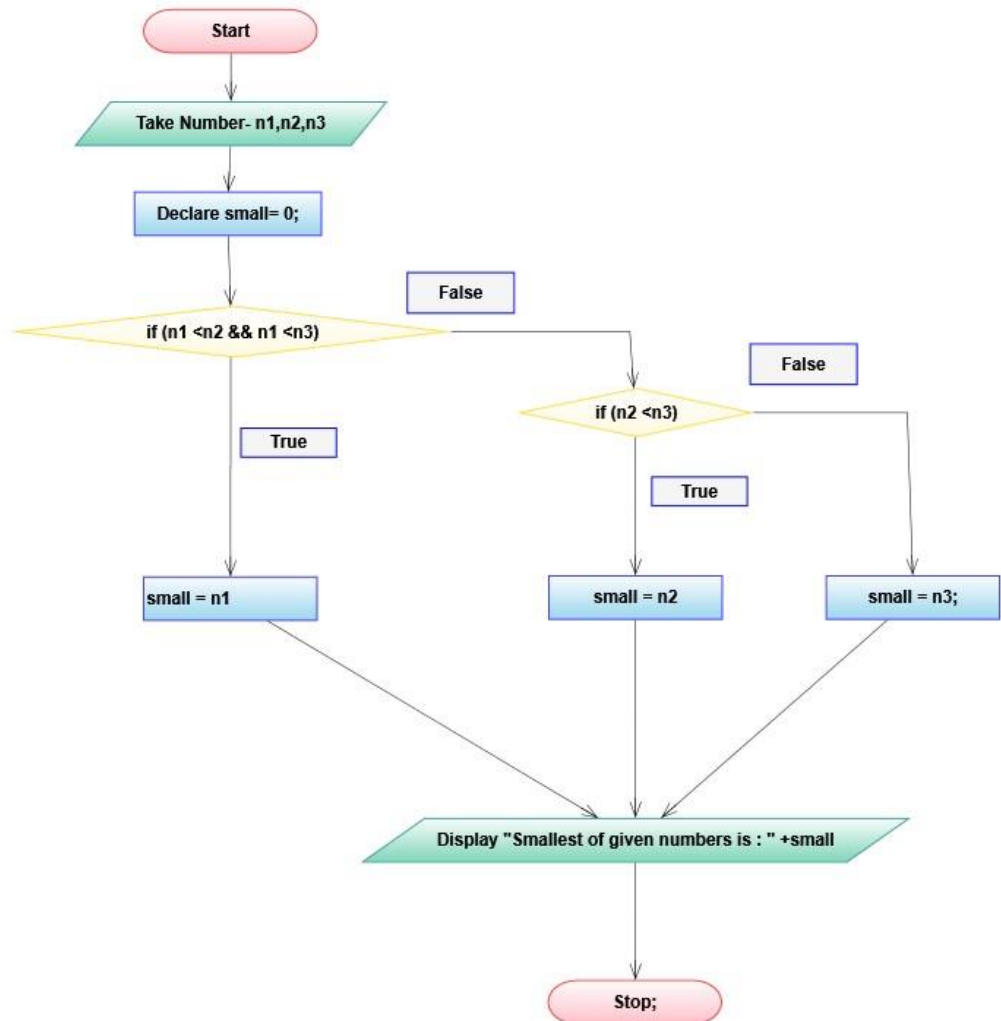
Step 3 : if n1 < n2 and n1 < n3 then small = n1
else go to step 4

Step 4 : if n2 < n3 then small = n2
else go to step 5

Step 5 : small = n3;

Step 6 : Display "Smallest number is: " +small;

Step 7 : End.



Problem 10: Sum of the digit of given nuber

Step 1 : Take inputs: integer n1

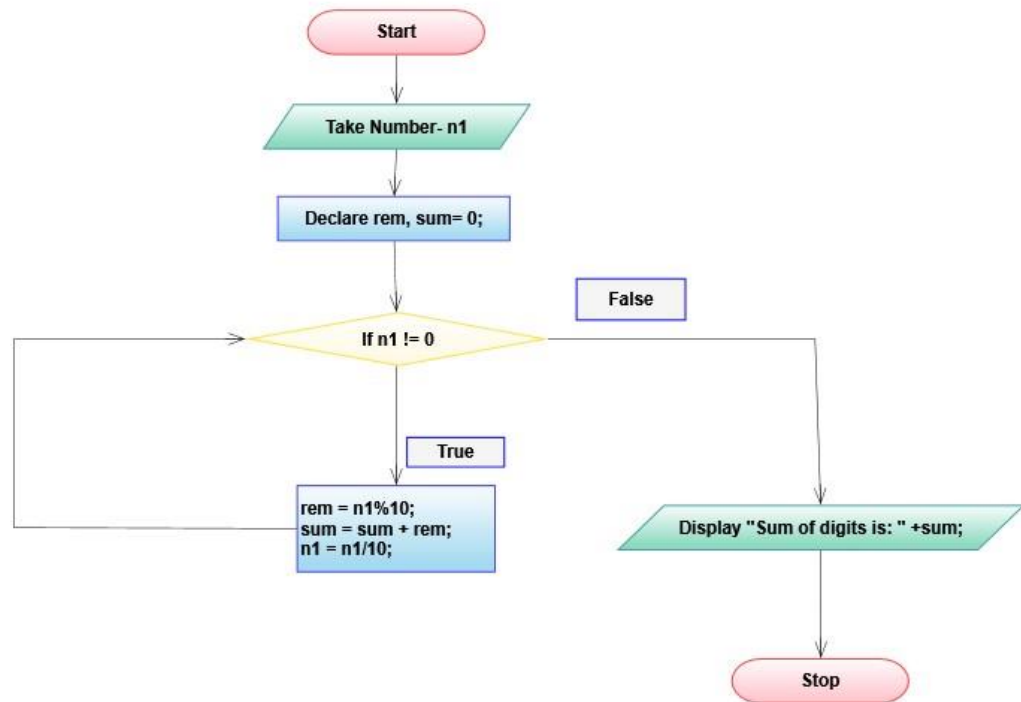
Step 2 : Decalre rem=0,sum=0.

Step 3 : Check if n1 is not zero ($n1 \neq 0$) go to step 4
else go to step 5

Step 4 : Divide the n1 by 10 and store it in remainder rem ($rem = n1 \% 10$).
calculate $sum = sum + rem$
calculate $n1 = n1 / 10$
go to step 3

Step 5: Display "sum of digits is: " +sum;

Step 6 : End.



Problem 9: Print Factors of given integer

Step 1 : Take inputs: integer n1

Step 2 : Declare int i=1, rem=0;

Step 3 : Check if i <= n1 then go to step 4
else go to step 5

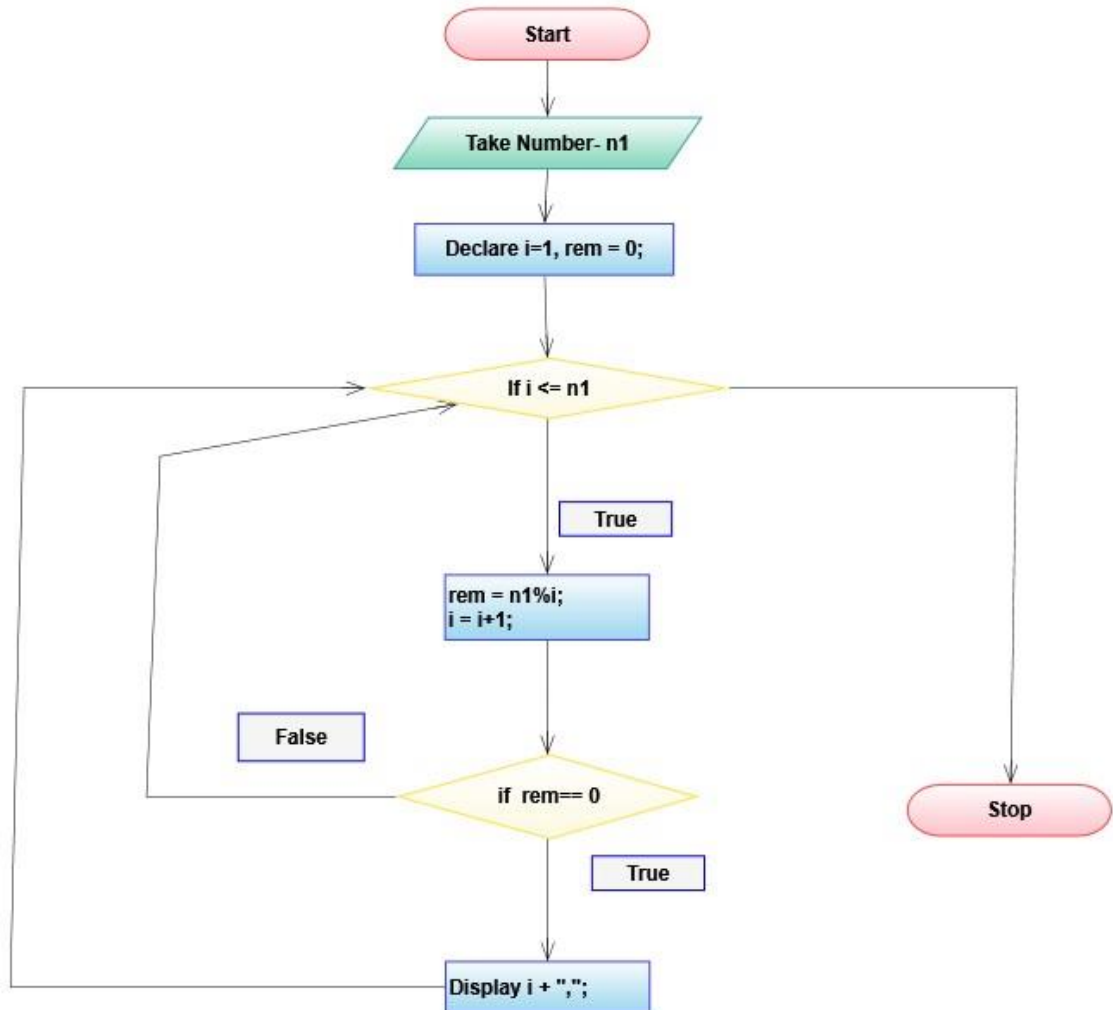
Step 4 : Divide the n1 by i and store it in remainder rem (rem = n1 %i).

i = i+1;

if remainder is equal to zero (rem ==0) then print i (i+ " ");

go to step 3

Step 5 : End.



Problem 8: Print the digit of given nuber

Step 1 : Take inputs: integer n1

Step 2 : Decalre rem, rev = 0, digit.

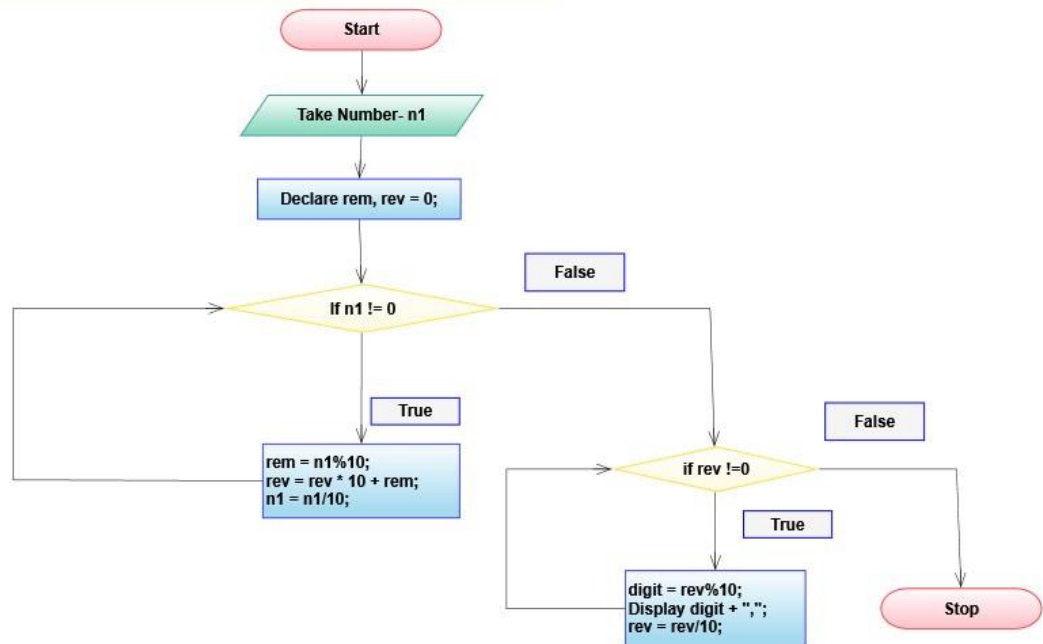
Step 3 : Check if n1 is not zero ($n1 \neq 0$) go to step 4
else go to step 5

Step 4 : Divide the n1 by 10 and store it in remainder rem ($rem = n1 \% 10$).
calculate reverse number($rev = rev * 10 + rem$)
calculate $n1 = n1 / 10$
go to step 3

Step 5: if $rev \neq 0$ is true then go to step 6
else go to step 7;

Step 6 : $digit = rev \% 10$;
Display digit + ","
 $rev = rev / 10$;
go to step 5

Step 7 : End.



Problem 6 To check if given year is leap year or not.

Step 1 : Take input year : integer year and declare boolean flag = false;

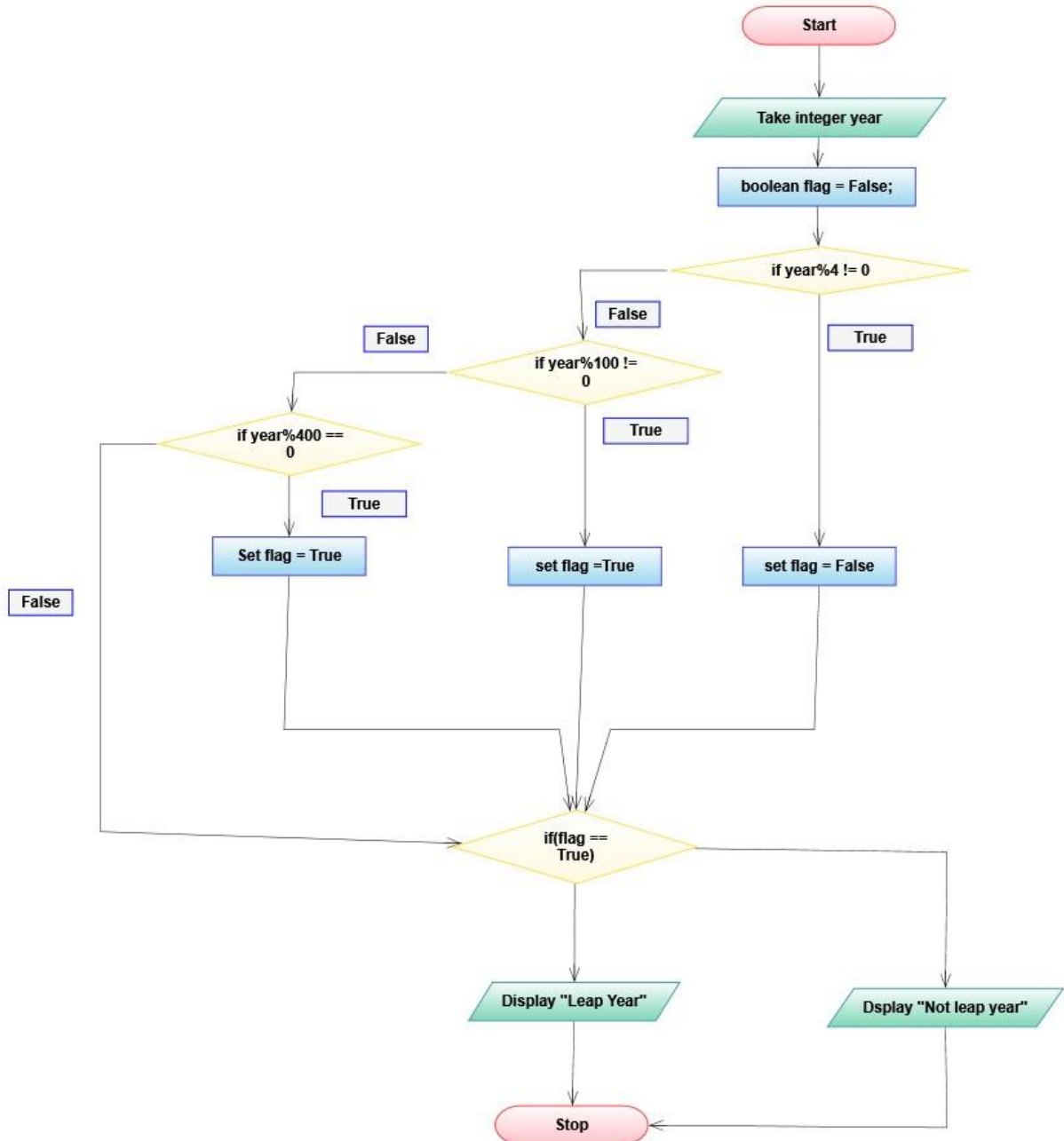
Step 2: If year is not divisible by 4 completely then Set flag to False
else go to Step 3

Step 3: If year is not divisible by 100 then set flag to True
else go to step 4

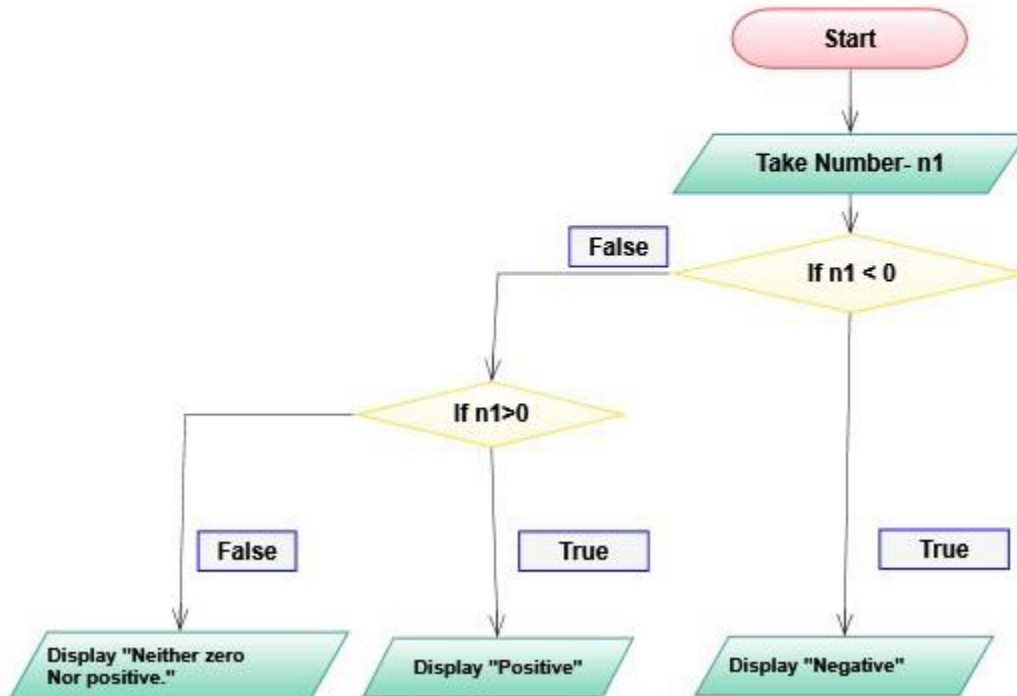
Step 4: If year is divisible by 400 then set flag to True

Step 5: If (flag) display "Leap Year" else display "Not Leap"

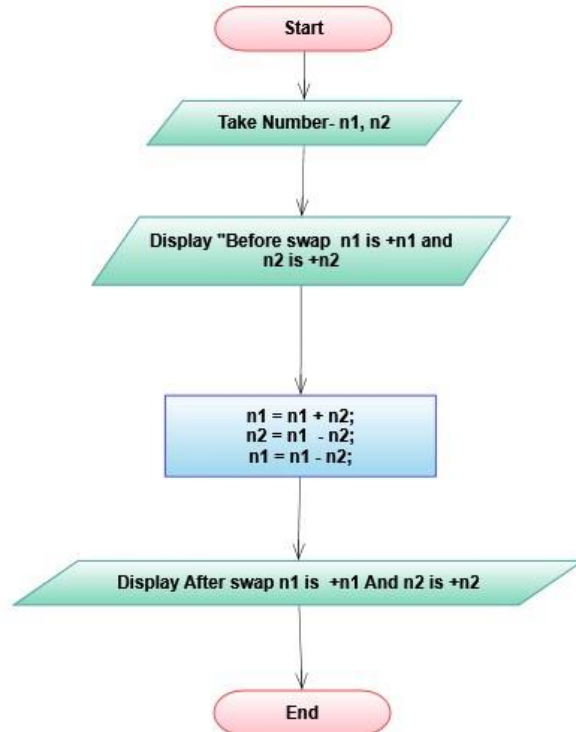
Step 6: End.



Step 1 : Take inputs: integer n1
Step 2: If $n1 > 0$ Display "Positive"
Step 2: If $n1 < 0$ Display "Negative"
Step 3: If $n1 = 0$ Display "Neither Positive nor Negative"
Step 7: End.



Step 1 : Take 2 inputs: integer n1 And integer n2
Step 2: Display values before swap.
Step 3 : Calculate $n1 = n1 + n2$. So n1 will carry addition of two input numbers and n2 will have its original value.
Step 4 : Calculate $n2 = n1 - n2$. Here result will be original value of n1 and will be assigned to n2
Step 5 : Calculate $n1 = n1 - n2$. Here result will be original value of n2 and will be assigned to n1.
Step 6: Display values after swap.
Step 7: End.



Step 1 : Take input number n1 from user
Step 2 : declare and initialize integers- fact and i = 1
Step 3 : If i is less than or equal to n1 then do multiply fact with i and assign it to the factorial- fact
If i is greater than n1 go to Step 5
Step 4: Increase i by 1 and go to step 3
Step 5: Display the factorial fact.
Step 6: End.

