EX NO:1, a

DATE:03.12.2022

STUDENT DATA ANALYSIS

AIM :

To draw and write flowchart and algorithm for student data analysis .

ALGORITHM :

Step 1: start

Step 2: read no of students

Step 3: initialize i =1

Step 4: if i<=n

Step 5: get name,rollno,m1,,m2,m3,m4

Step 6: calculate avg=m1+m2+m3+m4/4

Step 7:goto step 4

Step 8: if avg >=90

Step 9: grade = A

Step 10: if 90>avg >=70

Step 11: grade = B

Step 12: if 70>avg >=50 else goto step 13

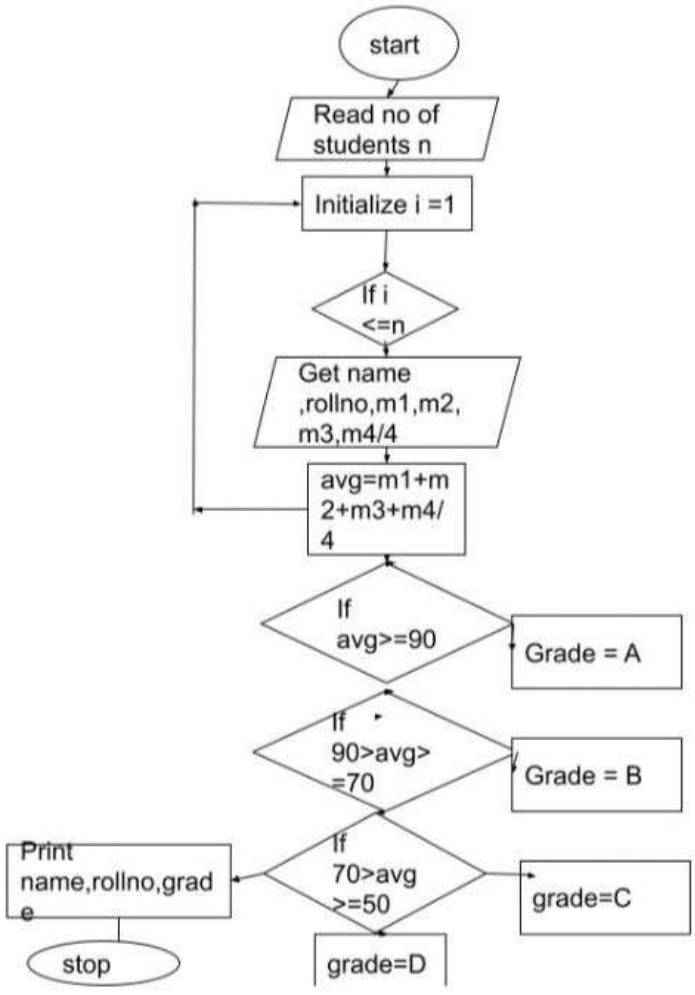
Step 13: grade = C

Step 14: grade = D

Step 15: print name,rollno,grade

Step 16:stop

FLOWCHART:



RESULT :

The flowchart and algorithm for the above program is written successfully

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TO DRAW FLOWCHART AND WRITE ALGORITHM FOR THE FOLLOWING PROBLEM

EX NO:1, b

DATE:03.12.2022

WEIGHT OF A MOTOR BIKE

AIM :

To draw and write flowchart and algorithm for weight of a motor bike

ALGORITHM:

Step 1: start

Step 2: get goss vehicle weight rating GVMR

Step 3: get dry weight DW

Step 4: get fuel weight FW

Step 5: get rider weight RW

Step 6: get passenger weight PW

Step 7: calculate total = DW+FW+RW+PW

Step 8: get load

Step 9: calculate loadweight = total+load

Step 10: calculate safeweight=GVMR -loadweight

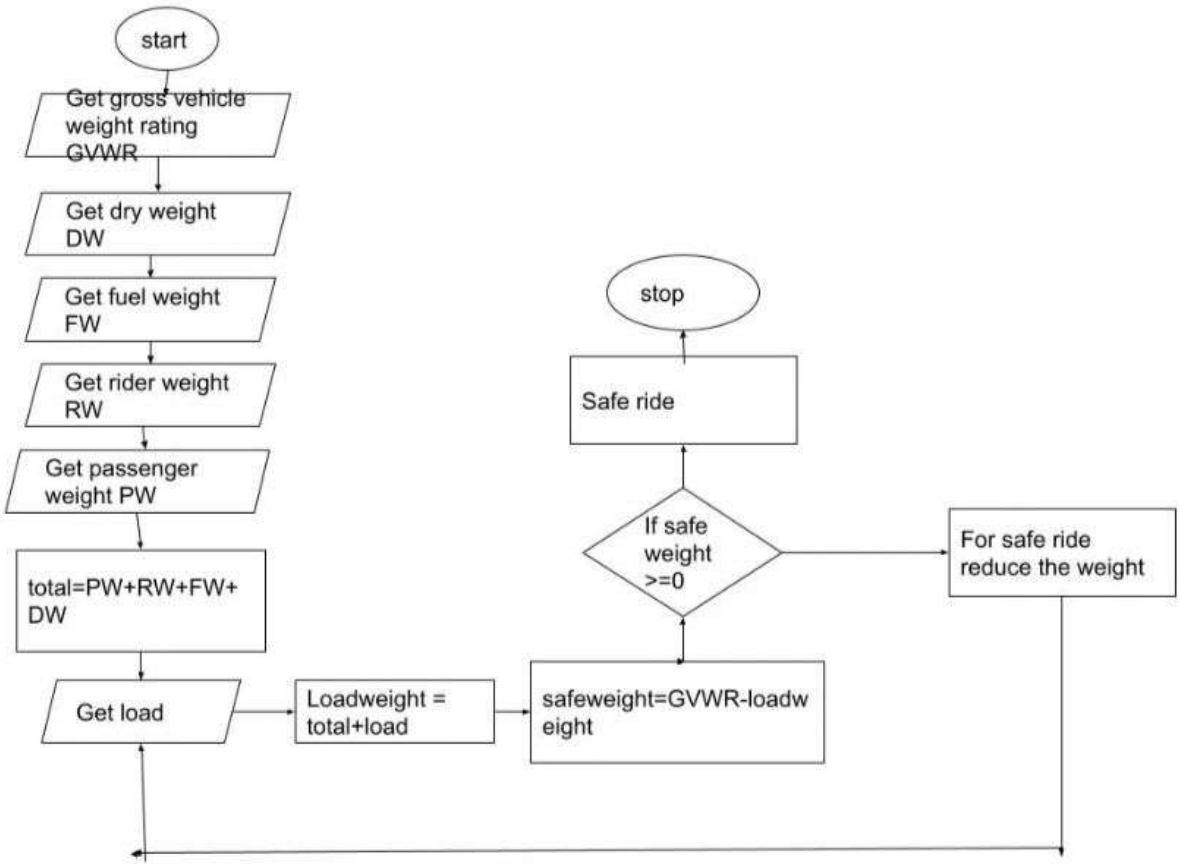
Step 11: if safeweight >=0

Step 12: print safe ride

Step 13: else

Step 14: Print for safe ride reduce weight go to step 8

FLOWCHART :



RESULT:

The flowchart and algorithm for the above program is written successfully

EX NO:1, c

DATE:03.12.2022

WEIGHT OF A STEEL ROD

AIM:

To draw and write flowchart and algorithm for weight of a steel rod

ALGORITHM :

Step 1: start

Step 2: get no of rods n

Step 3: initialize I -1 and weight = 0

Step 4: if i<=n goto step 8 else goto step 8

Step 5: get diameter D and length L

Step 6: calculate weight = D*D*L/ 162

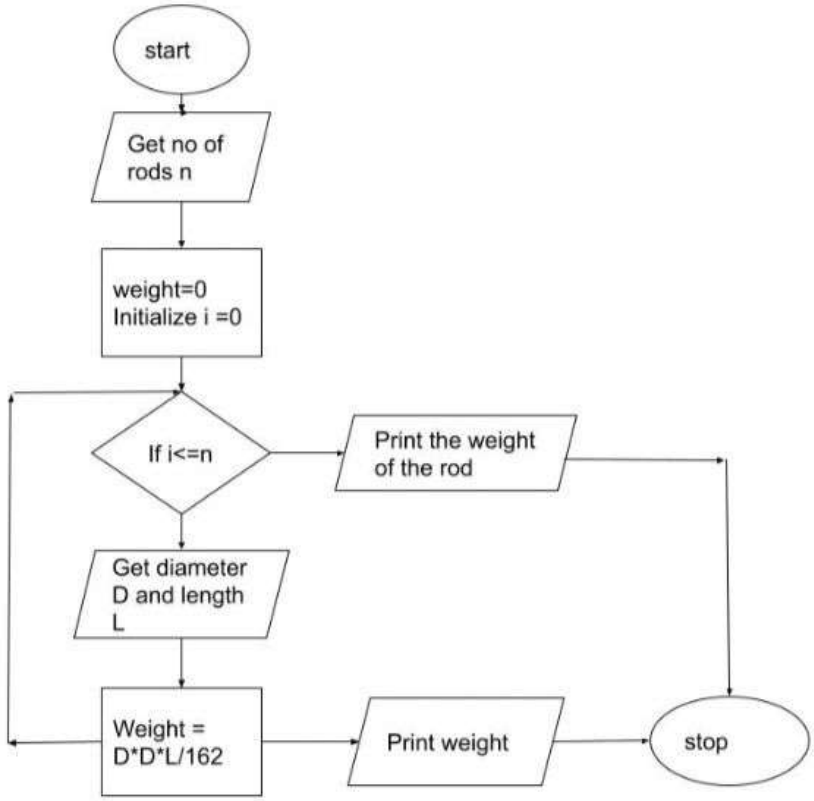
Step 7: goto step 4

Step 8: print weight

Step 9: print the weight of the rod

Step 10: stop

FLOWCHART :



RESULT:

The flowchart and algorithm for the above program is written successfully

EX NO:1, d

DATE:03.12.2022

RETAIL SHOP BILLING

AIM :

To draw flowchart and write algorithm for retail shop billing problem

ALGORITHM:

Step 1: start

Step 2: get no of items n

Step 3: initialize I =0 and bill=0

Step 4: if i<=n goto step 5 else goto step 7

Step 5: get quantity and price of the item

Step 6: calculate bill = quantity *price goto step 4

Step 7: if bill>=5000 goto step 9 else goto step 10

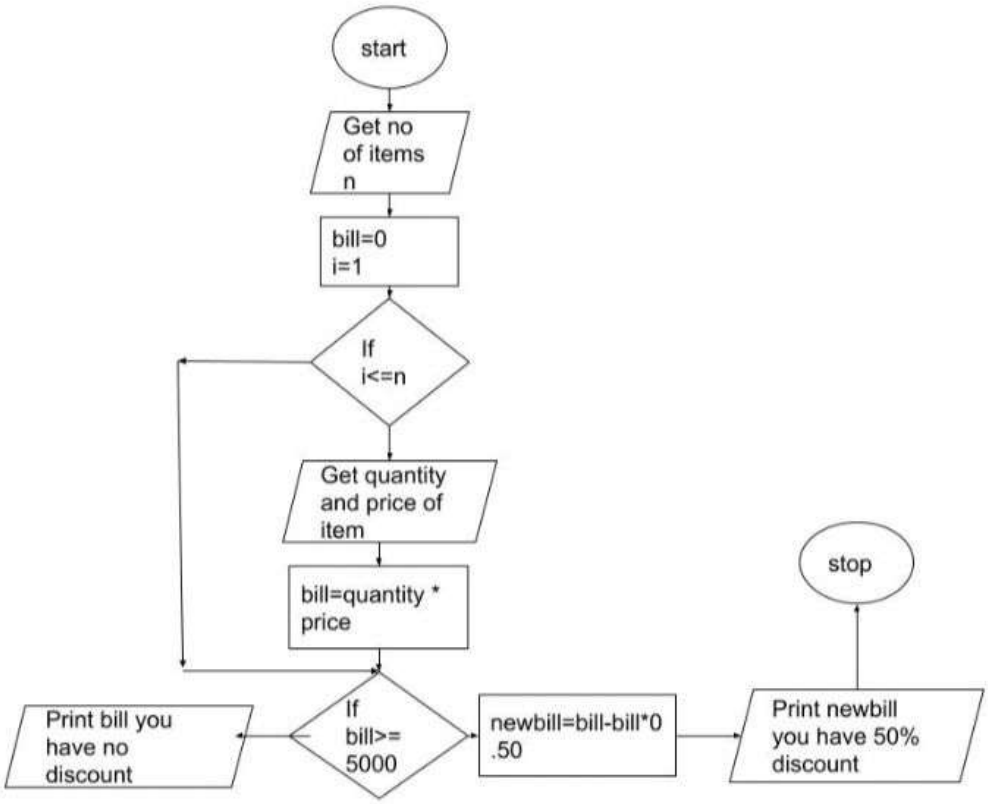
Step 8: calculate newbill = bill-bill*0.05 and goto step 4

Step 9: print newbill you have 50% of discount

Step 10: print bill and you have no discount

Step 11: stop

FLOWCHART :



RESULT:

The flowchart and algorithm for the above program is written successfully

TO DRAW FLOWCHART AND WRITE ALGORITHM FOR THE FOLLOWING PROBLEM

EX NO:1, e

DATE:03.12.2022

CALCULATE ELECTRIC BILL

AIM:

To draw and write algorithm for calculating electric bill

ALGORITHM :

Step 1: start

Step 2: get the previous units and current units

Step 3: units = previous units – current units

Step 4: if units <=100

4.1: energy charge =0,fixed charge =0,duty charge=0

Step 5: if units <=200

5.1: energy charge =0 +1.5*(units-100), fixed charge =20, duty charge=18

Step 6: if units <=500

6.1: energy charge =3.5*(units-100), fixed charge =30, duty charge=48

Step 7: if units >7500

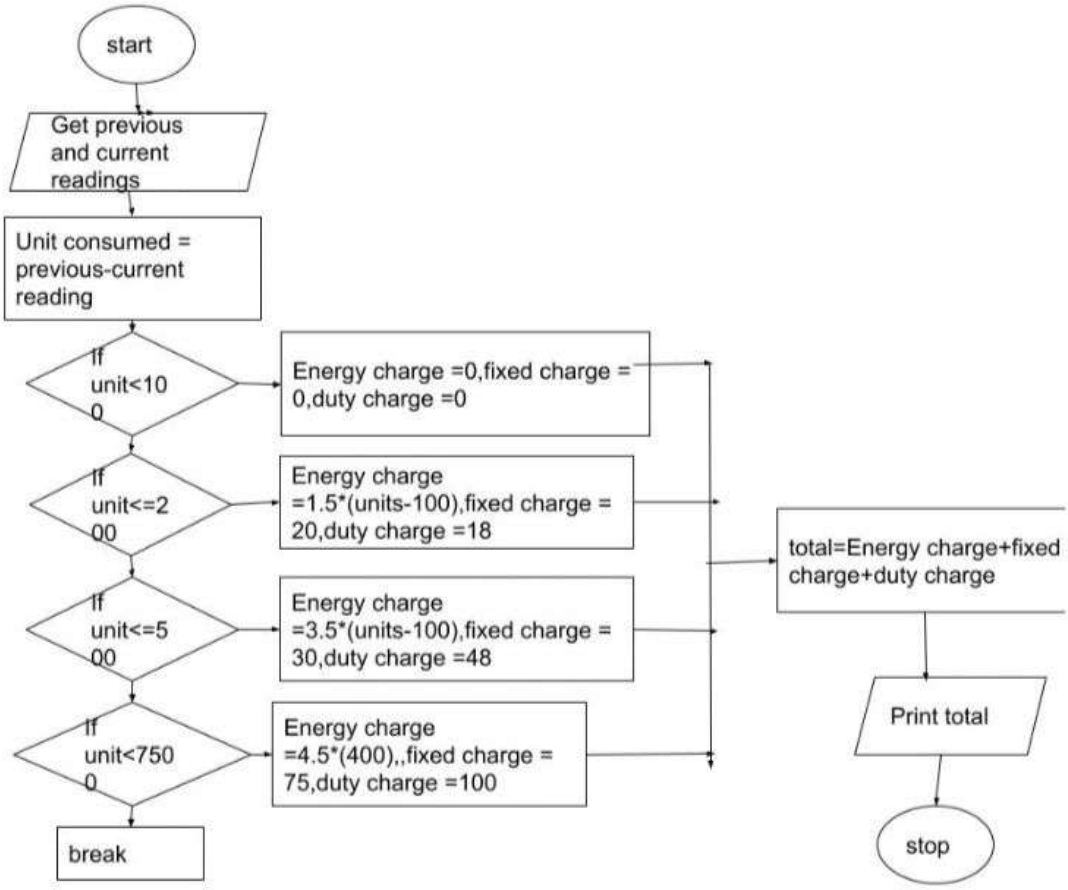
7.1: energy charge =4.5*(400)+6.0*(units-500), fixed charge =75, duty charge=100

Step 8:Bill = totalcharge +fixedcharge dutycharge

Step 9: display the current bill

Step 10:stop

FLOWCHART:



RESULT:

The flowchart and algorithm for the above program is written successfully

EX NO:1, f

DATE:03.12.2022

CALCULATE SINE SERIES

AIM:

to draw flowchart and write algorithm for sine series

ALGORITHM :

Step 1: start

Step 2: read x

Step 3: read n

Step 4: initialize i=1

Step 5: declare PI = 3.142

Step 6: x= x*PI/180

Step 7: t= x

Step 8: sum = x

Step 9: for i <= n

Step 10: yes

Step 11: t = -t*x*^2/2*i(2*i*1)

Step 12: sum = sum +t

Step 13: increment i by 1

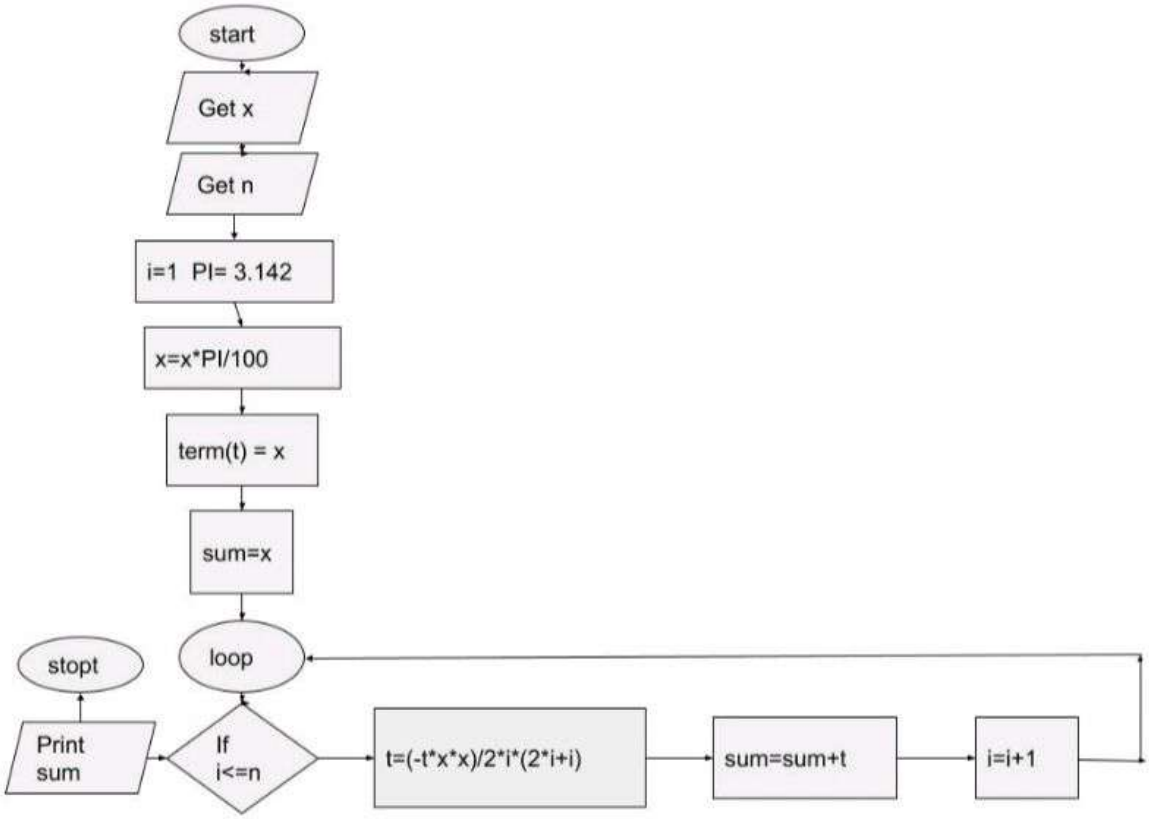
Step 14: goto loop

Step 15: no

Step 16: print sum

Step 17: stop

FLOWCHART:



RESULT :

The flowchart and algorithm for the above program is written successfully

TO DRAW FLOWCHART AND WRITE ALGORITHM FOR THE FOLLOWING PROBLEM

EX NO:1, g

DATE:03.12.2022

COMPUTE ELECTRICAL CURRENT IN 3-PHASE AC CIRCUIT

AIM:

To draw flowchart and write algorithm for computing electrical current in 3-phase AC circuit

ALGORITHM:

Step 1: start

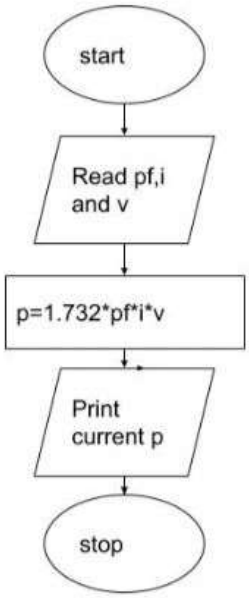
Step 2: read values of PF,I and V

Step 2: Calculate P = 1.732*PF*I*V

Step 2: Print current P

Step 2: stop

FLOWCHART:



RESULT:

The flowchart and algorithm for the above program is written successfully