

Unit -2: Token, Expressions and Control Structures

Assignments:

1. Explain the operators available in Java Programming language?
2. Define the loop and explain all the types with suitable examples.
3. Write a Java Program to print first n prime numbers.
4. Define access modifiers. Explain access modifiers in java with examples.
5. Write an application that asks the user to enter two integers, obtains them from the user and displays the larger number followed by the words "is larger". If the numbers are equal, print the message "These numbers are equal".
6. Write an application that asks the user to enter two integers, obtains them from the user and prints their sum, product, difference and quotient (division).
7. Explain what happens when a Java program attempts to divide one integer by another. What happens to the fractional part of the calculation? How can you avoid that outcome?
8. A large company pays its salespeople on a commission basis. The salespeople receive \$200 per week plus 9% of their gross sales for that week. For example, a salesperson who sells \$5000 worth of merchandise in a week receives \$200 plus 9% of \$5000, or a total of \$650. You've been supplied with a list of the items sold by each salesperson. The values of these items are as follows:

| Item | Value |
|------|---------|
| 1 | 233.999 |
| 2 | 129.75 |
| 3 | 99.95 |
| 4 | 350.89 |

Develop a Java application that inputs one salesperson's items sold for last week and calculates and displays that salesperson's earnings. There's no limit to the number of items that can be sold.

9. Describe Jumping statement in java? Explain break, continue and return with suitable examples.

10. Explain different type of control statements used in Java.
11. Explain the different types of variables used in java. Explain each with suitable java program also explain the scope of each type of variable.
12. What are the primitive data types in java? Mention each data type in details with proper syntax and example.
13. How do you define constants in java? Give a proper example.
14. Write an application that ask the user to provide a single character from the alphabet. Print vowel or consonant depending on the user input.
15. A college has following rule for percentage:

| Percentage | Description |
|------------|-----------------|
| Above 80 | Distinction |
| 60 to 80 | First Division |
| 45 to 60 | Second Division |
| 35 to 45 | Pass Division |
| Below 35 | Fail |

Write a Java program to take input marks of five subjects of a student and calculate the total, percentage and display the obtained result as mentioned above in the description.

16. Write a java program and print the Fibonacci series up to n.
17. Write an application to take input range from the user, count the number of odd and even. Also display the sum of odd and even numbers.
18. Write short notes on the following:
 - a. Type conversion and Casting
 - b. Arrays