```
1 public class Deadlock {
      public static void main(String[] args) {
3
           // Declare resources as Objects
4
           final Object resource1 = "resource1";
           final Object resource2 = "resource2";
 6
 7
           // Thread 1
           Thread thread1 = new Thread(() -> {
8
9
               synchronized (resource1) {
                   System.out.println("thread1: locked resource1");
10
11
                   try {
                       Thread.sleep(50); // Simulate some work
12
13
                   } catch (InterruptedException e) {
14
                       e.printStackTrace():
15
                   System.out.println("thread1: waiting for resource2");
16
17
18
                   // Attempt to acquire resource2
19
                   synchronized (resource2) {
                       System.out.println("thread1: locked resource2");
20
21
22
               }
23
          });
24
25
           // Thread 2
26
           Thread thread2 = new Thread(() -> {
27
               synchronized (resource2) {
                   System.out.println("thread2: locked resource2");
28
29
                   try {
30
                       Thread.sleep(50); // Simulate some work
                   } catch (InterruptedException e) {
31
32
                       e.printStackTrace();
33
                   System.out.println("thread2: waiting for resource1");
34
35
                   // Attempt to acquire resource1
36
37
                   synchronized (resource1) {
38
                       System.out.println("thread2: locked resource1");
39
40
               }
          });
41
42
           // Start the threads
43
44
           thread1.start();
           thread2.start();
45
46
      }
47 }
48
```