

## LAB # 6 Deadlock in

### concurrency:

### OBJECTIVE:

Implementing multiple thread blocked resources with help of lock and deadlock conditions.

### Lab Task:

Create three threads by implementing thread synchronization block through 3 locks. (Hint: Apply un-sequenced lock to analyze deadlock and solve it through provided solution)

```

1 class MyThread extends Thread {
2     public MyThread(String name) {
3         super(name);
4     }
5     @Override
6     public void run() {
7         synchronized (Lab6Solution.LockA) {
8             System.out.println(getName() + " acquired Lock A");
9
10            synchronized (Lab6Solution.LockB) {
11                System.out.println(getName() + " acquired Lock B");
12
13                synchronized (Lab6Solution.LockC) {
14                    System.out.println(getName() + " acquired Lock C");
15                }
16            }
17        }
18        System.out.println(getName() + " released all Locks\n");
19    }
20 }
21
22 public class Lab6Solution {
23     public static final Object LockA = new Object();
24     public static final Object LockB = new Object();
25     public static final Object LockC = new Object();
26
27     public static void main(String[] args) {
28         MyThread t1 = new MyThread("Sania");
29         MyThread t2 = new MyThread("004");
30         MyThread t3 = new MyThread("Thread-3");
31
32         t1.start();
33         t2.start();
34         t3.start();
35     }
36 }

```

Output - lab6SCD (run) x









```

run:
Sania acquired Lock A
Sania acquired Lock B
Sania acquired Lock C
004 acquired Lock A
Sania released all Locks

004 acquired Lock B
004 acquired Lock C
004 released all Locks

Thread-3 acquired Lock A
Thread-3 acquired Lock B
Thread-3 acquired Lock C
Thread-3 released all Locks

```

 <b>sania1409</b> Add files via upload	
 README.md	Initial commit
 lab 01_scd.docx	Add files via upload
 lab 02_scd.pdf	Add files via upload
 lab 03_scd.docx	Add files via upload
 lab 04_scd.docx	Add files via upload
 lab 05_scd.docx	Add files via upload
 lab 06_scd.docx	Add files via upload