

1. Write a Java Program to reverse a string
2. Write a Java Program to swap two user given integer numbers without using the third variable.
3. Write a Java Program to count the number of words in a string
4. Write a Java Program to find whether a string or number is palindrome or not.
5. Write a Java Program to print the Fibonacci series.
6. Write a Java Program to find the duplicate characters in a string
7. Write a Java Program to find the second-highest number from an user given integer array.
8. Write a Java Program to remove all white spaces from a string.
9. Write a java program to print square root of an user given integer number.
10. Write a java program to check if two given String is Anagram of each other.
11. Write a java program to Print all permutations of a user given String.
12. Write a java program to reverse a linked list.
13. Write java program to operate following sorting
a.Insertion sort b.Bubble sort c.selection sort d.quick sort e.merge sort
14. 14. Write java prog to identify user given integer number is
a.prime or not b.Armstrong or not c.Pallindrome or not d.magic number or not
15. Write java prog to implement stack and queue
16. .Write java prog to find out
a. sum of two matrix
b. multiplication of two matrix
c. transpoze of matrix
d. identify matrix is identity or not
17. Write a java program to create pyramid of characters.
18. Write a java prog to check if two arrays contains same elements?
19. Write a java prog to Shuffle an Array in Java.
20. Write a java prog how to merge two lists in java.
21. How to prove String is immutable programatically?
22. How you can able to create mutable string in java explain programatically.
23. Write a java Program to Show Diamond Problem with Multiple Inheritance.
24. Show examples of overloading and overriding in Java by using program.
25. We have to calculate the area of a rectangle, a square and a circle.
Create an abstract class 'Shape' with three abstract methods namely
'RectangleArea' taking two parameters, 'SquareArea' and 'CircleArea' taking one parameter each.
The parameters of 'RectangleArea' are its length and breadth,
that of 'SquareArea' is its side and that of 'CircleArea' is its radius.
Now create another class 'Area' containing all the three methods
'RectangleArea', 'SquareArea' and 'CircleArea' for printing the area of rectangle, square and circle respectively.
Create an object of class 'Area' and call all the three methods.
26. Create a class named 'Member' having the following members:
Data members
1 – Name 2 – Age 3 - Phone number 4 – Address 5 - Salary
It also has a method named 'printSalary' which prints the salary of the members.
Two classes 'Employee' and 'Manager' inherits the 'Member' class. The 'Employee' and 'Manager' classes have data members 'specialization' and 'department' respectively. Now, assign name, age, phone number, address and salary to an employee and a manager by making an object of both of these classes and print the same.
27. Write a program to print the names of students by creating a Student class.
If no name is passed while creating an object of Student class, then the name should be "Unknown",
otherwise the name should be equal to the String value passed while creating object of Student class.

28. .Lets create a bank account. Create a class named 'BankAccount' with the following data members
- 1 - Name of depositor
 - 2 - Address of depositor
 - 3 - Type of account
 - 4 - Balance in account
 - 5 - Number of transactions
- Class 'BankAccount' has a method for each of the following
- 1 - Generate a unique account number for each depositor
- For first depositor, account number will be BA1000, for second depositor it will be BA1001 and so on
- 2 - Display information and balance of depositor
 - 3 - Deposit more amount in balance of any depositor
 - 4 - Withdraw some amount from balance deposited
 - 5 - Change address of depositor
- After creating the class, do the following operations
- 1 - Enter the information (name, address, type of account, balance) of the depositors. Number of depositors are to be entered by user.
 - 2 - Print the information of any depositor.
 - 3 - Add some amount to the account of any depositor and then display final informaion of that depositor
 - 4 - Remove some amount from the account of any depositor and then display final informaion of that depositor
 - 5 - Change the address of any depositor and then display the final information of that depositor
 - 6 - Randomly repeat these processes for some other bank accounts and after that print the total number of transactions.
29. Write a java program to add two binary numbers.
30. Write a Java Program to subtract two complex numbers.
31. Write a Java Program to add two complex numbers.
32. Write a Java Program to convert char Array to String.
33. Write a Java Program to check if a given number is perfect square or not.
34. Write a Java Program for operate Linear Search.
35. Write a Java Program for operate Binary Search.
36. Java Program to Sort Elements in Lexicographical Order (Dictionary Order).
37. Java Program to Add Two Dates
38. Write a java program to find common elements between the two given arrays. Suppose given two arrays array1= {1,4,7, 9, 2} array2 = {1,7,3,4,5} the answer should be {1,4,7}
39. Write a java program to find out if the given String has all Unique Characters.
40. Write a java program to create deadlock between two threads.
41. Write a java program to count occurrences of each character in String in java. If the String is "Java Hungry" then the answer should be { =1, a=2, r=1, u=1, v=1, g=1, H=1, y=1, J=1, n=1 }
42. Write a java program To remove specific characters in the String .For example, If the original string is "Alive is awesome" and the user inputs string to remove "alwsr" then it should print "ive i eome" as output .
43. How to Convert Math number to equivalent readable word in java?
44. You are given two threads. You need to print odd numbers using one thread and even numbers using another thread. You need to print in natural order up to MAX.
- For example:
- If MAX is 10, you need to print 1 2 3 4 5 6 7 8 9 10
- So 1 3 5 7 9 will be printed by odd thread
- 2 4 6 8 10 will be printed by even thread.
45. Write a java program to find all pairs of elements in the given array whose sum is equal to a given number.

For example, if {4, 5, 7, 11, 9, 13, 8, 12} is an array and 20 is the given number, then you have to find all pairs of elements in this array whose sum must be 20. In this example, (9, 11), (7, 13) and (8, 12) are such pairs whose sum is 20.

46. Write a java program to separate zeros from non-zeros in the given array. You have to move zeros either to end of the array or bring them to beginning of the array.

For example, if {14, 0, 5, 2, 0, 3, 0} is the given array, then moving zeros to end of the array will result {14, 5, 2, 3, 0, 0, 0} and bringing zeros to front will result {0, 0, 0, 14, 5, 2, 3}.

47. Write a java program to find all the leaders in an integer array.

An element is said to be a leader if all the elements on it's right side are smaller than it. Rightmost element is always a leader.

For example, if {14, 9, 11, 7, 8, 5, 3} is the given array then {14, 11, 8, 5, 3} are the leaders in this array.

48. Write a java program to reverse a string with preserving the position of spaces. For example, if "I Am Not String" is the given string then the reverse of this string with preserving the position of spaces is "g ni rtS toNmAI".

49. Write a prog to find missing number in an array

If 'n' is the positive number and 'a' is an array of integers of length n-1 containing elements from 1 to n.

Then find the missing number in 'a' in the range from 1 to n.

Occurrence of each element is only once. If n = 8, then array 'a' will have 7 elements in the range from 1 to 8. For example {1, 4, 5, 3, 7, 8, 6}.

One number will be missing in 'a' (2 in this case). You have to find out that missing number.

50. Write a java program to generate random numbers.

51. Write a program to create a method to identify an user given number is prime or not. if the number is prime then throw user defined exception.

52. Write a program to create a method to identify an user given number is positive or not. if the number is negative then throw user defined exception.

53. Write java program to explain the following concepts

- a. single inheritance b. mutiple inheritance c. multilevel inheritance
- d. hierarchical inheritance e. hybrid inheritance

54. Write a java prog to create a normal calculator by using the concept of interface to operate addition, subtraction, multiplication and division.

55. Write a java program to reverse a singly linked list.

56. java prog to operate all kind of insertion and deletion operation for

- a. singly linked list
- b. doubly linked list
- c. circular linked list
- d. circular doubly linked list

57. Write java prog to operate the following operation for binary tree

- a. preorder traversal b. inorder traversal c. postorder traversal d. calculate height

58. Write a java prog to insert and delete new item in a binary search tree.

59. Write a java prog to find out the name of 2nd highest paid employee.

60. Write a java prog to sort an array in descending order.

61. Write a prog in c to count number of words in a given sentece until EOF is scan.

THEORY PART

62. Define basic principle of oops What is the difference between composition and aggregation?

63. Why java is platform independent .Why we not install jvm?

64. How does Java enable high performance? What is a Class and object? Can you inherit static members to a subclass? 5. Can you override the final method in Java?

65. What are the Java IDE's? What is JAVA? What are the features in JAVA?

66. What do you mean by Constructor? What is meant by Local variable and Instance variable?

67. Difference between overloading and overriding? What is meant by Interface?

68. What do you mean by public static void main(String args[])?What is meant by Abstract class?

69. What do you mean by constructor overloading? Define type of inheritance?
70. Difference between Array and Array List. What is the difference between heap memory and stack memory in Java?
71. What are the roles of final, finally, and finalize keywords in Java?
72. Difference between String, String Builder, and String Buffer .Define mutable and immutable Explain about Public and Private access specifiers.
73. Difference between Default and Protected access specifiers.
74. Difference between HashMap and Hash Table. Difference between HashSet and Tree Set.
75. What is mean by Collections in Java? What is garbage collection?
76. what are all the Classes and Interfaces that are available in the collections?
77. Explain about the different lists available in the collection.
78. Diff between final, finally, finalize? Can you debug a Java program while it's running? How? • What is an asynchronous event? • Which tools are best to use for testing Java code?
79. Diff between interface and abstract class? Cascade less Recoverable Schedules
80. Difference between IO and UTIL package in java
81. Explain the difference between error and exception
82. What is the difference between runtime polymorphism and compile-time polymorphism?
83. What is a subclass? • What is a superclass? • What is static polymorphism? • What is dynamic polymorphism?
84. Explain the concept of multithreading in Java? • What benefits does multithreading offer? • What are the different states of a thread lifecycle? • How to create a Java thread? • How to implement a thread in Java? • Tell about the concept of thread priority. • How do the threads in Java interact with each other? • Explain Thread Local in Java. • What are some ways to get thread safety? • What is the reason behind a sleep() thread being static? • What is a daemon thread, and how to create it? • What is deadlock? • Explain the concept of a thread pool and how can we create a thread pool.
85. Define the string in Java? • What are the ways for string declaration in Java? • What is the role of the string intern() method? • Explain the differences between String and StringBuffer? • When saving passwords in Java, developers choose a character array over a string. Why do they do so? • What are the reasons behind string being immutable? • State the differences between StringBuilder and StringBuffer in Java. •How can you compare two strings in Java? •Explain the role of the substring() method in Java? •Can you check whether a string is empty or not? If yes, how? • What are the ways for converting a string to a byte array? • How to find the longest palindrome in a Java string? • What is a string pool in Java?
86. • Is it possible to override a static method? If yes, how? • Which Java class is considered the base class? • State the difference between HashMap and HashSet. • Why Java strings are immutable? • What is a ClassPath in Java? • Explain the differences between StringBuffer and StringBuilder. • What is Java multithreading? • What is an applet in Java? • Explain garbage collection in Java. • What is inheritance in Java? • What is polymorphism in Java? • Explain Java serialization. • When should we use the transient variable? • Is it possible to call the start method twice? If yes, how? • How to make a class immutable in Java? What is a Java copy constructor? • How the sorting of custom objects is done in Java? • Explain the marker interface in Java. • Explain the differences between LinkedList and ArrayList.