**Java Practical List**

1. Find the sum of any number of integers entered as command line arguments
2. Find the factorial of a given number
3. Perform linear search on a single dimensional array using for loop.
4. Display a two-dimensional array using for-each loop
5. Convert a decimal to binary number
6. Write a program to create a “distance” class with methods where distance is computed in terms of feet and inches, how to create objects of a class and to see the use of this pointer
7. Modify the “distance” class by creating constructor for assigning values (feet and inches) to the distance object. Create another object and assign second object as reference variable to another object reference variable. Further create a third object which is a clone of the first object.
8. Write a program to show that during function overloading, if no matching argument is found, then java will apply automatic type conversions(from lower to higher data type)
9. Write a program to show the difference between public and private access specifiers. The program should also show that primitive data types are passed by value and objects are passed by reference and to learn use of final keyword.
10. WAP to check if a number is prime or not, by taking the number as input from the keyboard
11. WAP to find the sum of any number of integers interactively, i.e., entering every number from the keyboard, whereas the total number of integers is given as a command line argument
12. Write a program to show the use of static functions and to pass variable length arguments in a function.
13. Write a program to demonstrate the concept of boxing and unboxing.
14. Create a multi-file program where in one file a string message is taken as input from the user and the function to display the message on the screen is given in another file (make use of Scanner package in this program).
15. Write a program to create a multilevel package and also creates a reusable class to generate Fibonacci series, where the function to generate Fibonacii series is given in a different file belonging to the same package.
16. Write a program that creates and illustrates different levels of protection in classes/subclasses belonging to same package or different packages
17. Write a program “DivideByZero” that takes two numbers a and b as input, computes a/b, and invokes Arithmetic Exception to generate a message when the denominator is zero.
18. Write a program to show the use of nested try statements that emphasizes the sequence of checking for catch handler statements.
19. Write a program to create your own exception types to handle situation specific to your application (Hint: Define a subclass of Exception which itself is a subclass of Throwable).
20. (a) WAP to show working of different functions of String and StringBuffer class like setCharAt(), setLength(), append(), insert(), concat()and equals().

(b) WAP to reverse a String object and print the same.

(c) WAP to sort an array of strings using bubble sort.

1. Write a program to demonstrate priorities among multiple threads.
2. (a) WAP to create 3 threads using Runnable interface.

(b) WAP to create 4 threads using Thread class.

(c) WAP to demonstrate multithread communication by implementing synchronization among threads.

1. WAP to show use of Interfaces: Figure Interface. Classes Circle and Triangle. Method to implement: calcArea().
2. Create an abstract base class called Shape. It should contain 2 methods getcoord() and showCoord () to accept X and Y coordinates and to display the same respectively. Create a sub class called Rect. It should also contain a method to display the length and breadth of the rectangle called showCoord(). In main method, execute the showCoord() method of the Rect class by applying the dynamic method dispatch concept.
3. (a) Write a program that creates a Banner and then creates a thread to scroll the message in the banner from left to right across the applet’s window.

(b) Write a program that creates a Banner and then creates a thread to scroll the message in the banner from right to left across the applet’s window.

1. WAP to display an unknown number of paramaters using applets.
2. Write a program to get the URL/location of code (i.e. java code) and document(i.e. html file).
3. Write a program to demonstrate different mouse handling events like mouseClicked(), mouseEntered(), mouseExited(), mousePressed, mouseReleased() and mouseDragged().
4. Write a program to demonstrate different keyboard handling events.
5. Write a program to generate a window without an applet window using main() function.