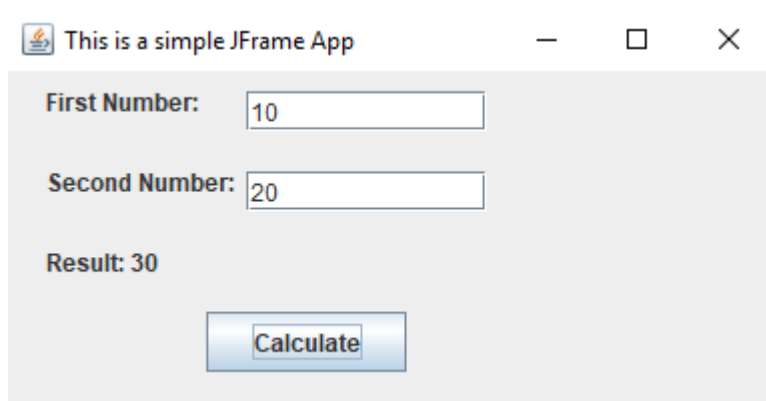# Lab -3   (Assignment - 3)

1) Write a program to demonstrate exception handling using **try, catch and finally** block.
2) Write a program to handle following exceptions:
   a) **Arithmetic**   b) **NullPointer**   c) **ArrayIndexOutOfBound**
   d) **StringIndexOutofBound**   e) **NumberFormatException**
3) Write to program to demonstrate **throw and throws** keyword.
4) Write a program to demonstrate **nested try** block.
5) Write a program to demonstrate **multiple catch** block.
6) Write a program to input any string and convert it to **uppercase and lowercase**.
7) Write a program to demonstrate character extraction using **charAt()** and **getChars()** methods.
8) Write a program to demonstrate string comparison using **equals()** and **compareTo()** methods.
9) Write a program to search any string **indexOf()** and **lastIndexOf()** methods.
10) Write a program to demonstrate modification of string using **substring()**, **replace()**, **concat()** and **trim()** methods.
11) Write a program to demonstrate various methods of **String Buffer** class.
12) Write a program to demonstrate thread by **extending Thread class**.
13) Write a program to demonstrate thread by **implementing Runnable interface**.
14) Write a program to demonstrate **sleep()** and **stop()** methods.
15) Write a program to **get and set priorities** in thread.
16) Write a program to demonstrate **Inter Thread Communication** using Synchronization.
17) Write a program to demonstrate **deadlock condition**.
18) Write a program to **push and pop items** in and from stack.
19) Write a program to demonstrate **vector**.
20) Write a program to demonstrate **hash table**.
21) Write a program to generate **random number** in Java.
22) Write a program to implement **Map, List and Set Interface**.
23) Write a program to demonstrate **Array List, Linked List, Hash Set and Tree Set**.
24) Write a program to demonstrate **Iterator and Comparator** in Collection Framework.
25) Write a **swing program** for the following:
    a)

b)

26) Write a swing program to demonstrate **key and mouse event handling**.

27) Write a program to create **dialog box**.

28) Write a program of your choice to demonstrate basic Java Applet.

29) Write a program to create **database connection** and demonstrate **data manipulation** using **JDBC** (Show Basic **CRUD** operation).

30) Write a program to create a file and demonstrate basic file read and write operation.