



JAVA ASSIGNMENTS-1

Upto Control Structuers

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Introductory Programs

1. Write a program to calculate simple interest given principal, number of years and rate of interest
2. Write a program to calculate the area of a triangle given three sides
3. Write a program to add 2 numbers
4. Write a program to find the area of a circle
5. Write a program to accept the sides of a rectangle and prints the area and perimeter
6. Write a program to accept 2 integers and swap them

Conditional statements:

7. Write an appropriate control structure that will get value of a temperature and print one of the following messages
 - a. ICE, if the value of temp is less than 0.
 - b. WATER, if the value of temp lies between 0 and 100.
 - c. STEAM, if the value of temp exceeds 100.

Can a switch statement be used here?

8. Write a program to check if a number is positive, negative or zero
9. Write a program that takes two integers, num1 and num2 and prints true if num1 is divisible by num2 and else false
10. Given 3 sides of a triangle, find whether it is equilateral, scalene or isosceles
11. Write a program to accept the age of a person and print if the person is eligible to vote. For voting the person should be at least 18 years of age
12. Write a program to accept 2 integers. The program should print "Equal" if they are equal, "Large" if the first number is larger than the second and "Small" if the first number is smaller than the second one
13. A sales man's commission is to be computed as follows

| Sales Amount | Commission |
|------------------------|-------------------------------|
| Upto Rs. 10000 | Rs. 500 |
| Rs. 10001 to Rs. 12000 | Plus 10% on additional amount |
| Rs. 12001 to Rs. 15000 | Plus 15% on additional amount |
| Beyond Rs. 15000 | Plus 20% on additional amount |

Ex. Sales amount – 13000

Commission – $500 + 2000 \times 10/100 + 1000 \times 15/100 = \text{Rs.}850$

Display Sales Amount and Commission.

14. Develop a Java application to generate Electricity bill.

Create a class with the following members: Consumer no., consumer name, previous month reading,

current month reading, type of Electric Bill connection (i.e domestic or commercial).

Compute the bill amount using the following tariff.

If the type of the EB connection is domestic, calculate the amount to be paid as follows:

- First 100 units - Rs. 1 per unit
- 101-200 units - Rs. 2.50 per unit
- 201 -500 units - Rs. 4 per unit
- > 501 units - Rs. 6 per unit

If the type of the EB connection is commercial, calculate the amount to be paid as

follows :

- First 100 units - Rs. 2 per unit
- 101-200 units - Rs. 4.50 per unit
- 201 -500 units - Rs. 6 per unit
- > 501 units - Rs. 7 per unit

Output :

ELCTRICITY BILL

Consumer Number: 101

Consumer Name: AAA

Consumer Previous Units: 310

Consumer Current Units : ₹ 480

Type of EBConnection: Domestic

Total Amount(Rs.): 2030.00

Loops:

1. Write a program to find largest mark among n students
2. Write a program to check if a given integer is a palindrome
3. Determine whether a given no. is Armstrong
4. Write a program to convert a given integer to equivalent Roman number
5. Write a program to determine if a given integer is a prime no.

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