**LAB -1 (Object Oriented Programming in Java)**

1. Write a program to give the example of control statements.
   1. If statements.
   2. Switch Statements.
   3. For loop.
   4. While Statements.
   5. Do statements
2. Write a program give example for command line arguments.
   1. To find the sum of command line arguments and count the invalid integers entered.
   2. To get the name using command line.
3. Write a program to arrange the numbers in ascending order.
4. Create class box and box3d. box3d is extended class of box. The above two classes going to pull fill following requirement

* Include constructor.
* set value of length, breadth, height
* Find out area and volume.

**Note:** Base class and sub classes have respective methods and instance variables.

1. Write a program to create a class named shape. In this class we have three sub classes circle, triangle and square each class has two member function named draw () and erase (). Create these using polymorphism concepts.
2. Create your own class and create three methods inside that class as method1(), method2() and method3(). Invoke method2() from method1() and method3() from method2().

**Tasks:**

* The exception must have occurred in your program.
* method3() should throws the exception.
* method1() should handle the exception using try-catch-finally blocks.

1. Create class Number with only one private instance variable as a double primitive type. To include the following methods (include respective constructors) isZero( ), isPositive(), isNegative( ), isOdd( ), isEven( ), isPrime(), isAmstrong() the above methods return boolean primitive type. Also call from main method getFactorial(), getSqrt(), getSqr(), sumDigits(), getReverse() methods which return double primitive type.
2. Write a program to create interface named test. In this interface the member function is square. Implement this interface in arithmetic class. Create one new class called ToTestInt in this class use the object of arithmetic class.
3. Write a program for multithreading. Your program should extends the Thread class and run() method should include for loop with Thread.sleep() function to get each thread run.
4. Write a program to read a file from the source location and write into a new file and store that file in the destination location.

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