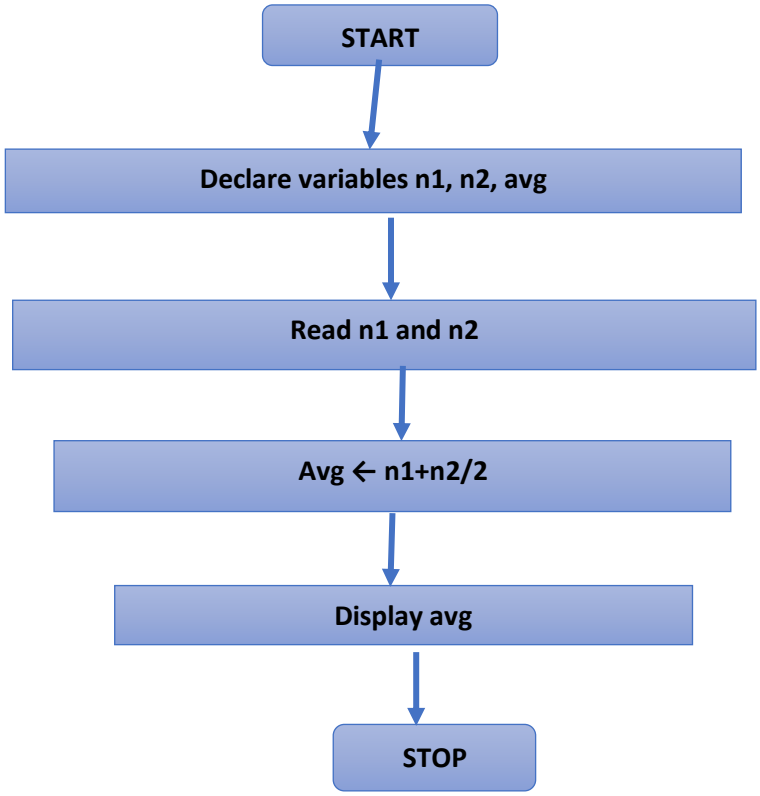
ASSIGNMENT- 1

Name- DEVI PRASANNA MISHRA

Q1. Find the average mark given mark1 and mark2.

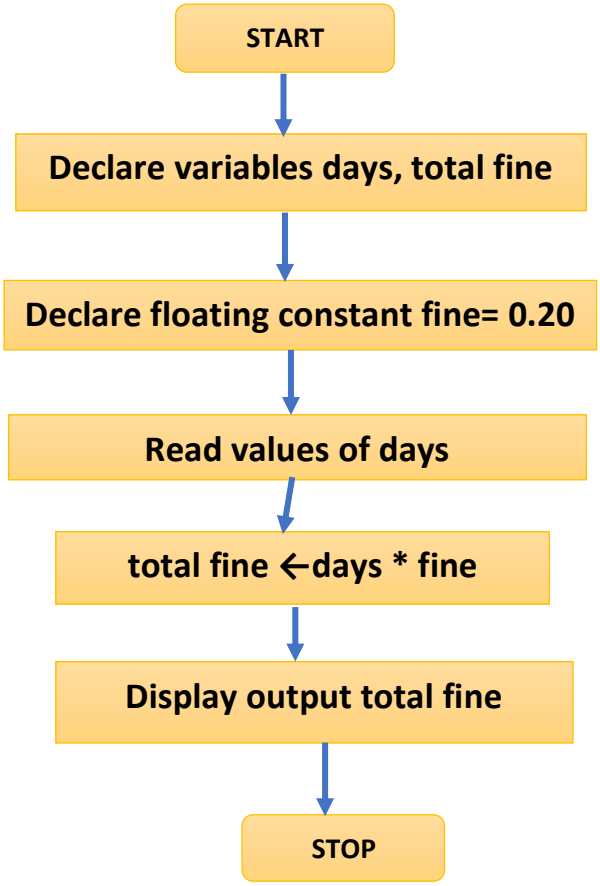
Step 1: Start
Step 2: Declare variables n1, n2, avg
Step 3: Read values of n1 and n2
Step 4: Add n1, n2 and divide them with 2
avg → n1+n2/2
Step 5: Store the value in variable avg
Step 6: Print the value of variable avg
Step 7: Stop



2. Calculate the total fine charged by library for late-return books. The charge is 0.20 INR for 1 day.

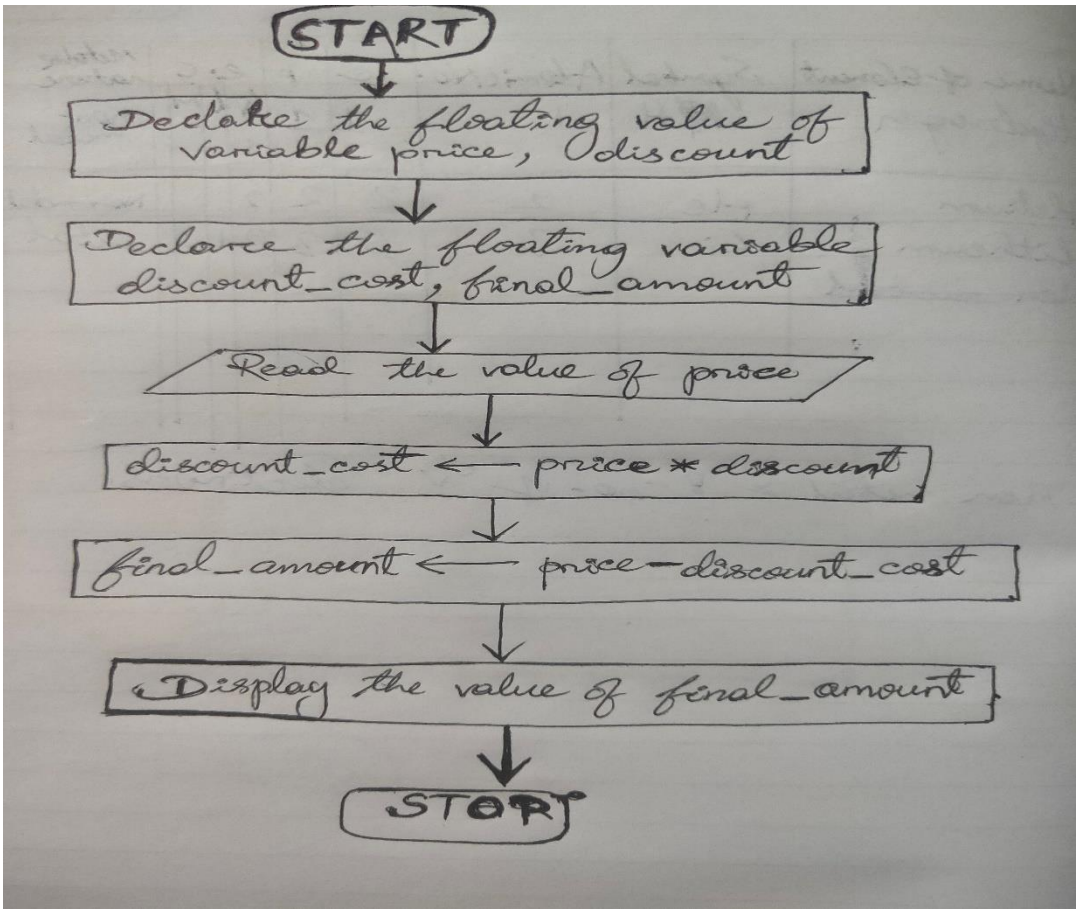
Step 1: Start
Step 2: Declare variables days, total fine
Step 3: Declare floating constant fine= 0.20
Step 4: Read values of days
Step 5: Multiply days with fine
total fine ←days * fine
Step 6: Store the value in total fine
Step 7: Print the value of total fine

Step 8: Stop



3. You had bought a nice shirt which cost Rs. 29.90 with 15% discount. Count the net price for the shirt?

STEP 1: Start
STEP 2: Declare the floating variables price, discount
STEP 3: Declare the floating variable discount_cost, final_amount
STEP 4: Read the value of price and discount
STEP 5: Multiply price with discount
discount_cost← price*discount
STEP 6: Store the value in discount_cost
STEP 7: Subtract price with discount_cost
final_amount ← price – discount_cost
STEP 8: Store the value in final_amount
STEP 9: Print the value of final_amount
STEP 10: Stop



4. Find the smallest number among three different numbers.

STEP 1: Start

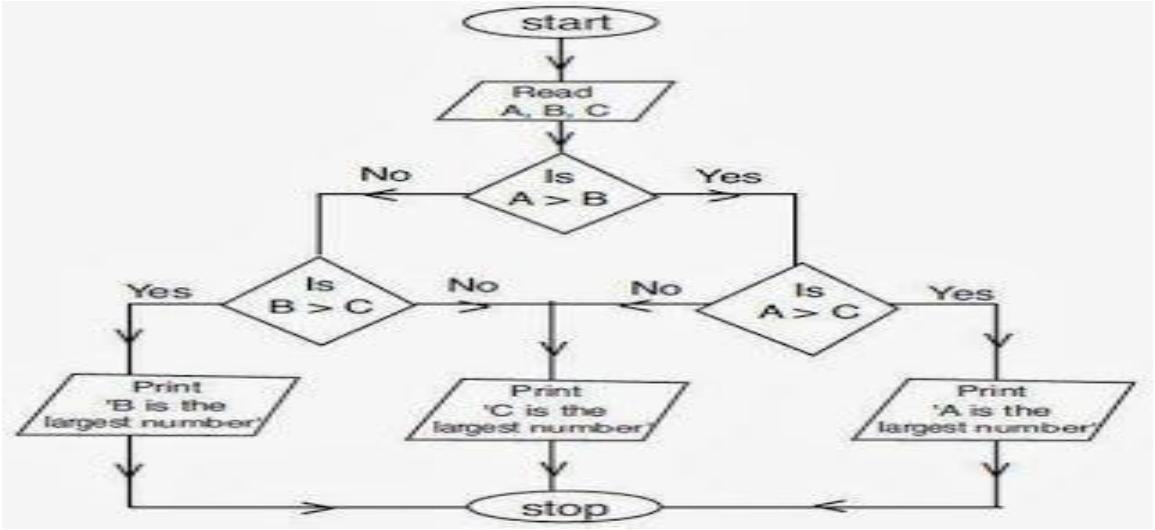
STEP 2: Declare three variable a, b, c

STEP 3: Compare a with b and c. If a is smaller than b and c than a is smallest among three numbers

STEP 4: Compare b with a and c. if b is smaller than a and c than b is smallest among three numbers

STEP 5: Else c is smallest among three numbers

STEP 6: STOP



5. Find the roots of a quadratic equation $ax^2 + bx + c = 0$.

STEP 1: Start

STEP 2: Enter the value of a, b and c

STEP 3: After getting these values, the program calculates the value of discriminant, dis= b^2-4ac

STEP 4: It checks the value of discriminant whether it is less than zero or greater than zero

STEP 5: If the dis< 0, the roots are imaginary

r1 = -b/2a +√dis*i/2a

r1 = -b/2a -√dis*i/2a

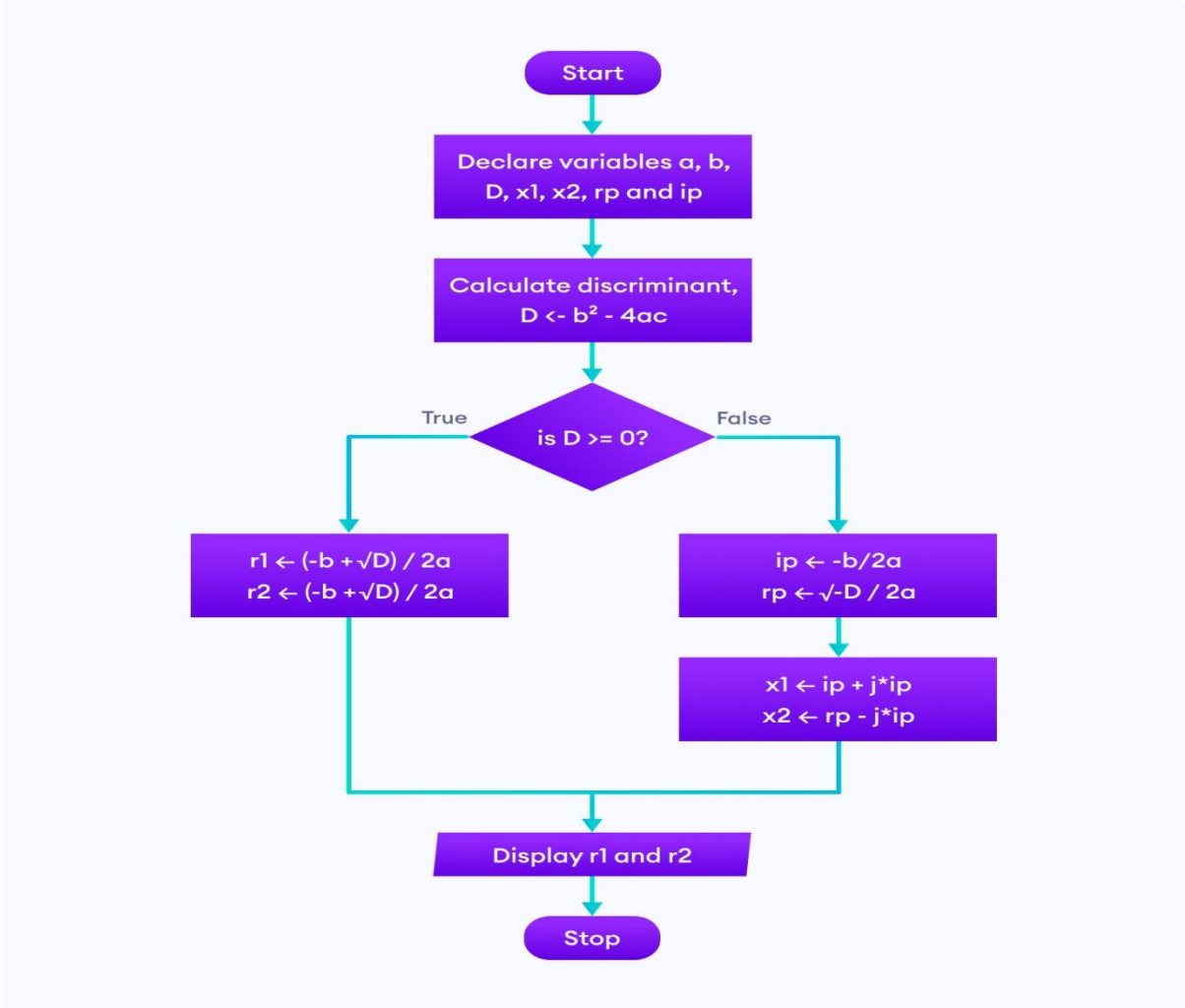
STEP 6: Otherwise, there exist two real roots: r1 and r2

r1 = (-b + √dis)/2

r2 = (-b – √dis)/2

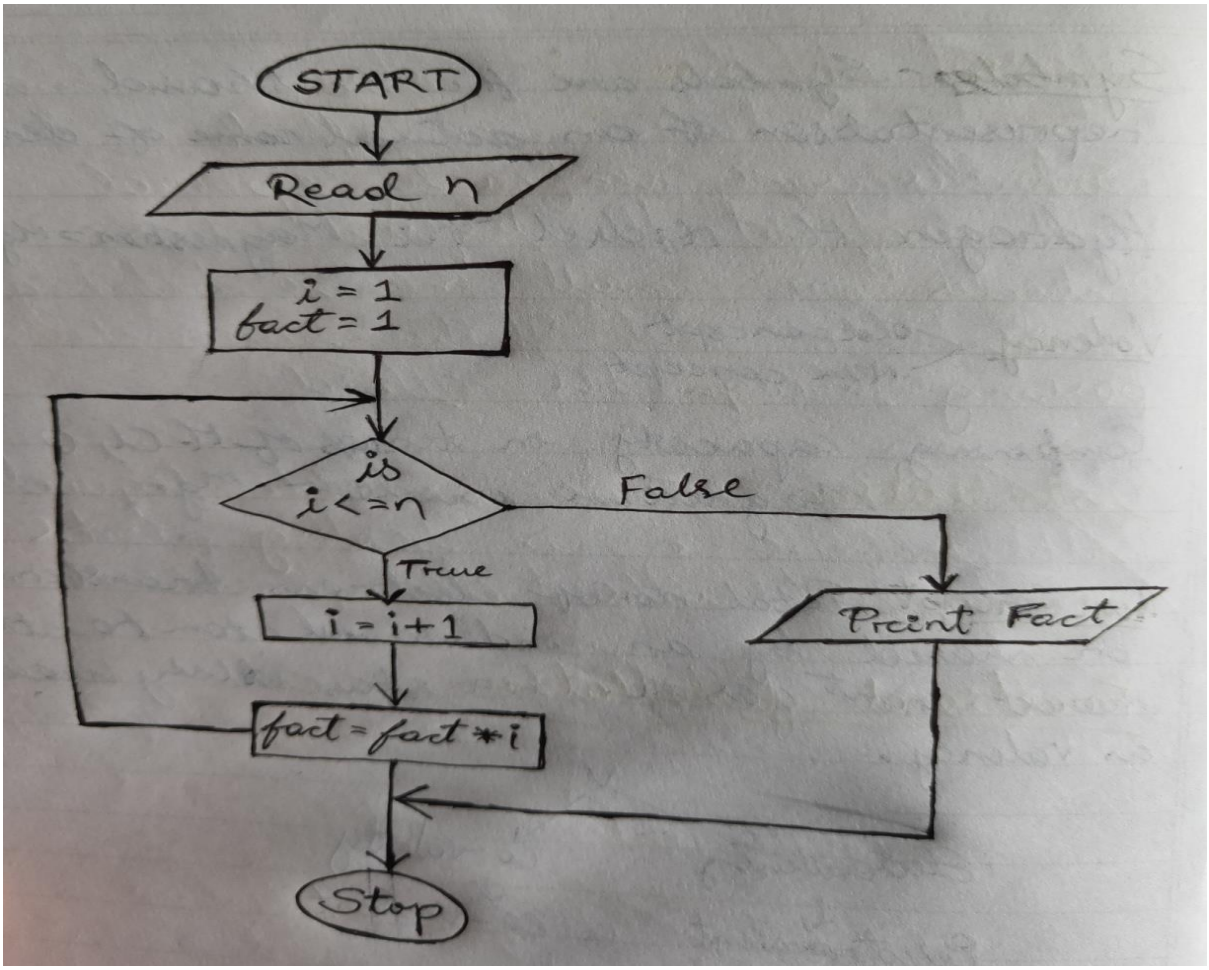
STEP 7: displays the roots as output

STEP 8: STOP



6. Find the factorial of a given number

step 1. Start
step 2. Read the number n
step 3. [Initialize]
i=1, fact=1
step 4. Repeat step 4 through 6 until i=n
step 5. fact=fact*i
step 6. i=i+1
step 7. Print fact
step 8. Stop


START
Read n
i = 1
fact = 1
is
i<=n
False
True
i = i+1
Print Fact
fact = fact * i
Stop